

# WORLD WIDE STANDARD CABLE-Series

Everything make it possible.

**NICHIGOH CABLE**  
NICHIGOH COMMUNICATION ELECTRIC WIRE CO.,LTD.

日合通信電線株式会社

■本社・本社工場  
〒518-0855 三重県伊賀市上野万町2175-1  
2175-1, UENOYOROZUMACHI, IGA-CITY, MIE,  
518-0855 JAPAN  
TEL.0595-24-7531 FAX.0595-24-7535  
URL <http://www.nichigoh.co.jp>

お問い合わせは、お気軽に  
Please feel free to contact with us.

※記載の内容は、製品改良のため予告なく変更することがありますので、ご了承下さい。

日合通信電線株式会社

●ワールド ワイド スタンダード ケーブルシリーズ



## ご使用を頂く前に Recommendation



### 注意事項

- 1.電線の選定にあたり、国家の法律、州法などの地域の規制及び規格、その他関連する規制等に適合した選定をお願いします。
- 2.カタログに記載されている性能及び特性等の値は規格値です。実際の環境下での性能を保証する物では御座いません。
- 3.本カタログの製品の仕様は規格・品質・性能向上の為、予告無く変更することが御座います。

### Notice

1. The selection and installation of cables and wire shall be in accordance with, local law, state law and national regulation.
2. The characteristics and specifications of cables and wire does not guarantee under the actual installation, and environment.
3. Specifications of cable and wire would be modified without any notice due to standard up-date and quality performance.



### 警告

- 1.通電中に人や物が導体に触れるような敷設はしないで下さい。
- 2.許容電流を超えての使用はしないで下さい。

### Warning

1. Do not install a cable and wire with any contact to the live parts during operation.
2. Do not use a cable and wire over current carrying capacities.



### 注意

- 1.電線をロープもしくは紐の代わりとして使用しないで下さい。
- 2.電線の運搬には十分注意して下さい。
- 3.電線を解体しての使用はしないで下さい。
- 4.本カタログの許容電流はあくまで参考値です。(IEC 60364-5-52に適合)  
実際の使用においては、各国の規格及び法律などを参照の上、選定下さい。

### Attention

- 1.Do not use a cable and wire such as rope, and so on.
- 2.Please pay attention to a cable and wire during transportation.
- 3.Do not use the disassembled cable and wire.
- 4.Current Carrying Capacities of this catalogue are reference value (compliance with IEC 60364-5-52)

## WORLD WIDE STANDARD CABLE-Series

# W.W.S.C.-Series

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# WORLD WIDE STANDARD CABLE for Globalization

ワールド ワイド スタンダード ケーブル グローバリゼーション

## Merit 1 在庫の軽減

ヨーロッパ(CE)・アメリカ(UL)・カナダ(cUL)・中国(CCC)向けなどのケーブル在庫は、全てW.W.S.C.に統一できるので在庫の軽減が計れます。

### Reduction of stock

No more duplicated inventory due to depending on WORLD WIDE STANDERD CABLE.

## Merit 2 設計の簡素化

納入先毎に設計を変更する必要がなく、通関手続きも簡素化できます。

### Simplification of design

Get the easy way to export your product without trouble on design and customs!

## Merit 3 小ロット・短納期

W.W.S.C.なら小ロット・短納期で済みます。

### Small lot & short delivery term

Small lot and short delivery term are available!

WORLD WIDE STANDARD CABLE-Series

# W.W.S.C.-Series

欧州

EUROPEAN market

EN/IEC 60204-1  
CE-Marking  
IEC 60227  
EN 50525  
EAC  
UKCA  
etc

アジア

ASIA market

JIS  
PSE  
IEC  
CCC  
etc

北米

NORTH AMERICA market

NFPA 70 (NEC)  
NFPA 79  
UL  
c-UL (CSA)  
etc

南米

SOUTH AMERICA market

NBR/NM/INMETRO  
etc

## 適応可能範囲

下記の国々は弊社のワールドワイドスタンダードケーブルのIEC適応可能範囲を示しています。  
国及び地域によっては認証が必要な地域も御座いますので、事前に確認下さい。

## Application

The following countries are applicable to  
WORLD WIDE STANDARD CABLE.

WORLD WIDE STANDARD CABLE-Series

# W.W.S.C.-Series



**IEC** 国際電気委員会  
INTERNATIONAL ELECTROTECHNICAL  
COMMISSION

**EAC** EAC マーク  
EAC MARK

**CE** CEマーキング  
CE-MARKING

**D** デムコ  
DEMKO  
デンマークの認証機関  
CERTIFICATION BODY OF DENMARK

**UL** UL レコグナイズド  
UNDERWRITERS LABORATORIES INC.  
UL RECOGNIZED

**UL** UL リスティング  
UNDERWRITERS LABORATORIES INC.  
UL LISTING

**PS E** 電気用品安全法  
DENAN LAW

**CCC** 中国強制認証  
CCC (China Compulsory Certification)

**TÜV** TÜV マーク  
TÜV RHEINLAND MARK

**UK CA** UKCAマーク  
UK Conformity Assessed

**INMETRO** INMETRO マーク  
INMETRO MARK

**c-UL** c-UL レコグナイズド  
UNDERWRITERS LABORATORIES INC.  
c-UL RECOGNIZED

**c-UL** c-UL リスティング  
UNDERWRITERS LABORATORIES INC.  
c-UL LISTING

W.W.S.C.シリーズ製品一覧  
WORLD WIDE STANDARD CABLE-Series Product list.

No.1

| 製品名<br>Product name                         | 公称断面積<br>Nominal cross sectional area |                    | 規格/認定マーク<br>Standard / Certification mark |    |      |              |     |     |                                |                                 |    |     |                                                            |     |  |   |   |                                |                                |                               |      |           | 使用用途<br>Use                         |                            |                           | 備考<br>Remark                       | Page No. |                                    |     |
|---------------------------------------------|---------------------------------------|--------------------|-------------------------------------------|----|------|--------------|-----|-----|--------------------------------|---------------------------------|----|-----|------------------------------------------------------------|-----|--|---|---|--------------------------------|--------------------------------|-------------------------------|------|-----------|-------------------------------------|----------------------------|---------------------------|------------------------------------|----------|------------------------------------|-----|
|                                             | AWG                                   | mm <sup>2</sup>    | 国際規格                                      | 欧州 | 英国   | アメリカ         |     |     |                                |                                 |    |     | カナダ                                                        |     |  |   |   |                                | 中国                             | ロシア                           | ブラジル | 日本        | 固定・可動<br>Fixed or constant movement | 配線箇所<br>Wiring application | ノイズ対策<br>EMC              |                                    |          |                                    |     |
|                                             |                                       |                    |                                           |    |      | NFPA 70 / 79 |     |     |                                |                                 |    |     | AWM style                                                  | CEC |  |   |   |                                |                                |                               |      |           |                                     |                            |                           |                                    |          |                                    |     |
|                                             |                                       |                    | IEC                                       | CE | UKCA | TC-ER        | STO | MTW | THHW                           | TFF                             | CM | CL3 |                                                            | STO |  |   |   | CIC                            | CM                             | TEW                           | TW75 | AWM (CSA) |                                     |                            |                           |                                    |          | CCC                                | EAC |
| World Wide Wire-Series ■ ワールドワイドワイヤーシリーズ    |                                       |                    |                                           |    |      |              |     |     |                                |                                 |    |     |                                                            |     |  |   |   |                                |                                |                               |      |           |                                     |                            |                           |                                    |          |                                    |     |
| H05V-K+RV                                   | 21-18                                 | 0.5—1.0            | ○                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 1007                                                       | —   |  | — | — | —                              | —                              | ○                             | ○    | ○         | ○                                   | ○                          | 固定用<br>Fixed wiring       | 機器内部<br>Internal                   | —        |                                    | 13  |
| MTW+H05V-K                                  | 20-18                                 | 0.5—1.0            | ○                                         | ○  | ○    | —            | —   | ○   | —                              | ○<br>(0.75—1.0mm <sup>2</sup> ) | —  | —   | 1015                                                       | —   |  | — | — | ○                              | —                              | ○                             | ○    | ○         | ○                                   | ○                          | 固定用<br>Fixed wiring       | 機器内部<br>Internal                   | —        |                                    | 15  |
| MTW+H07V-K                                  | 16-450MCM                             | 1.5—240            | ○                                         | ○  | ○    | —            | —   | ○   | ○<br>(2.5—240mm <sup>2</sup> ) | ○<br>1.5mm <sup>2</sup>         | —  | —   | 1015                                                       | —   |  | — | — | ○<br>(1.5—120mm <sup>2</sup> ) | ○<br>(2.5—240mm <sup>2</sup> ) | ○<br>(50—240mm <sup>2</sup> ) | ○    | ○         | ○                                   | ○                          | 固定用<br>Fixed wiring       | 機器内部<br>Internal                   | —        |                                    | 15  |
| MTW-F                                       | 10-450MCM                             | 6.0—240            | ○                                         | ○  | —    | —            | —   | ○   | —                              | —                               | —  | —   | 1015                                                       | —   |  | — | — | ○<br>(6.0—120mm <sup>2</sup> ) | —                              | ○<br>(50—240mm <sup>2</sup> ) | —    | —         | —                                   | ○                          | 固定用<br>Fixed wiring       | 機器内部<br>Internal                   | —        | 柔軟タイプ<br>Soft type                 | 17  |
| Recognition-Series ■ レコグニションシリーズ            |                                       |                    |                                           |    |      |              |     |     |                                |                                 |    |     |                                                            |     |  |   |   |                                |                                |                               |      |           |                                     |                            |                           |                                    |          |                                    |     |
| NFKVV-SB(W)                                 | 25—20                                 | 0.2—0.5            | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 20276                                                      | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部<br>Internal                   | ○        |                                    | 21  |
| RO-FLEX 2464-1061T                          | 26—22                                 | 0.14—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | —        |                                    | 23  |
| RO-FLEX 2464-1061TS                         | 26—22                                 | 0.14—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 25  |
| RO-FLEX 1000T                               | 24—22                                 | 0.25—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | —        |                                    | 27  |
| RO-FLEX 1000TS                              | 24—22                                 | 0.25—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 29  |
| RO-FLEX 1100T                               | 21—18<br>16—2                         | 0.5—1.0<br>1.5—35  | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464 (～1.0mm <sup>2</sup> )<br>2586 (1.5mm <sup>2</sup> ～) | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | ○ <sup>※</sup>             | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | —        |                                    | 31  |
| RO-FLEX 1100TS                              | 21—18<br>16—2                         | 0.5—1.0<br>1.5—35  | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464 (～1.0mm <sup>2</sup> )<br>2586 (1.5mm <sup>2</sup> ～) | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | ○ <sup>※</sup>             | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 35  |
| RO-FLEX 3000F                               | 24—22                                 | 0.25—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | —        |                                    | 39  |
| RO-FLEX 3000FS                              | 24—22                                 | 0.25—0.34          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 41  |
| RO-FLEX 3300F                               | 21—18<br>16—12                        | 0.5—1.0<br>1.5—4.0 | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464 (～1.0mm <sup>2</sup> )<br>2586 (1.5mm <sup>2</sup> ～) | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | ○ <sup>※</sup>             | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | —        |                                    | 43  |
| RO-FLEX 3300FS                              | 21—18<br>16—12                        | 0.5—1.0<br>1.5—4.0 | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464 (～1.0mm <sup>2</sup> )<br>2586 (1.5mm <sup>2</sup> ～) | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | ○ <sup>※</sup>             | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 45  |
| Millennium-Edition-Series ■ ミレニアムエディションシリーズ |                                       |                    |                                           |    |      |              |     |     |                                |                                 |    |     |                                                            |     |  |   |   |                                |                                |                               |      |           |                                     |                            |                           |                                    |          |                                    |     |
| RO-FLEX-PREMIUM-1100T                       | 21—14                                 | 0.5—2.5            | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2586                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | —        |                                    | 49  |
| RO-FLEX-PREMIUM-1100TS                      | 21—14                                 | 0.5—2.5            | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2586                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○        |                                    | 51  |
| RO-FLEX-3MDT                                | 18+14E                                | 0.75+2.5E          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | ○         | —                                   | ○                          | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | —        | 異サイズ接地線<br>Earth is different size | 53  |
| RO-FLEX-PREMIUM-9000F                       | 26—19                                 | 0.14—0.75          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 20276                                                      | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 可動用<br>Robot cable        | 機器内部<br>Internal                   | —        | ロボットケーブル<br>Robot cable            | 55  |
| RO-FLEX-PREMIUM-9000FS                      | 26—19                                 | 0.14—0.75          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 20276                                                      | —   |  | — | — | —                              | —                              | ○                             | —    | —         | —                                   | —                          | 可動用<br>Robot cable        | 機器内部<br>Internal                   | ○        | ロボットケーブル<br>Robot cable            | 57  |
| RO-FLEX-3MDF                                | 18+14E                                | 0.75+2.5E          | —                                         | ○  | —    | —            | —   | —   | —                              | —                               | —  | —   | 2464                                                       | —   |  | — | — | —                              | —                              | ○                             | —    | ○         | —                                   | ○                          | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | —        | 異サイズ接地線<br>Earth is different size | 59  |

※電気用品安全法は0.75mm以上にのみ適応されています。  
※Denan law is applicable to 0.75mm and more

W.W.S.C.シリーズ製品一覧  
WORLD WIDE STANDARD CABLE-Series Product list.

| 製品名<br>Product name | 公称断面積<br>Nominal cross sectional area |                 | 規格/認定マーク<br>Standard / Certification mark |    |      |              |     |     |      |     |    |     |           |     |  |     |    |     | 使用用途<br>Use |           |                                     | 備考<br>Remark | Page No. |                            |              |
|---------------------|---------------------------------------|-----------------|-------------------------------------------|----|------|--------------|-----|-----|------|-----|----|-----|-----------|-----|--|-----|----|-----|-------------|-----------|-------------------------------------|--------------|----------|----------------------------|--------------|
|                     | AWG                                   | mm <sup>2</sup> | 国際規格                                      | 欧州 | 英国   | アメリカ         |     |     |      |     |    | カナダ |           |     |  |     | 中国 | ロシア | ブラジル        | 日本        | 固定・可動<br>Fixed or constant movement |              |          | 配線箇所<br>Wiring application | ノイズ対策<br>EMC |
|                     |                                       |                 |                                           |    |      | NFPA 70 / 79 |     |     |      |     |    | CEC |           |     |  |     |    |     |             |           |                                     |              |          |                            |              |
|                     |                                       |                 | IEC                                       | CE | UKCA | TC-ER        | STO | MTW | THHW | TFF | CM | CL3 | AWM style | STO |  | CIC | CM | TEW | TW75        | AWM (CSA) |                                     |              |          |                            |              |

| Listing-Series ■ リスティングシリーズ |        |           |             |   |   |   |   |   |   |   |   |   |      |   |  |   |   |   |   |   |   |   |   |    |                           |                                    |   |                                                                  |    |
|-----------------------------|--------|-----------|-------------|---|---|---|---|---|---|---|---|---|------|---|--|---|---|---|---|---|---|---|---|----|---------------------------|------------------------------------|---|------------------------------------------------------------------|----|
| RO-FLEX 725T                | 26—20  | 0.14—0.5  | —           | ○ | — | — | — | — | — | — | ○ | ○ | 2464 | — |  | — | ○ | — | — | ○ | — | — | — | —  | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — | 高難燃性<br>High flame retardant                                     | 63 |
| RO-FLEX 725TS               | 26—20  | 0.14—0.5  | —           | ○ | — | — | — | — | — | — | ○ | ○ | 2464 | — |  | — | ○ | — | — | ○ | — | — | — | —  | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○ | 高難燃性<br>High flame retardant                                     | 65 |
| RO-FLEX-CLT                 | 20+14E | 0.5+2.5E  | —           | ○ | — | — | — | — | — | — | — | ○ | 2464 | — |  | — | — | — | — | ○ | — | ○ | — | —  | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — | 異サイズ接地線/高難燃性<br>Earth is different size/<br>High flame retardant | 67 |
| RO-FLEX-CMT                 | 18+14E | 0.75+2.5E | —           | ○ | — | — | — | — | — | — | ○ | ○ | 2464 | — |  | — | ○ | — | — | ○ | — | ○ | — | ○  | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — | 異サイズ接地線/高難燃性<br>Earth is different size/<br>High flame retardant | 69 |
| RO-FLEX 7700T               | 18—2   | —         | ○<br>(16—2) | ○ | — | ○ | ○ | ○ | — | — | — | — | 2501 | ○ |  | ○ | — | — | — | ○ | — | — | — | ○  | 固定用<br>Fixed installation | 機器外部連絡<br>external                 | — | 高難燃性<br>High flame retardant                                     | 71 |
| RO-FLEX 7700TS              | 18—2   | —         | ○<br>(16—2) | ○ | — | ○ | ○ | ○ | — | — | — | — | 2501 | ○ |  | ○ | — | — | — | ○ | — | — | — | ○  | 固定用<br>Fixed installation | 機器外部連絡<br>external                 | ○ | 高難燃性<br>High flame retardant                                     | 73 |
| RO-FLEX 8000T               | 18—2   | 1.0—35    | ○<br>(16—2) | ○ | — | ○ | — | ○ | — | — | — | — | 2516 | — |  | — | — | — | — | ○ | — | — | — | ○  | 固定用<br>Fixed installation | 機器外部連絡<br>external                 | — | 高難燃性<br>High flame retardant                                     | 75 |
| RO-FLEX 8000TS              | 18—2   | 1.0—35    | ○<br>(16—2) | ○ | — | ○ | — | ○ | — | — | — | — | 2516 | — |  | — | — | — | — | ○ | — | — | — | ○  | 固定用<br>Fixed installation | 機器外部連絡<br>external                 | ○ | 高難燃性<br>High flame retardant                                     | 77 |
| RO-FLEX-TC-MTW-T            | 18+14E | 0.75+2.5E | —           | ○ | — | ○ | — | ○ | — | — | — | — | 2586 | — |  | — | — | — | — | ○ | — | — | — | ○  | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — | 異サイズ接地線<br>Earth is different size                               | 79 |
| RO-FLEX 800F                | 26—20  | 0.14—0.5  | —           | ○ | — | — | — | — | — | — | ○ | — | 2464 | — |  | — | ○ | — | — | ○ | — | — | — | —  | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — | 高難燃性<br>High flame retardant                                     | 81 |
| RO-FLEX 800FS               | 26—20  | 0.14—0.5  | —           | ○ | — | — | — | — | — | — | ○ | — | 2464 | — |  | — | ○ | — | — | ○ | — | — | — | —  | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | ○ | 高難燃性<br>High flame retardant                                     | 83 |
| RO-FLEX-CMF                 | 18+14E | 0.75+2.5E | —           | ○ | — | — | — | — | — | — | ○ | — | 2464 | — |  | — | ○ | — | — | ○ | — | ○ | — | ○  | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — | 異サイズ接地線/高難燃性<br>Earth is different size/<br>High flame retardant | 85 |
| RO-FLEX 3300F-MTW           | 20—12  | 0.5—4.0   | —           | ○ | — | — | — | ○ | — | — | — | — | 2586 | — |  | — | — | ○ | — | — | — | — | — | ○* | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — |                                                                  | 87 |
| RO-FLEX 3300FS-MTW          | 20—12  | 0.5—4.0   | —           | ○ | — | — | — | ○ | — | — | — | — | 2586 | — |  | — | — | ○ | — | — | — | — | — | ○* | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | ○ |                                                                  | 89 |
| RO-FLEX-6MDF-MTW            | 18+14E | 0.75+2.5E | —           | ○ | — | — | — | ○ | — | — | — | — | 2586 | — |  | — | — | — | — | ○ | — | — | — | ○  | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — | 異サイズ接地線<br>Earth is different size                               | 91 |

| C <sup>3</sup> -Series ■ シーキュービックシリーズ |              |                  |   |   |   |   |   |   |   |   |   |   |      |   |  |   |   |   |   |                            |   |   |   |   |                           |                                    |   |  |     |
|---------------------------------------|--------------|------------------|---|---|---|---|---|---|---|---|---|---|------|---|--|---|---|---|---|----------------------------|---|---|---|---|---------------------------|------------------------------------|---|--|-----|
| RO-FLEX 8734T                         | 24—22        | 0.2—0.3          | — | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | — | — | — | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — |  | 95  |
| RO-FLEX 8734TS                        | 24—16        | 0.2—1.5          | — | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | — | — | — | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | ○ |  | 97  |
| RO-FLEX 22775T(DC)/(AC)               | 21—16        | 0.5—1.5          | ○ | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | ○ | ○ | ○ | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — |  | 99  |
| RO-FLEX 22775T                        | 14           | 2.5              | ○ | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | ○ | ○ | ○ | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — |  | 101 |
| RO-FLEX 22710T                        | 12—10<br>8—2 | 4.0—6.0<br>10—35 | ○ | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○<br>(4—6mm <sup>2</sup> ) | ○ | ○ | ○ | ○ | 固定用<br>Fixed installation | 機器内部・外部連絡<br>Internal and external | — |  | 103 |
| RO-FLEX 22775F(DC)/(AC)               | 21—16        | 0.5—1.5          | ○ | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | ○ | ○ | ○ | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — |  | 105 |
| RO-FLEX 22775F                        | 14           | 2.5              | ○ | ○ | — | — | — | — | — | — | — | — | 2570 | — |  | — | — | — | — | ○                          | ○ | ○ | ○ | ○ | 可動用<br>Constant movement  | 機器内部・外部連絡<br>Internal and external | — |  | 107 |

※電気用品安全法は0.75mm<sup>2</sup>以上にのみ適用されています。  
※Denan law is applicable to 0.75mm<sup>2</sup> and more

# World Wide Wire-Series

ワールドワイドワイヤーシリーズ

ワールドワイドワイヤーシリーズ製品一覧

World Wide Wire-Series product list

| 製品名<br>Product name | 公称断面積<br>Nominal cross sectional area |                 | 電圧<br>Voltage (V)   |              | 使用温度<br>Ambient temperature (℃) |              | 特性※<br>Characteristic※ |                        |                 |                           |                           |                 | 環境<br>Environmental issue | Page No. |
|---------------------|---------------------------------------|-----------------|---------------------|--------------|---------------------------------|--------------|------------------------|------------------------|-----------------|---------------------------|---------------------------|-----------------|---------------------------|----------|
|                     | AWG                                   | mm <sup>2</sup> | 北米<br>North America | 欧州<br>Europe | 北米<br>North America             | 欧州<br>Europe | 耐油性<br>Oil resistance  | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐候性<br>Weather resistance | 耐ノイズ性<br>Noise resistance | アウトガス<br>Outgas | RoHS指令<br>RoHS Directive  |          |
| H05V-K+RV           | 21-18                                 | 0.5-1.0         | 300                 | 300/500      | -15~+80                         | -15~+70      | C                      | B                      | C               | B                         | D                         | B               | 適合<br>Compliance          | 13       |
| MTW+H05V-K          | 20-18                                 | 0.5-1.0         | 600                 | 300/500      | -15~+105                        | -15~+90      | B                      | B                      | C               | B                         | D                         | B               | 適合<br>Compliance          | 15       |
| MTW+H07V-K          | 16-450<br>MCM                         | 1.5-240         | 600                 | 450/750      | -15~+105                        | -15~+90      | B                      | B                      | C               | B                         | D                         | B               | 適合<br>Compliance          | 15       |
| MTW-F               | 10-450<br>MCM                         | 6.0-240         | 600                 | 600/1000     | -30~+105                        | -15~+90      | B                      | B                      | C               | B                         | D                         | C               | 適合<br>Compliance          | 17       |

※特性 characteristic  
アウトガス Outgas P112  
耐熱性 Heat resistance P113  
耐油性 Oil resistance P114  
難燃性 Flame retardant P115  
耐屈曲性 Flexing P117  
耐ノイズ性 Noise resistance P119  
耐候性 Weather resistance P120



ブラジル、中国、ロシア、北米、欧州向けに最適  
Especially for Brazil, China, Russia, North America and Europe market.

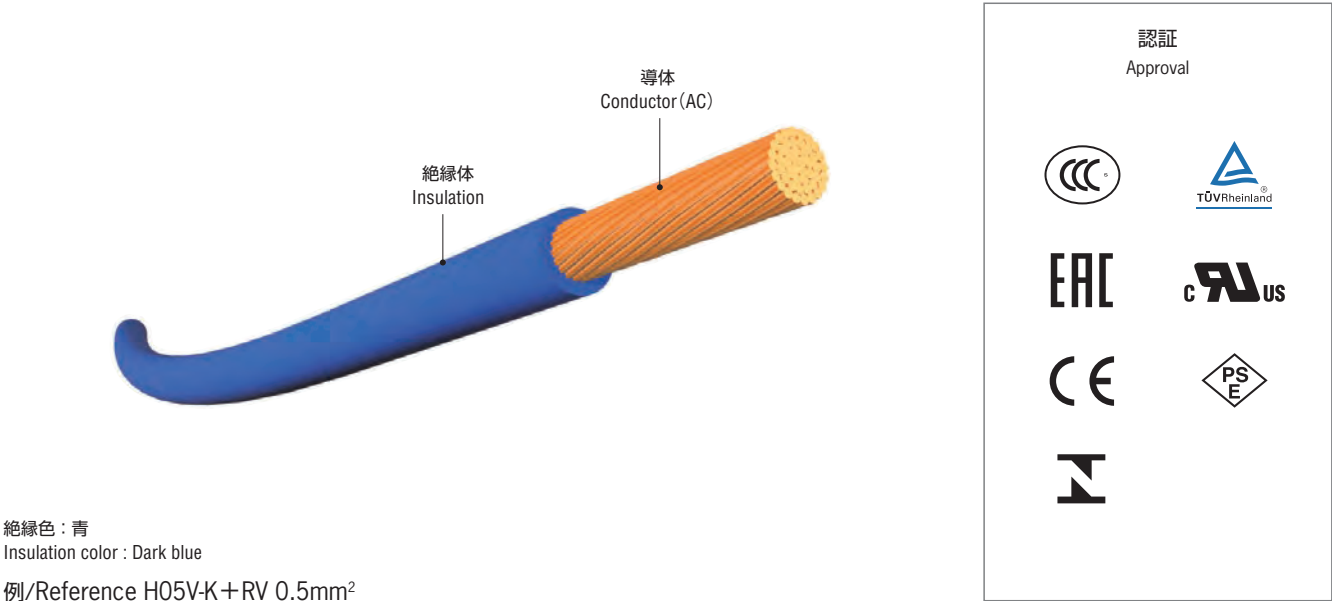
安全規格適合  
(IEC, CEマーキング, UKCA, NBR, CCC, EAC, UL, c-UL(CSA), PSE)  
Conformity to safety standard.  
(IEC, CE-marking, UKCA, NBR, CCC, EAC, UL, c-UL(CSA), PSE)



# H05V-K+RV(60227 IEC 06)

Non-sheathed cables for fixed wiring

WORLD WIDE STANDARD CABLE  
World Wide Wire-Series



絶縁色：青  
Insulation color : Dark blue

例/Reference H05V-K + RV 0.5mm<sup>2</sup>

| ケーブル特性 <sup>※1</sup><br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|-----------------------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                                     | +105℃                  | −15℃                   | C                     | B                      | C               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | B                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 機器内部配線  
2. 信号線  
3. 電源線

1. Internal wiring  
2. Signal line  
3. Power line

## 特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

H05V-K+RV (60227 IEC 06) series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). \*Conformity to RoHS directive 2011/65/EU"

| ケーブル構造 CABLE CONSTRUCTION |                                                             |                                                          |                             |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 芯数<br>No. of cores<br><br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 0006 00050□               | 0.5mm <sup>2</sup> /21AWG                                   | 19/0.18<br><0.9mm>                                       | 1c                          | 2.1                                      | 8                            | 39.0                                    | 10                                                                     |
| 0006 00075□               | 0.75mm <sup>2</sup> /19AWG                                  | 28/0.18<br><1.0mm>                                       | 1c                          | 2.2                                      | 11                           | 26.0                                    | 13                                                                     |
| 0006 00100□               | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br><1.2mm>                                       | 1c                          | 2.4                                      | 13                           | 19.5                                    | 22                                                                     |

□：識別番号参照 Reference to Core-Identification-Number.

●販売条長：153m Standard length：153m (500Ft)

## 識別番号 Core-Identification-Number

| 商品番号<br>Part number | 00                  | 01         | 02                     | 03         | 04          | 05        | 06          | 07       | 08         | 09        | 10                      | 99                     |
|---------------------|---------------------|------------|------------------------|------------|-------------|-----------|-------------|----------|------------|-----------|-------------------------|------------------------|
| 色<br>Color          | 緑/黄<br>Green/Yellow | 黒<br>Black | 青(ダークブルー)<br>Dark blue | 茶<br>Brown | 紫<br>Violet | 桃<br>Pink | 橙<br>Orange | 赤<br>Red | 白<br>White | 灰<br>Grey | 空(ライトブルー)<br>Light blue | 白/青<br>White/Dark Blue |

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

## 温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

## 認証 APPROVALS

| 項目 Item               |                                    | IEC                          | CCC       | EAC                         | CE                         | PSE                  | NBR          | UL       | c-UL                |
|-----------------------|------------------------------------|------------------------------|-----------|-----------------------------|----------------------------|----------------------|--------------|----------|---------------------|
| 認証<br>Approvals       | 認証番号<br>Certificate number         | CN 4033                      | A 025981  | RU C-JPA R46.<br>B.12229/20 | R 9851003                  | JCT                  | TÜV          | E 194236 | E 194236            |
|                       | 適応規格<br>Standard                   | IEC 60227                    | GB/T 5023 | GOST<br>IEC 60227           | EN 50525                   | 電気用品安全法<br>Denan law | NBR/NM 247-3 | UL 758   | CSA C22.2<br>No.210 |
|                       | ケーブルデザイン<br>Cable designations     | 60227 IEC 06                 | RV        | ---                         | H05V-K                     | 〈PS〉E                | 247 NM 02-C5 | 1007     | AWM I<br>Group A/B  |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage      | 300/500V                     |           | 450/750V                    | 300/500V                   |                      | 450/750V     | 300V     |                     |
|                       | 耐電圧<br>Test voltage                | 2500V/5分                     |           |                             |                            |                      |              |          |                     |
|                       | 絶縁抵抗<br>Insulation resistance      | 200MΩ・km (at 20℃)            |           |                             |                            |                      |              |          |                     |
|                       | 使用温度<br>Temperature range          | -15℃~70℃                     |           | 70℃                         | -15℃~70℃                   |                      | 70℃          | 80℃      | 105℃                |
|                       | 曲げ半径<br>Minimum bending for radius | 6D D=ケーブル外径/Overall diameter |           |                             |                            |                      |              |          |                     |
|                       | 難燃性<br>Flame retardant             | EN 50265-2-1 (IEC 60332-1)   |           | Fire Approval               | EN 50265-2-1 (IEC 60332-1) |                      | IEC 60332-3  | VW-1     | FT1                 |
| 構造<br>Construction    | 導体<br>Conductor                    | IEC 60228 Class 5            |           |                             |                            |                      |              | ASTM B 3 |                     |
|                       | 絶縁<br>Insulation                   | 耐熱PVC/Heat resistant PVC     |           |                             |                            |                      |              |          |                     |

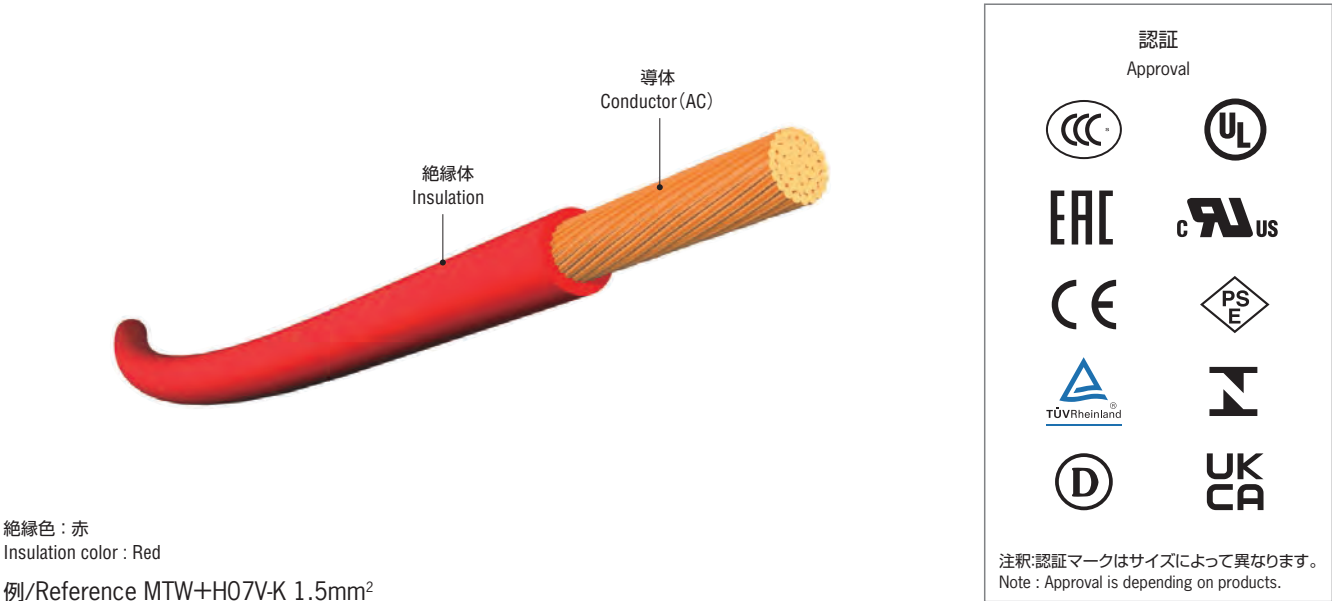
MTW+H05V-K(60227 IEC 06)0.5-1.0mm<sup>2</sup>

MTW+H07V-K(60227 IEC 02)1.5-240mm<sup>2</sup>

Non-sheathed cables for fixed wiring

WORLD WIDE STANDARD CABLE

World Wide Wire-Series



絶縁色：赤  
Insulation color : Red

例/Reference MTW+H07V-K 1.5mm<sup>2</sup>

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | B                     | B                      | C               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | B                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途    Application

1. 機器内部配線  
2. 信号線  
3. 電源線

1. Internal wiring  
2. Signal line  
3. Power line

特 長    Characteristics

NBR, CCC, EAC, IEC, CE, UKCA, NFPA, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

MTW+H07V-K/H05V-K (60227 IEC 02/06) series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UKCA, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

| ケーブル構造    CABLE CONSTRUCTION |                  |                                                             |                                                          |                             |                                          |                              |                                         |                                                                        |
|------------------------------|------------------|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number          | 商品名<br>Part name | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 芯数<br>No. of cores<br><br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 0003 00050□                  | MTW+H05V-K       | 0.5mm <sup>2</sup> /20AWG                                   | 21/0.18<br>〈0.95mm〉                                      | 1c                          | 2.6                                      | 11                           | 34.6                                    | 10                                                                     |
| 0003 00075□                  | MTW+H05V-K       | 0.75mm <sup>2</sup> /18AWG                                  | 33/0.18<br>〈1.1mm〉                                       | 1c                          | 2.7                                      | 14                           | 21.8                                    | 13                                                                     |
| 0003 00100□                  | MTW+H05V-K       | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br>〈1.2mm〉                                       | 1c                          | 2.8                                      | 15                           | 19.5                                    | 22                                                                     |
| 0002 00150□                  | MTW+H07V-K       | 1.5mm <sup>2</sup> /16AWG                                   | 56/0.18<br>〈1.5mm〉                                       | 1c                          | 3.2                                      | 21                           | 13.3                                    | 28                                                                     |
| 0002 00250□                  | MTW+H07V-K       | 2.5mm <sup>2</sup> /14AWG                                   | 93/0.18<br>〈1.9mm〉                                       | 1c                          | 3.6                                      | 31                           | 7.98                                    | 36                                                                     |
| 0002 00400□                  | MTW+H07V-K       | 4.0mm <sup>2</sup> /12AWG                                   | 7/20/0.18<br>〈2.6mm〉                                     | 1c                          | 4.6                                      | 47                           | 4.95                                    | 42                                                                     |
| 0002 00600□                  | MTW+H07V-K       | 6.0mm <sup>2</sup> /10AWG                                   | 7/32/0.18<br>〈3.1mm〉                                     | 1c                          | 5.3                                      | 71                           | 3.30                                    | 60                                                                     |
| 0002 01000□                  | MTW+H07V-K       | 10mm <sup>2</sup> /8AWG                                     | 7/53/0.18<br>〈3.9mm〉                                     | 1c                          | 6.5                                      | 113                          | 1.91                                    | 84                                                                     |
| 0002 01600□                  | MTW+H07V-K       | 16mm <sup>2</sup> /6AWG                                     | 7/40/0.26<br>〈4.9mm〉                                     | 1c                          | 8.1                                      | 177                          | 1.21                                    | 114                                                                    |
| 0002 02500□                  | MTW+H07V-K       | 25mm <sup>2</sup> /4AWG                                     | 19/49/0.18<br>〈6.8mm〉                                    | 1c                          | 10.2                                     | 274                          | 0.78                                    | 150                                                                    |
| 0002 03500□                  | MTW+H07V-K       | 35mm <sup>2</sup> /2AWG                                     | 19/33/0.26<br>〈7.7mm〉                                    | 1c                          | 11.1                                     | 367                          | 0.5335                                  | 204                                                                    |
| 0002 05000□                  | MTW+H07V-K       | 50mm <sup>2</sup> /1AWG                                     | 19/48/0.26<br>〈9.7mm〉                                    | 1c                          | 13.9                                     | 540                          | 0.386                                   | 234                                                                    |
| 0002 07000□                  | MTW+H07V-K       | 70mm <sup>2</sup> /2/0AWG                                   | 19/7/10/0.26<br>〈11.4mm〉                                 | 1c                          | 16.0                                     | 768                          | 0.266                                   | 318                                                                    |
| 0002 09500□                  | MTW+H07V-K       | 95mm <sup>2</sup> /3/0AWG                                   | 19/7/13/0.26<br>〈13.7mm〉                                 | 1c                          | 18.2                                     | 978                          | 0.206                                   | 372                                                                    |
| 0002 12000□                  | MTW+H07V-K       | 120mm <sup>2</sup> /4/0AWG                                  | 19/7/17/0.26<br>〈15.2mm〉                                 | 1c                          | 19.8                                     | 1252                         | 0.161                                   | 432                                                                    |
| 0002 15000□                  | MTW+H07V-K       | 150mm <sup>2</sup> /250MCM                                  | 19/7/21/0.26<br>〈17.5mm〉                                 | 1c                          | 22.5                                     | 1548                         | 0.129                                   | 486                                                                    |
| 0002 18500□                  | MTW+H07V-K       | 185mm <sup>2</sup> /350MCM                                  | 37/7/13/0.26<br>〈19.7mm〉                                 | 1c                          | 24.9                                     | 1856                         | 0.1011                                  | 606                                                                    |
| 0002 24000□                  | MTW+H07V-K       | 240mm <sup>2</sup> /450MCM                                  | 37/7/17/0.26<br>〈22.7mm〉                                 | 1c                          | 28.1                                     | 2398                         | 0.07867                                 | 654                                                                    |

□：識別番号参照    Reference to Core-Identification-Number.

●販売条長：16mm<sup>2</sup>以下/153m    25mm<sup>2</sup>以上/75m    Standard length：0.5～16mm<sup>2</sup>/153m (500Ft)    25～240mm<sup>2</sup>～/75m (250Ft)

■識別番号    Core-Identification-Number

| 商品番号<br>Part number | 00                  | 01         | 02                     | 03         | 04          | 05        | 06          | 07       | 08         | 09        | 10                      | 12 <sup>※</sup> | 13 <sup>※</sup> | 99                     |
|---------------------|---------------------|------------|------------------------|------------|-------------|-----------|-------------|----------|------------|-----------|-------------------------|-----------------|-----------------|------------------------|
| 色<br>Color          | 緑/黄<br>Green/Yellow | 黒<br>Black | 青(ダークブルー)<br>Dark blue | 茶<br>Brown | 紫<br>Violet | 桃<br>Pink | 橙<br>Orange | 赤<br>Red | 白<br>White | 灰<br>Grey | 空(ライトブルー)<br>Light blue | 黄<br>Yellow     | 緑<br>Green      | 白/青<br>White/Dark Blue |

※黄または緑の単線の使用は、国際安全・他の規則により禁止または制限されている場合があります。  
※The use of yellow or green may be forbidden or restricted by national safety or other regulations in some countries.

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

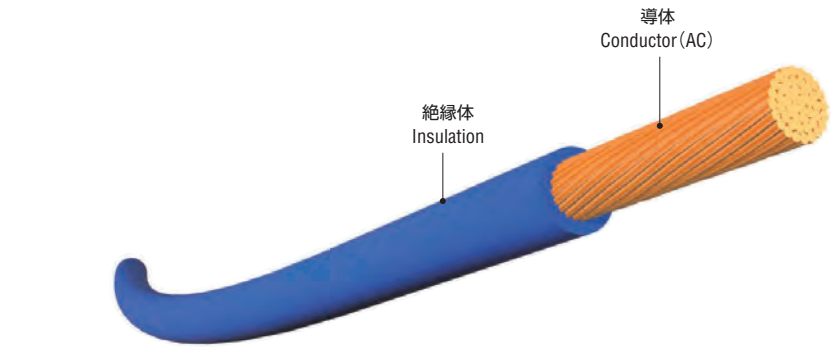
■温度減少係数    Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

MTW-F
Non-sheathed cables for fixed wiring

World Wide Wire-Series

柔軟タイプ/Soft type



絶縁色：青
Insulation color : Dark blue

例/Reference MTW-F 6.0mm²

Approval section containing CE, cULus, D, PSE, and UL marks, along with a note about mark sizes.

Table with 10 columns: Cable Characteristics, Heat resistance, Cold resistance, Oil resistance, Flame retardant, Flexing, Noise resistance, Wiring, RoHS Directive, and Outgas. It lists various performance levels like +105°C, -30°C, B, C, D, and C.

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

- 用 途 Application
1. 機器内部配線
2. 信号線
3. 電源線
1. Internal wiring
2. Signal line
3. Power line

特 長 Characteristics

IEC, CE, NFPA, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

MTW-F series enable to simplify the design and efficient storage for the reduction of costs due to IEC, CE, NFPA, UL, c-UL and PSE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). \*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

Table with 6 columns: Item, CE, (UL), UL, c-UL, PSE. It details various certifications and standards including IEC 60502-1, UL 1063, and ASTM B 3.

ケーブル構造 CABLE CONSTRUCTION

Table with 8 columns: Part number, Nominal cross sectional area, Conductor composition, No. of cores, Approx.Overall diameter, Approx.mass, Conductor resistance, and Current Carrying Capacities. It lists various cable specifications and their corresponding values.

□：識別番号参照 Reference to Core-Identification-Number.

●販売条長：35mm²以下/153m 50mm²以上/75m Standard length：6.0～35mm²/153m (500Ft) 50～240mm²/75m (250Ft)

■識別番号 Core-Identification-Number

6.0～35mm²

Table with 11 columns: Part number, 00, 01, 02, 03, 04, 06, 07, 08, 09, 99. It lists color codes for different cable types.

50～240mm²

Table with 3 columns: Part number, 00, 01. It lists color codes for different cable types.

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.
■温度減少係数 Temperature Correction Factor
Table with 10 columns: Temperature, 21～25, 26～30, 31～35, 36～40, 41～45, 46～50, 51～55, 56～60, 61～70.
●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。
Please refer to our Homepage for the current carrying capacities in North America.

WORLD WIDE STANDARD CABLE

# Recognition-Series

レコグニションシリーズ

WORLD WIDE STANDARD CABLE  
Recognition-Series

レコグニションシリーズ製品一覧  
Recognition-Series product list

| 製品名<br>Product name | 公称断面積<br>Nominal cross sectional area |                             | 電圧<br>Voltage (V)   |              | 使用温度<br>Ambient temperature (°C) |              | 特性※<br>Characteristic※ |                        |                 |                           |                           |                 | 環境<br>Environmental issue | Page No. |
|---------------------|---------------------------------------|-----------------------------|---------------------|--------------|----------------------------------|--------------|------------------------|------------------------|-----------------|---------------------------|---------------------------|-----------------|---------------------------|----------|
|                     | AWG                                   | mm²                         | 北米<br>North America | 欧州<br>Europe | 北米<br>North America              | 欧州<br>Europe | 耐油性<br>Oil resistance  | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐候性<br>Weather resistance | 耐ノイズ性<br>Noise resistance | アウトガス<br>Outgas | RoHS指令<br>RoHS Directive  |          |
| NFKVV-SB(W)         | 25-20                                 | 0.2-0.5                     | 30                  | 350Peak      | -15~+80                          | -15~+70      | C                      | C                      | C               | A                         | A                         | D               | 適合<br>Compliance          | 21       |
| RO-FLEX 2464-1061T  | 26-22                                 | 0.14-0.34                   | 300                 | 350Peak      | -15~+80                          | -15~+70      | C                      | C                      | C               | A                         | C                         | D               | 適合<br>Compliance          | 23       |
| RO-FLEX 2464-1061TS | 26-22                                 | 0.14-0.34                   | 300                 | 350Peak      | -15~+80                          | -15~+70      | C                      | C                      | C               | A                         | A                         | D               | 適合<br>Compliance          | 25       |
| RO-FLEX 1000T       | 24-22                                 | 0.25-0.34                   | 300                 | 100/100      | -15~+80                          | -15~+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 27       |
| RO-FLEX 1000TS      | 24-22                                 | 0.25-0.34                   | 300                 | 100/100      | -15~+80                          | -15~+90      | A                      | B                      | B               | C                         | B                         | C               | 適合<br>Compliance          | 29       |
| RO-FLEX 1100T       | 21-18<br>16-10<br>8-2                 | 0.5-1.0<br>1.5-6.0<br>10-35 | 300<br>600<br>600   | 300/500      | -15~+80<br>-15~+105<br>-15~+105  | -15~+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 31       |
| RO-FLEX 1100TS      | 21-18<br>16-10<br>8-2                 | 0.5-1.0<br>1.5-6.0<br>10-35 | 300<br>600<br>600   | 300/500      | -15~+80<br>-15~+105<br>-15~+105  | -15~+90      | A                      | B                      | B               | C                         | B                         | C               | 適合<br>Compliance          | 35       |
| RO-FLEX 3000F       | 24-22                                 | 0.25-0.34                   | 300                 | 100/100      | 0~+80                            | 0~+90        | A                      | B                      | A               | A                         | C                         | C               | 適合<br>Compliance          | 39       |
| RO-FLEX 3000FS      | 24-22                                 | 0.25-0.34                   | 300                 | 100/100      | 0~+80                            | 0~+90        | A                      | B                      | A               | A                         | A                         | C               | 適合<br>Compliance          | 41       |
| RO-FLEX 3300F       | 21-18<br>16-12                        | 0.5-1.0<br>1.5-4.0          | 300<br>600          | 300/500      | 0~+80<br>0~+105                  | 0~+90        | A                      | B                      | A               | A                         | D                         | C               | 適合<br>Compliance          | 43       |
| RO-FLEX 3300FS      | 21-18<br>16-12                        | 0.5-1.0<br>1.5-4.0          | 300<br>600          | 300/500      | 0~+80<br>0~+105                  | 0~+90        | A                      | B                      | A               | A                         | B                         | C               | 適合<br>Compliance          | 45       |

※特性 characteristic  
アウトガス Outgas P112  
耐熱性 Heat resistance P113  
耐油性 Oil resistance P114  
難燃性 Flame retardant P115  
耐屈曲性 Flexing P117  
耐ノイズ性 Noise resistance P119  
耐候性 Weather resistance P120



世界各国で使用可能  
Useful for all over the world.

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Abundant variety to meet the customer needs.

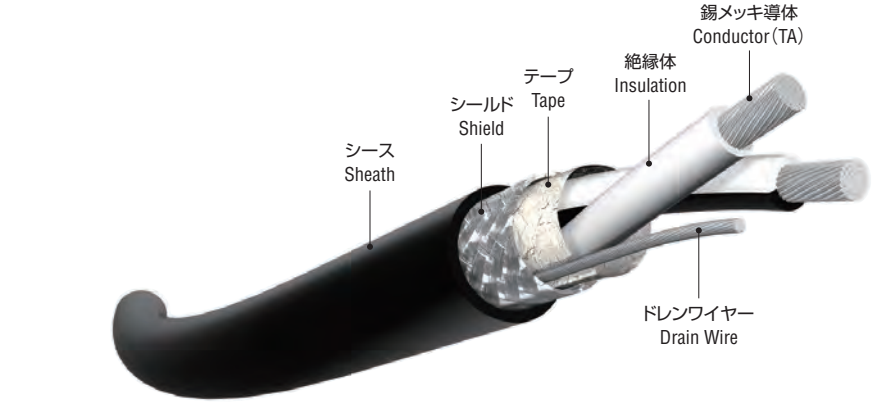
安全規格適合 (CEマーキング, UL, c-UL (CSA), PSE)  
Conformity to safety standard. (CE-marking, UL, c-UL (CSA), PSE)



NFKVV-SB(W)

For fixed installation. Screened wires. Internal wiring for electronic components and outer connection.

EMC対策/To keep the EMC



シース色：黒  
Sheath color：Black

例/Reference NFKVV-SB(W) 0.2mm²×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | −15℃                   | C                     | C                      | C               | A                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | D                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 信号線  
3. 耐ノイズ環境

1. Fixed installation  
2. Signal line  
3. Noise resistance

特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しております。又、『RoHS指令』2011/65/EUに適合しております。

NFKVV-SB(W) series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive")  
\*Conformity to RoHS Directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                          | UL       | c-UL              |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|-------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50011069                                                  | E 194236 | E 194236          |
|                       | 適合規格<br>Standard                        | VDE 0812                                                    | UL 758   | CSA C22.2 No.210  |
|                       | ケーブルデザイン<br>Cable designation           | LIYCY                                                       | 20276    | AWMI/II Group A/B |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 350V Peak                                                   | 30V      | 30V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                   |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                   |
|                       | 使用温度<br>Temperature range               | −15℃〜70℃                                                    | 80℃      | 80℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                   |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                  | VW-1     | FT1               |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                           | ASTM B 3 |                   |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別5」参照<br>Heat resistant PVC/See core identification |          |                   |
|                       | シールド<br>Shield                          | 編組シールド0.12TAC<br>Braid shield 0.12TAC                       |          |                   |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐熱PVC/艶消し黒<br>Heat resistant PVC/Black                      |          |                   |

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 1031 1002001        | 0.2mm²/25AWG                                    | 7/0.18<br>(0.54mm)                                       | 1.05                                    | 1P                      | 4.7                                      | 32                           | 107.7                                   | 4.1                                                                    |
| 1031 1002002        |                                                 |                                                          |                                         | 2P                      | 5.8                                      | 42                           |                                         | 3.1                                                                    |
| 1031 1002003        |                                                 |                                                          |                                         | 3P                      | 6.1                                      | 50                           |                                         | 2.6                                                                    |
| 1031 1002004        |                                                 |                                                          |                                         | 4P                      | 6.7                                      | 59                           |                                         | 2.3                                                                    |
| 1031 1002005        |                                                 |                                                          |                                         | 5P                      | 7.0                                      | 66                           |                                         | 2.1                                                                    |
| 1031 1002006        |                                                 |                                                          |                                         | 6P                      | 7.5                                      | 75                           |                                         | 2.1                                                                    |
| 1031 1002007        |                                                 |                                                          |                                         | 7P                      | 7.5                                      | 78                           |                                         | 1.9                                                                    |
| 1031 1002008        |                                                 |                                                          |                                         | 8P                      | 8.5                                      | 98                           |                                         | 1.8                                                                    |
| 1031 1002010        |                                                 |                                                          |                                         | 10P                     | 9.0                                      | 105                          |                                         | 1.6                                                                    |
| 1031 1002012        |                                                 |                                                          |                                         | 12P                     | 9.5                                      | 121                          |                                         | 1.5                                                                    |
| 1031 1002015        |                                                 |                                                          |                                         | 15P                     | 10.5                                     | 147                          |                                         | 1.4                                                                    |
| 1031 1002018        |                                                 |                                                          |                                         | 18P                     | 12.0                                     | 193                          |                                         | 1.3                                                                    |
| 1031 1002020        |                                                 |                                                          |                                         | 20P                     | 12.5                                     | 202                          |                                         | 1.2                                                                    |
| 1031 1002025        |                                                 |                                                          |                                         | 25P                     | 13.5                                     | 233                          |                                         | 1.1                                                                    |
| 1031 1003001        | 0.3mm²/22AWG                                    | 7/0.26<br>(0.78mm)                                       | 1.3                                     | 1P                      | 5.3                                      | 40                           | 51.6                                    | 5.6                                                                    |
| 1031 1003002        |                                                 |                                                          |                                         | 2P                      | 6.6                                      | 55                           |                                         | 4.2                                                                    |
| 1031 1003003        |                                                 |                                                          |                                         | 3P                      | 7.0                                      | 68                           |                                         | 3.5                                                                    |
| 1031 1003004        |                                                 |                                                          |                                         | 4P                      | 7.6                                      | 81                           |                                         | 3.2                                                                    |
| 1031 1003005        |                                                 |                                                          |                                         | 5P                      | 8.6                                      | 103                          |                                         | 2.9                                                                    |
| 1031 1003006        |                                                 |                                                          |                                         | 6P                      | 9.6                                      | 127                          |                                         | 2.9                                                                    |
| 1031 1003007        |                                                 |                                                          |                                         | 7P                      | 9.6                                      | 133                          |                                         | 2.6                                                                    |
| 1031 1003008        |                                                 |                                                          |                                         | 8P                      | 10.4                                     | 155                          |                                         | 2.4                                                                    |
| 1031 1003010        |                                                 |                                                          |                                         | 10P                     | 11.0                                     | 168                          |                                         | 2.2                                                                    |
| 1031 1003012        |                                                 |                                                          |                                         | 12P                     | 12.0                                     | 204                          |                                         | 2.0                                                                    |
| 1031 1003015        |                                                 |                                                          |                                         | 15P                     | 12.8                                     | 236                          |                                         | 1.9                                                                    |
| 1031 1003018        |                                                 |                                                          |                                         | 18P                     | 14.0                                     | 288                          |                                         | 1.7                                                                    |
| 1031 1003020        |                                                 |                                                          |                                         | 20P                     | 15.3                                     | 330                          |                                         | 1.7                                                                    |
| 1031 1003025        |                                                 |                                                          |                                         | 25P                     | 16.5                                     | 378                          |                                         | 1.5                                                                    |
| 1031 1005001        | 0.5mm²/20AWG                                    | 7/0.32<br>(0.96mm)                                       | 1.6                                     | 1P                      | 6.0                                      | 51                           | 33.1                                    | 7.9                                                                    |
| 1031 1005002        |                                                 |                                                          |                                         | 2P                      | 8.0                                      | 80                           |                                         | 5.9                                                                    |
| 1031 1005003        |                                                 |                                                          |                                         | 3P                      | 9.0                                      | 107                          |                                         | 4.9                                                                    |
| 1031 1005004        |                                                 |                                                          |                                         | 4P                      | 10.0                                     | 134                          |                                         | 4.4                                                                    |
| 1031 1005005        |                                                 |                                                          |                                         | 5P                      | 11.0                                     | 163                          |                                         | 4.1                                                                    |
| 1031 1005006        |                                                 |                                                          |                                         | 6P                      | 12.0                                     | 192                          |                                         | 4.0                                                                    |
| 1031 1005007        |                                                 |                                                          |                                         | 7P                      | 12.0                                     | 201                          |                                         | 3.6                                                                    |
| 1031 1005008        |                                                 |                                                          |                                         | 8P                      | 12.5                                     | 223                          |                                         | 3.4                                                                    |
| 1031 1005010        |                                                 |                                                          |                                         | 10P                     | 13.5                                     | 248                          |                                         | 3.0                                                                    |
| 1031 1005012        |                                                 |                                                          |                                         | 12P                     | 14.0                                     | 282                          |                                         | 2.8                                                                    |
| 1031 1005015        |                                                 |                                                          |                                         | 15P                     | 16.0                                     | 363                          |                                         | 2.6                                                                    |
| 1031 1005020        |                                                 |                                                          |                                         | 20P                     | 17.7                                     | 447                          |                                         | 2.3                                                                    |

●販売条長：100m   Standard length：100m

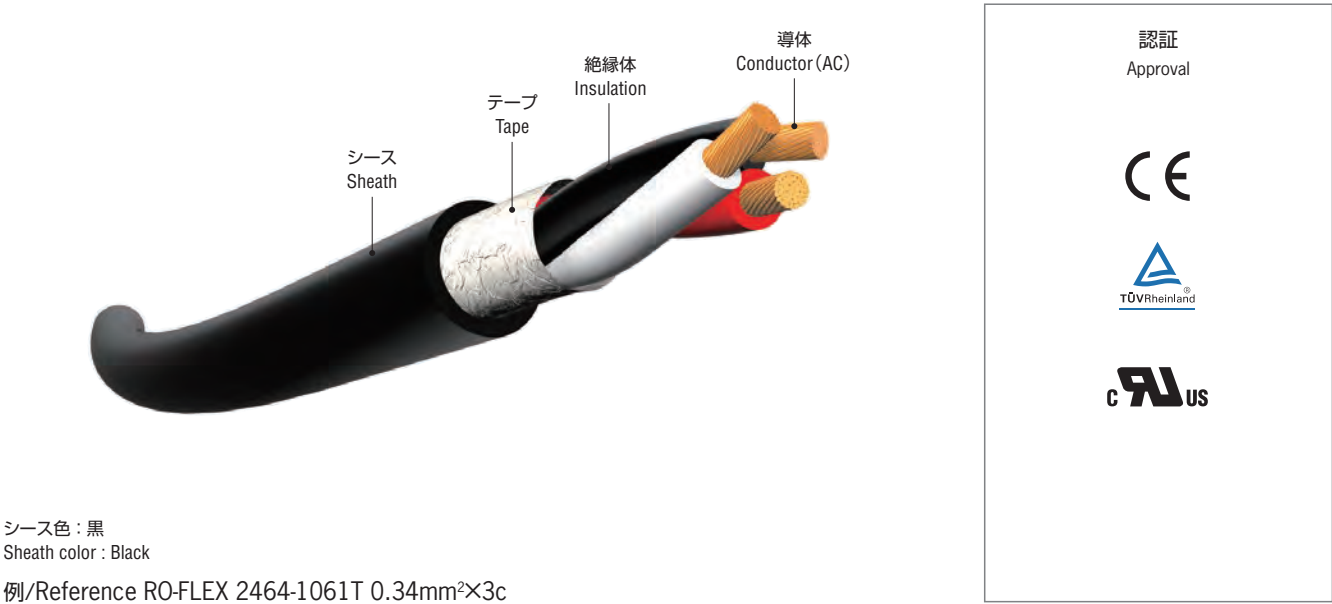
※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数   Temperature Correction Factor

|                              |       |       |       |       |       |       |       |       |      |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 温度(℃)<br>Ambient temperature | 16〜20 | 21〜25 | 26〜30 | 31〜35 | 36〜40 | 41〜45 | 46〜50 | 51〜55 | 56〜  |
| 係数<br>Correction factor      | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50 |

RO-FLEX 2464-1061T

For fixed installation. Internal wiring for electronic components and outer connection.



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 2464-1061T 0.34mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | −15℃                   | C                     | C                      | C               | C                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | D                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部

2. 信号線

3. 通信線

1. Fixed installation

2. Signal line

3. Communication line

特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 2464-1061T series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS Directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                            | UL       | c-UL             |
|-----------------------|-----------------------------------------|---------------------------------------------------------------|----------|------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010985                                                    | E 194236 | E 194236         |
|                       | 適応規格<br>Standard                        | VDE 0812                                                      | UL 758   | CSA C22.2 No.210 |
|                       | ケーブルデザイン<br>Cable designation           | LIYY                                                          | 2464     | AWM I Group A    |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 350V Peak                                                     | 300V     | 300V             |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                      |          |                  |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                             |          |                  |
|                       | 使用温度<br>Temperature range               | −15℃〜70℃                                                      | 80℃      | 80℃              |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                  |          |                  |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                    | VW-1     | FT1              |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                             | ASTM B 3 |                  |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別3、4」参照<br>Heat resistant PVC/See core identification |          |                  |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐熱PVC/黒<br>Heat resistant PVC/Black                           |          |                  |

| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                                     |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores/<br>pairs<br>芯/対 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 1011 0001401              | 0.14mm <sup>2</sup> /26AWG                               | 8/0.15<br>〈0.5mm〉                                       | 1.0                                  | 1P                                  | 3.7                                   | 16                           | 132                                  | 3.6                                                                 |
| 1011 0001402              |                                                          |                                                         |                                      | 2P                                  | 5.1                                   | 26                           |                                      | 2.7                                                                 |
| 1011 0001403              |                                                          |                                                         |                                      | 3P                                  | 5.4                                   | 31                           |                                      | 2.3                                                                 |
| 1011 0001404              |                                                          |                                                         |                                      | 4P                                  | 5.8                                   | 37                           |                                      | 2.0                                                                 |
| 1011 0001405              |                                                          |                                                         |                                      | 5P                                  | 6.3                                   | 44                           |                                      | 1.9                                                                 |
| 1011 0001406              |                                                          |                                                         |                                      | 6P                                  | 6.8                                   | 52                           |                                      | 1.8                                                                 |
| 1011 0001407              |                                                          |                                                         |                                      | 7P                                  | 6.8                                   | 54                           |                                      | 1.6                                                                 |
| 1011 0001408              |                                                          |                                                         |                                      | 8P                                  | 7.2                                   | 62                           |                                      | 1.5                                                                 |
| 1011 0001410              |                                                          |                                                         |                                      | 10P                                 | 8.3                                   | 76                           |                                      | 1.4                                                                 |
| 1011 0001412              |                                                          |                                                         |                                      | 12P                                 | 8.6                                   | 86                           |                                      | 1.3                                                                 |
| 1011 0001416              |                                                          |                                                         |                                      | 16P                                 | 9.6                                   | 112                          |                                      | 1.2                                                                 |
| 1011 0001418              |                                                          |                                                         |                                      | 18P                                 | 10.1                                  | 122                          |                                      | 1.1                                                                 |
| 1011 0001420              |                                                          |                                                         |                                      | 20P                                 | 10.8                                  | 141                          |                                      | 1.1                                                                 |
| 1011 0001425              |                                                          |                                                         |                                      | 25P                                 | 12.1                                  | 172                          |                                      | 1.0                                                                 |
| 1011 0001430              |                                                          |                                                         |                                      | 30P                                 | 12.8                                  | 198                          |                                      | 0.9                                                                 |
| 1011 0002501              | 0.25mm <sup>2</sup> /24AWG                               | 14/0.15<br>〈0.65mm〉                                     | 1.15                                 | 1P                                  | 4.0                                   | 19                           | 75.4                                 | 5.2                                                                 |
| 1011 0002502              |                                                          |                                                         |                                      | 2P                                  | 5.6                                   | 32                           |                                      | 3.9                                                                 |
| 1011 0002503              |                                                          |                                                         |                                      | 3P                                  | 5.9                                   | 40                           |                                      | 3.2                                                                 |
| 1011 0002504              |                                                          |                                                         |                                      | 4P                                  | 6.4                                   | 49                           |                                      | 2.9                                                                 |
| 1011 0002505              |                                                          |                                                         |                                      | 5P                                  | 7.0                                   | 59                           |                                      | 2.7                                                                 |
| 1011 0002506              |                                                          |                                                         |                                      | 6P                                  | 7.8                                   | 73                           |                                      | 2.6                                                                 |
| 1011 0002507              |                                                          |                                                         |                                      | 7P                                  | 7.8                                   | 77                           |                                      | 2.3                                                                 |
| 1011 0002508              |                                                          |                                                         |                                      | 8P                                  | 8.2                                   | 88                           |                                      | 2.2                                                                 |
| 1011 0002510              |                                                          |                                                         |                                      | 10P                                 | 9.5                                   | 108                          |                                      | 2.0                                                                 |
| 1011 0002512              |                                                          |                                                         |                                      | 12P                                 | 9.8                                   | 123                          |                                      | 1.9                                                                 |
| 1011 0002516              |                                                          |                                                         |                                      | 16P                                 | 10.9                                  | 160                          |                                      | 1.7                                                                 |
| 1011 0002518              |                                                          |                                                         |                                      | 18P                                 | 11.5                                  | 175                          |                                      | 1.6                                                                 |
| 1011 0002520              |                                                          |                                                         |                                      | 20P                                 | 12.3                                  | 200                          |                                      | 1.5                                                                 |
| 1011 0002525              |                                                          |                                                         |                                      | 25P                                 | 13.7                                  | 244                          |                                      | 1.4                                                                 |
| 1011 0002530              |                                                          |                                                         |                                      | 30P                                 | 14.7                                  | 290                          |                                      | 1.2                                                                 |
| 1011 0003401              | 0.34mm <sup>2</sup> /22AWG                               | 19/0.15<br>〈0.8mm〉                                      | 1.3                                  | 1P                                  | 4.3                                   | 22                           | 55.4                                 | 6.0                                                                 |
| 1011 0003402              |                                                          |                                                         |                                      | 2P                                  | 6.1                                   | 38                           |                                      | 4.5                                                                 |
| 1011 0003403              |                                                          |                                                         |                                      | 3P                                  | 6.5                                   | 48                           |                                      | 3.8                                                                 |
| 1011 0003404              |                                                          |                                                         |                                      | 4P                                  | 7.0                                   | 60                           |                                      | 3.4                                                                 |
| 1011 0003405              |                                                          |                                                         |                                      | 5P                                  | 7.9                                   | 75                           |                                      | 3.1                                                                 |
| 1011 0003406              |                                                          |                                                         |                                      | 6P                                  | 8.5                                   | 88                           |                                      | 3.0                                                                 |
| 1011 0003407              |                                                          |                                                         |                                      | 7P                                  | 8.5                                   | 94                           |                                      | 2.7                                                                 |
| 1011 0003408              |                                                          |                                                         |                                      | 8P                                  | 9.3                                   | 113                          |                                      | 2.6                                                                 |
| 1011 0003410              |                                                          |                                                         |                                      | 10P                                 | 10.6                                  | 137                          |                                      | 2.3                                                                 |
| 1011 0003412              |                                                          |                                                         |                                      | 12P                                 | 11.0                                  | 156                          |                                      | 2.2                                                                 |
| 1011 0003416              |                                                          |                                                         |                                      | 16P                                 | 12.3                                  | 204                          |                                      | 1.9                                                                 |
| 1011 0003418              |                                                          |                                                         |                                      | 18P                                 | 12.9                                  | 223                          |                                      | 1.8                                                                 |
| 1011 0003420              |                                                          |                                                         |                                      | 20P                                 | 13.8                                  | 255                          |                                      | 1.8                                                                 |
| 1011 0003425              |                                                          |                                                         |                                      | 25P                                 | 15.4                                  | 311                          |                                      | 1.6                                                                 |
| 1011 0003430              |                                                          |                                                         |                                      | 30P                                 | 16.4                                  | 367                          |                                      | 1.4                                                                 |
| 1010 0001402              | 0.14mm <sup>2</sup> /26AWG                               | 8/0.15<br>〈0.5mm〉                                       | 1.0                                  | 2c                                  | 3.7                                   | 16                           | 132                                  | 3.6                                                                 |
| 1010 0001403              |                                                          |                                                         |                                      | 3c                                  | 3.9                                   | 19                           |                                      | 3.1                                                                 |
| 1010 0001404              |                                                          |                                                         |                                      | 4c                                  | 4.1                                   | 22                           |                                      | 2.7                                                                 |
| 1010 0001405              |                                                          |                                                         |                                      | 5c                                  | 4.4                                   | 25                           |                                      | 2.4                                                                 |
| 1010 0001406              |                                                          |                                                         |                                      | 6c                                  | 4.7                                   | 29                           |                                      | 2.3                                                                 |
| 1010 0001407              |                                                          |                                                         |                                      | 7c                                  | 5.1                                   | 33                           |                                      | 2.1                                                                 |
| 1010 0001408              |                                                          |                                                         |                                      | 8c                                  | 5.4                                   | 36                           |                                      | 2.0                                                                 |
| 1010 0001410              |                                                          |                                                         |                                      | 10c                                 | 5.7                                   | 41                           |                                      | 1.9                                                                 |
| 1010 0001412              |                                                          |                                                         |                                      | 12c                                 | 5.9                                   | 46                           |                                      | 1.8                                                                 |
| 1010 0001416              |                                                          |                                                         |                                      | 16c                                 | 6.4                                   | 56                           |                                      | 1.5                                                                 |
| 1010 0001418              |                                                          |                                                         |                                      | 18c                                 | 6.7                                   | 62                           |                                      | 1.4                                                                 |
| 1010 0001420              |                                                          |                                                         |                                      | 20c                                 | 7.0                                   | 68                           |                                      | 1.4                                                                 |
| 1010 0001425              |                                                          |                                                         |                                      | 25c                                 | 7.9                                   | 84                           |                                      | 1.3                                                                 |
| 1010 0001430              |                                                          |                                                         |                                      | 30c                                 | 8.3                                   | 97                           |                                      | 1.2                                                                 |
| 1010 0002502              | 0.25mm <sup>2</sup> /24AWG                               | 14/0.15<br>〈0.65mm〉                                     | 1.15                                 | 2c                                  | 4.0                                   | 19                           | 75.4                                 | 5.2                                                                 |
| 1010 0002503              |                                                          |                                                         |                                      | 3c                                  | 4.2                                   | 24                           |                                      | 4.4                                                                 |
| 1010 0002504              |                                                          |                                                         |                                      | 4c                                  | 4.5                                   | 28                           |                                      | 3.9                                                                 |
| 1010 0002505              |                                                          |                                                         |                                      | 5c                                  | 4.8                                   | 32                           |                                      | 3.5                                                                 |
| 1010 0002506              |                                                          |                                                         |                                      | 6c                                  | 5.2                                   | 38                           |                                      | 3.2                                                                 |
| 1010 0002507              |                                                          |                                                         |                                      | 7c                                  | 5.6                                   | 43                           |                                      | 3.0                                                                 |
| 1010 0002508              |                                                          |                                                         |                                      | 8c                                  | 5.9                                   | 48                           |                                      | 2.9                                                                 |
| 1010 0002510              |                                                          |                                                         |                                      | 10c                                 | 6.3                                   | 54                           |                                      | 2.7                                                                 |
| 1010 0002512              |                                                          |                                                         |                                      | 12c                                 | 6.5                                   | 62                           |                                      | 2.6                                                                 |
| 1010 0002516              |                                                          |                                                         |                                      | 16c                                 | 7.1                                   | 78                           |                                      | 2.2                                                                 |
| 1010 0002518              |                                                          |                                                         |                                      | 18c                                 | 7.7                                   | 90                           |                                      | 2.1                                                                 |
| 1010 0002520              |                                                          |                                                         |                                      | 20c                                 | 8.0                                   | 98                           |                                      | 2.0                                                                 |
| 1010 0002525              |                                                          |                                                         |                                      | 25c                                 | 9.0                                   | 121                          |                                      | 1.9                                                                 |
| 1010 0002530              |                                                          |                                                         |                                      | 30c                                 | 9.5                                   | 140                          |                                      | 1.7                                                                 |
| 1010 0003402              | 0.34mm <sup>2</sup> /22AWG                               | 19/0.15<br>〈0.8mm〉                                      | 1.3                                  | 2c                                  | 4.3                                   | 22                           | 55.4                                 | 6.0                                                                 |
| 1010 0003403              |                                                          |                                                         |                                      | 3c                                  | 4.5                                   | 27                           |                                      | 5.1                                                                 |
| 1010 0003404              |                                                          |                                                         |                                      | 4c                                  | 4.8                                   | 33                           |                                      | 4.5                                                                 |
| 1010 0003405              |                                                          |                                                         |                                      | 5c                                  | 5.2                                   | 39                           |                                      | 4.1                                                                 |
| 1010 0003406              |                                                          |                                                         |                                      | 6c                                  | 5.6                                   | 45                           |                                      | 3.8                                                                 |
| 1010 0003407              |                                                          |                                                         |                                      | 7c                                  | 6.1                                   | 52                           |                                      | 3.5                                                                 |
| 1010 0003408              |                                                          |                                                         |                                      | 8c                                  | 6.5                                   | 59                           |                                      | 3.4                                                                 |
| 1010 0003410              |                                                          |                                                         |                                      | 10c                                 | 6.9                                   | 67                           |                                      | 3.1                                                                 |
| 1010 0003412              |                                                          |                                                         |                                      | 12c                                 | 7.1                                   | 76                           |                                      | 3.0                                                                 |
| 1010 0003416              |                                                          |                                                         |                                      | 16c                                 | 8.0                                   | 100                          |                                      | 2.6                                                                 |
| 1010 0003418              |                                                          |                                                         |                                      | 18c                                 | 8.4                                   | 111                          |                                      | 2.4                                                                 |
| 1010 0003420              |                                                          |                                                         |                                      | 20c                                 | 9.0                                   | 126                          |                                      | 2.3                                                                 |
| 1010 0003425              |                                                          |                                                         |                                      | 25c                                 | 9.9                                   | 151                          |                                      | 2.2                                                                 |
| 1010 0003430              |                                                          |                                                         |                                      | 30c                                 | 10.6                                  | 179                          |                                      | 2.0                                                                 |

●販売条長：153m Standard length：153m (500ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

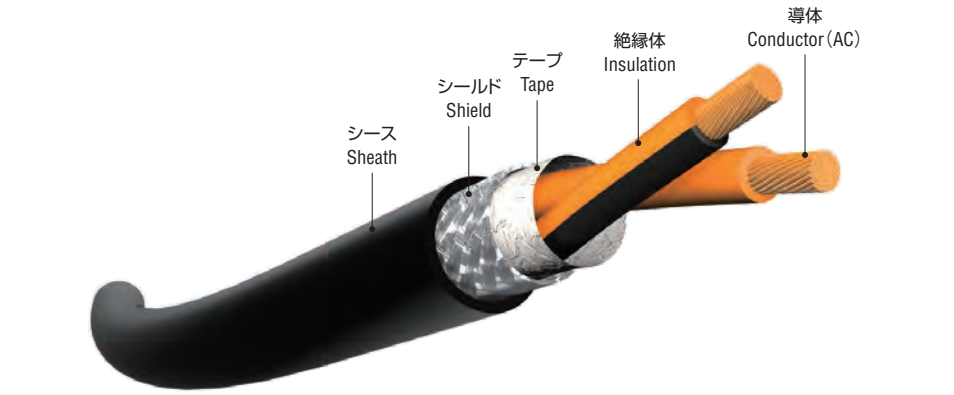
WORLD WIDE STANDARD CABLE

Recognition-Series

RO-FLEX 2464-1061TS

For fixed installation. Screened wires. Internal wiring for electronic components and outer connection.

EMC対策/To keep the EMC



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 2464-1061TS 0.14mm²×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | −15℃                   | C                     | C                      | C               | A                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | D                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 信号線  
3. 通信線  
4. 耐ノイズ環境

1. Fixed installation  
2. Signal line  
3. Communication line  
4. Noise resistance

特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 2464-1061TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS Directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                          | UL       | c-UL             |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50011069                                                  | E 194236 | E 194236         |
|                       | 適応規格<br>Standard                        | VDE 0812                                                    | UL 758   | CSA C22.2 No.210 |
|                       | ケーブルデザイン<br>Cable designation           | LIYCY                                                       | 2464     | AWM I Group A    |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 350V Peak                                                   | 300V     | 300V             |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                  |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                  |
|                       | 使用温度<br>Temperature range               | −15℃〜70℃                                                    | 80℃      | 80℃              |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                  |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                  | VW-1     | FT1              |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class5                                            | ASTM B 3 |                  |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/[識別4]参照<br>Heat resistant PVC/See core identification |          |                  |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                      |          |                  |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐熱PVC/黒<br>Heat resistant PVC/Black                         |          |                  |

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 1011 1001401        | 0.14mm²/26AWG                                   | 8/0.15<br>〈0.5mm〉                                          | 1.0                                     | 1P                      | 4.2                                      | 26                           | 132                                     | 3.6                                                                    |
| 1011 1001402        |                                                 |                                                            |                                         | 2P                      | 5.6                                      | 40                           |                                         | 2.7                                                                    |
| 1011 1001403        |                                                 |                                                            |                                         | 3P                      | 5.9                                      | 47                           |                                         | 2.3                                                                    |
| 1011 1001404        |                                                 |                                                            |                                         | 4P                      | 6.3                                      | 56                           |                                         | 2.0                                                                    |
| 1011 1001405        |                                                 |                                                            |                                         | 5P                      | 6.8                                      | 63                           |                                         | 1.9                                                                    |
| 1011 1001406        |                                                 |                                                            |                                         | 6P                      | 7.5                                      | 76                           |                                         | 1.8                                                                    |
| 1011 1001407        |                                                 |                                                            |                                         | 7P                      | 7.5                                      | 78                           |                                         | 1.6                                                                    |
| 1011 1001408        |                                                 |                                                            |                                         | 8P                      | 7.9                                      | 88                           |                                         | 1.5                                                                    |
| 1011 1001410        |                                                 |                                                            |                                         | 10P                     | 9.0                                      | 107                          |                                         | 1.4                                                                    |
| 1011 1001412        |                                                 |                                                            |                                         | 12P                     | 9.3                                      | 118                          |                                         | 1.3                                                                    |
| 1011 1001416        |                                                 |                                                            |                                         | 16P                     | 10.1                                     | 143                          |                                         | 1.2                                                                    |
| 1011 1001418        |                                                 |                                                            |                                         | 18P                     | 10.8                                     | 159                          |                                         | 1.1                                                                    |
| 1011 1001420        |                                                 |                                                            |                                         | 20P                     | 11.3                                     | 175                          |                                         | 1.1                                                                    |
| 1011 1001425        |                                                 |                                                            |                                         | 25P                     | 12.6                                     | 210                          |                                         | 1.0                                                                    |
| 1011 1001430        |                                                 |                                                            |                                         | 30P                     | 13.5                                     | 244                          |                                         | 0.9                                                                    |
| 1011 1002501        | 0.25mm²/24AWG                                   | 14/0.15<br>〈0.65mm〉                                        | 1.15                                    | 1P                      | 4.5                                      | 32                           | 75.4                                    | 5.2                                                                    |
| 1011 1002502        |                                                 |                                                            |                                         | 2P                      | 6.1                                      | 49                           |                                         | 3.9                                                                    |
| 1011 1002503        |                                                 |                                                            |                                         | 3P                      | 6.4                                      | 58                           |                                         | 3.2                                                                    |
| 1011 1002504        |                                                 |                                                            |                                         | 4P                      | 6.9                                      | 68                           |                                         | 2.9                                                                    |
| 1011 1002505        |                                                 |                                                            |                                         | 5P                      | 7.7                                      | 84                           |                                         | 2.7                                                                    |
| 1011 1002506        |                                                 |                                                            |                                         | 6P                      | 8.3                                      | 96                           |                                         | 2.6                                                                    |
| 1011 1002507        |                                                 |                                                            |                                         | 7P                      | 8.3                                      | 100                          |                                         | 2.3                                                                    |
| 1011 1002508        |                                                 |                                                            |                                         | 8P                      | 8.9                                      | 119                          |                                         | 2.2                                                                    |
| 1011 1002510        |                                                 |                                                            |                                         | 10P                     | 10.0                                     | 139                          |                                         | 2.0                                                                    |
| 1011 1002512        |                                                 |                                                            |                                         | 12P                     | 10.5                                     | 158                          |                                         | 1.9                                                                    |
| 1011 1002516        |                                                 |                                                            |                                         | 16P                     | 11.4                                     | 194                          |                                         | 1.7                                                                    |
| 1011 1002518        |                                                 |                                                            |                                         | 18P                     | 12.2                                     | 217                          |                                         | 1.6                                                                    |
| 1011 1002520        |                                                 |                                                            |                                         | 20P                     | 12.8                                     | 238                          |                                         | 1.5                                                                    |
| 1011 1002525        |                                                 |                                                            |                                         | 25P                     | 14.2                                     | 287                          |                                         | 1.4                                                                    |
| 1011 1002530        |                                                 |                                                            |                                         | 30P                     | 15.2                                     | 336                          |                                         | 1.2                                                                    |
| 1011 1003401        | 0.34mm²/22AWG                                   | 19/0.15<br>〈0.8mm〉                                         | 1.3                                     | 1P                      | 4.8                                      | 35                           | 55.4                                    | 6.0                                                                    |
| 1011 1003402        |                                                 |                                                            |                                         | 2P                      | 6.6                                      | 57                           |                                         | 4.5                                                                    |
| 1011 1003403        |                                                 |                                                            |                                         | 3P                      | 7.0                                      | 67                           |                                         | 3.8                                                                    |
| 1011 1003404        |                                                 |                                                            |                                         | 4P                      | 7.7                                      | 84                           |                                         | 3.4                                                                    |
| 1011 1003405        |                                                 |                                                            |                                         | 5P                      | 8.4                                      | 99                           |                                         | 3.1                                                                    |
| 1011 1003406        |                                                 |                                                            |                                         | 6P                      | 9.2                                      | 120                          |                                         | 3.0                                                                    |
| 1011 1003407        |                                                 |                                                            |                                         | 7P                      | 9.2                                      | 125                          |                                         | 2.7                                                                    |
| 1011 1003408        |                                                 |                                                            |                                         | 8P                      | 9.8                                      | 144                          |                                         | 2.6                                                                    |
| 1011 1003410        |                                                 |                                                            |                                         | 10P                     | 11.1                                     | 170                          |                                         | 2.3                                                                    |
| 1011 1003412        |                                                 |                                                            |                                         | 12P                     | 11.5                                     | 191                          |                                         | 2.2                                                                    |
| 1011 1003416        |                                                 |                                                            |                                         | 16P                     | 12.8                                     | 242                          |                                         | 1.9                                                                    |
| 1011 1003418        |                                                 |                                                            |                                         | 18P                     | 13.6                                     | 270                          |                                         | 1.8                                                                    |
| 1011 1003420        |                                                 |                                                            |                                         | 20P                     | 14.3                                     | 298                          |                                         | 1.8                                                                    |
| 1011 1003425        |                                                 |                                                            |                                         | 25P                     | 15.9                                     | 360                          |                                         | 1.6                                                                    |
| 1011 1003430        |                                                 |                                                            |                                         | 30P                     | 16.9                                     | 420                          |                                         | 1.4                                                                    |

●販売条長：153m    Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

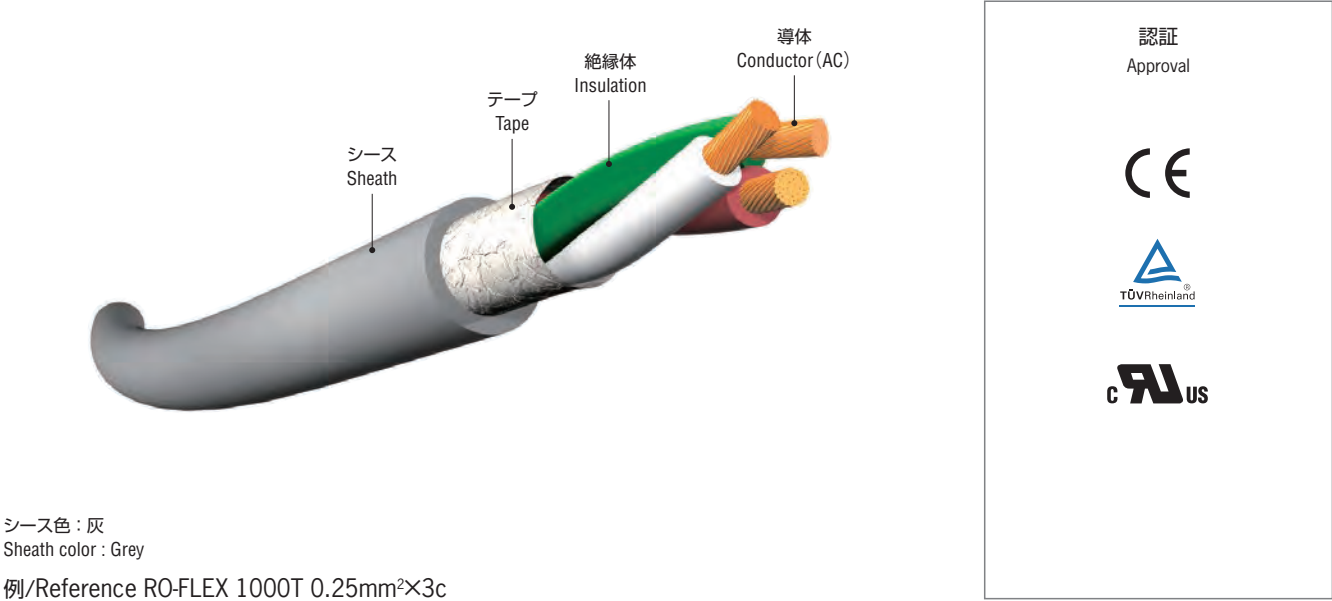
■温度減少係数    Temperature Correction Factor

|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

# RO-FLEX 1000T

For fixed installation. Internal wiring for electronic components and outer connection.

WORLD WIDE STANDARD CABLE  
Recognition-Series



シース色：灰  
Sheath color：Grey

例/Reference RO-FLEX 1000T 0.25mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

| 用 途 Application                                                  | 特 長 Characteristics                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 固定部<br>2. 信号線<br>3. 通信線                                       | CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。                                                                                                               |
| 1. Fixed installation<br>2. Signal line<br>3. Communication line | RO-FLEX 1000T series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.<br>The product is in conformity to Directive 2014/35/EU("Low voltage directive").<br>"Conformity to RoHS directive 2011/65/EU" |

## ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                          | UL       | c-UL               |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010985                                                  | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | VDE 0812                                                    | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | A01V2V5-F                                                   | 2464     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 100/100V                                                    | 300V     | 300V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                    |
|                       | 使用温度<br>Temperature range               | −15℃～90℃                                                    | 80℃      | 105℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                  | VW-1     | FT1                |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                           | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別1」参照<br>Heat resistant PVC/See core identification |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey               |          |                    |

| ケーブル構造 CABLE CONSTRUCTION |                                                             |                                                            |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 1000 0002502              | 0.25mm <sup>2</sup> /24AWG                                  | 14/0.15<br>〈0.65mm〉                                        | 1.45                                    | 2c                      | 4.8                                      | 26                           | 75.4                                    | 4.0                                                                    |
| 1000 0002503              |                                                             |                                                            |                                         | 3c                      | 5.0                                      | 31                           |                                         | 3.5                                                                    |
| 1000 0002504              |                                                             |                                                            |                                         | 4c                      | 5.4                                      | 37                           |                                         | 3.3                                                                    |
| 1000 0002505              |                                                             |                                                            |                                         | 5c                      | 5.8                                      | 44                           |                                         | 3.0                                                                    |
| 1000 0002506              |                                                             |                                                            |                                         | 6c                      | 6.3                                      | 51                           |                                         | 2.8                                                                    |
| 1000 0002507              |                                                             |                                                            |                                         | 7c                      | 6.8                                      | 58                           |                                         | 2.8                                                                    |
| 1000 0002508              |                                                             |                                                            |                                         | 8c                      | 7.2                                      | 64                           |                                         | 2.5                                                                    |
| 1000 0002510              |                                                             |                                                            |                                         | 10c                     | 7.9                                      | 76                           |                                         | 2.5                                                                    |
| 1000 0002512              |                                                             |                                                            |                                         | 12c                     | 8.1                                      | 85                           |                                         | 2.3                                                                    |
| 1000 0002516              |                                                             |                                                            |                                         | 16c                     | 8.9                                      | 106                          |                                         | 2.0                                                                    |
| 1000 0002518              |                                                             |                                                            |                                         | 18c                     | 9.6                                      | 122                          |                                         | 2.0                                                                    |
| 1000 0002520              |                                                             |                                                            |                                         | 20c                     | 10.0                                     | 133                          |                                         | 2.0                                                                    |
| 1000 0002525              |                                                             |                                                            |                                         | 25c                     | 11.2                                     | 163                          |                                         | 1.5                                                                    |
| 1000 0002530              |                                                             |                                                            |                                         | 30c                     | 11.8                                     | 188                          |                                         | 1.5                                                                    |
| 1000 0003402              | 0.34mm <sup>2</sup> /22AWG                                  | 19/0.15<br>〈0.8mm〉                                         | 1.6                                     | 2c                      | 5.1                                      | 30                           | 55.4                                    | 4.8                                                                    |
| 1000 0003403              |                                                             |                                                            |                                         | 3c                      | 5.4                                      | 36                           |                                         | 4.2                                                                    |
| 1000 0003404              |                                                             |                                                            |                                         | 4c                      | 5.8                                      | 44                           |                                         | 3.9                                                                    |
| 1000 0003405              |                                                             |                                                            |                                         | 5c                      | 6.2                                      | 51                           |                                         | 3.6                                                                    |
| 1000 0003406              |                                                             |                                                            |                                         | 6c                      | 6.7                                      | 59                           |                                         | 3.3                                                                    |
| 1000 0003407              |                                                             |                                                            |                                         | 7c                      | 7.3                                      | 68                           |                                         | 3.3                                                                    |
| 1000 0003408              |                                                             |                                                            |                                         | 8c                      | 8.0                                      | 80                           |                                         | 3.0                                                                    |
| 1000 0003410              |                                                             |                                                            |                                         | 10c                     | 8.5                                      | 90                           |                                         | 3.0                                                                    |
| 1000 0003412              |                                                             |                                                            |                                         | 12c                     | 8.8                                      | 102                          |                                         | 2.7                                                                    |
| 1000 0003416              |                                                             |                                                            |                                         | 16c                     | 9.8                                      | 132                          |                                         | 2.4                                                                    |
| 1000 0003418              |                                                             |                                                            |                                         | 18c                     | 10.3                                     | 146                          |                                         | 2.4                                                                    |
| 1000 0003420              |                                                             |                                                            |                                         | 20c                     | 11.0                                     | 165                          |                                         | 2.4                                                                    |
| 1000 0003425              |                                                             |                                                            |                                         | 25c                     | 12.3                                     | 202                          |                                         | 1.8                                                                    |
| 1000 0003430              |                                                             |                                                            |                                         | 30c                     | 13.0                                     | 232                          |                                         | 1.8                                                                    |

●販売条長：153m Standard length：153m (500Ft)

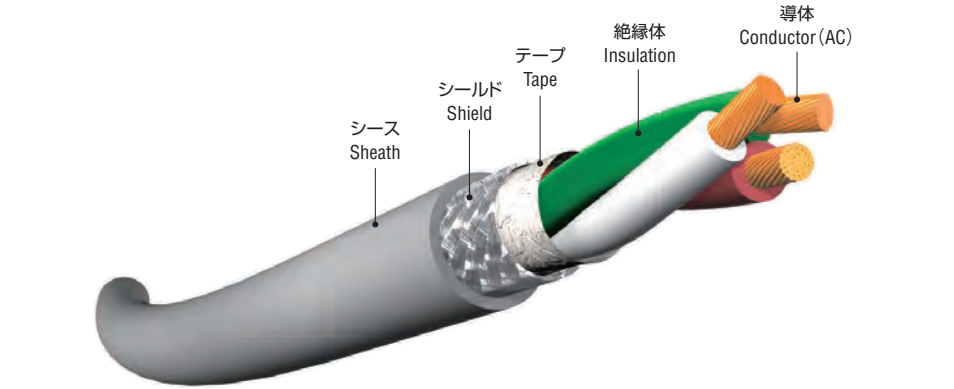
|                                                                                                                                                                     |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。<br>※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air. |      |       |       |       |       |       |       |       |       |       |       |
| ■温度減少係数 Temperature Correction Factor                                                                                                                               |      |       |       |       |       |       |       |       |       |       |       |
| 温度(℃)<br>Ambient temperature                                                                                                                                        | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor                                                                                                                                             | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

# RO-FLEX 1000TS

For fixed installation. Screened wires. Internal wiring for electronic components and outer connection.

WORLD WIDE STANDARD CABLE  
Recognition-Series

## EMC対策/To keep the EMC



シース色：灰  
Sheath color：Grey

例/Reference RO-FLEX 1000TS 0.25mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | B                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 信号線  
3. 通信線  
4. 耐ノイズ環境

1. Fixed installation  
2. Signal line  
3. Communication line  
4. Noise resistance

### 特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 1000TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                          | UL       | c-UL               |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50011069                                                  | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | VDE 0812                                                    | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | A01V2V5-F                                                   | 2464     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 100/100V                                                    | 300V     | 300V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                    |
|                       | 使用温度<br>Temperature range               | −15℃～90℃                                                    | 80℃      | 105℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                  | VW-1     | FT1                |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class5                                            | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別1」参照<br>Heat resistant PVC/See core identification |          |                    |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                      |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey               |          |                    |

## ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores | 仕上外径<br>Approx.Overall<br>diameter | 概算質量<br>Approx.mass | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60384-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------------------|------------------------------------|---------------------|-----------------------------------------|------------------------------------------------------------------------|
|                     |                                                             |                                                          |                                         | 芯                  | mm                                 | kg/km               |                                         |                                                                        |
| 1000 1002502        | 0.25mm <sup>2</sup> /24AWG                                  | 14/0.15<br>(0.65mm)                                      | 1.45                                    | 2c                 | 5.3                                | 39                  | 75.4                                    | 4.0                                                                    |
| 1000 1002503        |                                                             |                                                          |                                         | 3c                 | 5.5                                | 46                  |                                         | 3.5                                                                    |
| 1000 1002504        |                                                             |                                                          |                                         | 4c                 | 5.9                                | 53                  |                                         | 3.3                                                                    |
| 1000 1002505        |                                                             |                                                          |                                         | 5c                 | 6.3                                | 60                  |                                         | 3.0                                                                    |
| 1000 1002506        |                                                             |                                                          |                                         | 6c                 | 6.8                                | 69                  |                                         | 2.8                                                                    |
| 1000 1002507        |                                                             |                                                          |                                         | 7c                 | 7.3                                | 78                  |                                         | 2.8                                                                    |
| 1000 1002508        |                                                             |                                                          |                                         | 8c                 | 7.9                                | 90                  |                                         | 2.5                                                                    |
| 1000 1002510        |                                                             |                                                          |                                         | 10c                | 8.4                                | 100                 |                                         | 2.5                                                                    |
| 1000 1002512        |                                                             |                                                          |                                         | 12c                | 8.6                                | 110                 |                                         | 2.3                                                                    |
| 1000 1002516        |                                                             |                                                          |                                         | 16c                | 9.6                                | 139                 |                                         | 2.0                                                                    |
| 1000 1002518        |                                                             |                                                          |                                         | 18c                | 10.1                               | 153                 |                                         | 2.0                                                                    |
| 1000 1002520        |                                                             |                                                          |                                         | 20c                | 10.7                               | 169                 |                                         | 2.0                                                                    |
| 1000 1002525        |                                                             |                                                          |                                         | 25c                | 11.7                               | 197                 |                                         | 1.5                                                                    |
| 1000 1002530        |                                                             |                                                          |                                         | 30c                | 12.5                               | 230                 |                                         | 1.5                                                                    |
| 1000 1003402        | 0.34mm <sup>2</sup> /22AWG                                  | 19/0.15<br>(0.8mm)                                       | 1.6                                     | 2c                 | 5.6                                | 45                  | 55.4                                    | 4.8                                                                    |
| 1000 1003403        |                                                             |                                                          |                                         | 3c                 | 5.9                                | 51                  |                                         | 4.2                                                                    |
| 1000 1003404        |                                                             |                                                          |                                         | 4c                 | 6.3                                | 60                  |                                         | 3.9                                                                    |
| 1000 1003405        |                                                             |                                                          |                                         | 5c                 | 6.7                                | 69                  |                                         | 3.6                                                                    |
| 1000 1003406        |                                                             |                                                          |                                         | 6c                 | 7.2                                | 79                  |                                         | 3.3                                                                    |
| 1000 1003407        |                                                             |                                                          |                                         | 7c                 | 8.0                                | 93                  |                                         | 3.3                                                                    |
| 1000 1003408        |                                                             |                                                          |                                         | 8c                 | 8.5                                | 104                 |                                         | 3.0                                                                    |
| 1000 1003410        |                                                             |                                                          |                                         | 10c                | 9.2                                | 122                 |                                         | 3.0                                                                    |
| 1000 1003412        |                                                             |                                                          |                                         | 12c                | 9.5                                | 134                 |                                         | 2.7                                                                    |
| 1000 1003416        |                                                             |                                                          |                                         | 16c                | 10.3                               | 163                 |                                         | 2.4                                                                    |
| 1000 1003418        |                                                             |                                                          |                                         | 18c                | 11.0                               | 182                 |                                         | 2.4                                                                    |
| 1000 1003420        |                                                             |                                                          |                                         | 20c                | 11.5                               | 198                 |                                         | 2.4                                                                    |
| 1000 1003425        |                                                             |                                                          |                                         | 25c                | 12.8                               | 239                 |                                         | 1.8                                                                    |
| 1000 1003430        |                                                             |                                                          |                                         | 30c                | 13.7                               | 279                 |                                         | 1.8                                                                    |

●販売条長：153m    Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

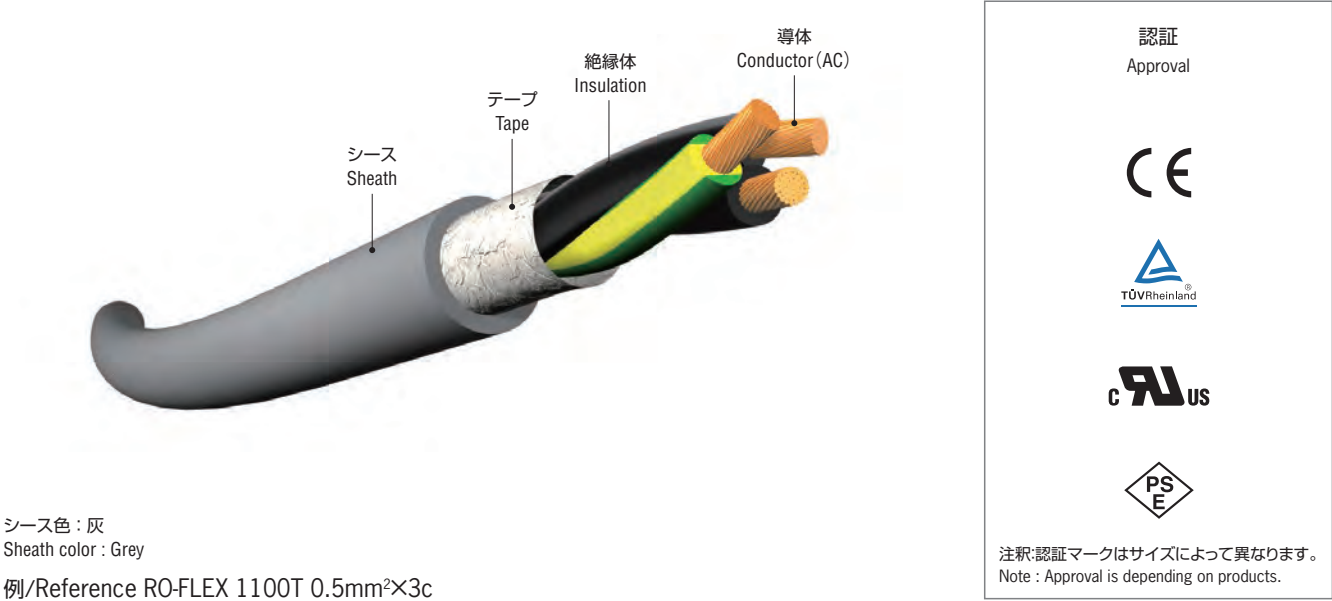
### ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

# RO-FLEX 1100T

For Fixed installation. Oil resistant PVC cable with two or more conductors.

WORLD WIDE STANDARD CABLE  
Recognition-Series



シース色 : 灰  
Sheath color : Grey

例/Reference RO-FLEX 1100T 0.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | -15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

| 用 途 Application                        |
|----------------------------------------|
| 1. 固定部<br>2. 電源線                       |
| 1. Fixed installation<br>2. Power line |

## 特 長 Characteristics

CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 1100T series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS Directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                             | UL                                                        | c-UL                                                      | PSE※                       |
|-----------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | R 50010540<br>J 50010525                                                                                                                       | E 194236                                                  | E 194236                                                  | JD 60154182<br>JD 60154183 |
|                       | 適用規格<br>Standard                        | EN 50525                                                                                                                                       | UL 758                                                    | CSA C22.2 No.210                                          | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                                                                                      | 2464:0.5～1.0mm <sup>2</sup><br>2586:1.5～35mm <sup>2</sup> | AWM I/II Group A/B                                        | 〈PS〉E                      |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V                                                                                                                                       | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～35mm <sup>2</sup> | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～35mm <sup>2</sup> | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                       |                                                           |                                                           |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MΩ・km (at 20℃)                                                                                                                              |                                                           |                                                           |                            |
|                       | 使用温度<br>Temperature range               | －15℃～90℃                                                                                                                                       | 80℃:0.5～1.0mm <sup>2</sup><br>105℃:1.5～35mm <sup>2</sup>  | 105℃                                                      | －15℃～90℃                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D＝ケーブル外径/Overall diameter                                                                                                                   |                                                           |                                                           |                            |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                     | VW-1                                                      | FT1                                                       | EN 50265-2-1 (IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                              | ASTM B 3                                                  |                                                           | IEC 60228 Class 5          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナン/バリンク白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering + Y/G The cable of 2c are excluding Yellow/Green. |                                                           |                                                           |                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey                                                                                                  |                                                           |                                                           |                            |

※電気用品安全法は0.75mm<sup>2</sup>以上にのみ適用されています。  
※Denan law is applicable to 0.75mm<sup>2</sup> and more

| ケーブル構造 CABLE CONSTRUCTION |                                                             |                                                            |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 1100 0005002              | 0.5mm <sup>2</sup> /21AWG                                   | 19/0.18<br>〈0.9mm〉                                         | 2.1                                     | 2c                      | 6.1                                      | 41                           | 39                                      | 6.4                                                                    |
| 1100 0005003              |                                                             |                                                            |                                         | 3c                      | 6.4                                      | 51                           |                                         | 5.6                                                                    |
| 1100 0005004              |                                                             |                                                            |                                         | 4c                      | 7.0                                      | 62                           |                                         | 5.2                                                                    |
| 1100 0005005              |                                                             |                                                            |                                         | 5c                      | 7.8                                      | 78                           |                                         | 4.8                                                                    |
| 1100 0005006              |                                                             |                                                            |                                         | 6c                      | 8.4                                      | 90                           |                                         | 4.4                                                                    |
| 1100 0005007              |                                                             |                                                            |                                         | 7c                      | 9.3                                      | 108                          |                                         | 4.4                                                                    |
| 1100 0005008              |                                                             |                                                            |                                         | 8c                      | 10.0                                     | 122                          |                                         | 4.0                                                                    |
| 1100 0005010              |                                                             |                                                            |                                         | 10c                     | 10.9                                     | 143                          |                                         | 4.0                                                                    |
| 1100 0005012              |                                                             |                                                            |                                         | 12c                     | 11.2                                     | 161                          |                                         | 3.6                                                                    |
| 1100 0005016              |                                                             |                                                            |                                         | 16c                     | 12.6                                     | 209                          |                                         | 3.2                                                                    |
| 1100 0005018              |                                                             |                                                            |                                         | 18c                     | 13.2                                     | 231                          |                                         | 3.2                                                                    |
| 1100 0005020              |                                                             |                                                            |                                         | 20c                     | 14.1                                     | 260                          |                                         | 3.2                                                                    |
| 1100 0005025              |                                                             |                                                            |                                         | 25c                     | 15.7                                     | 317                          |                                         | 2.4                                                                    |
| 1100 0005030              |                                                             |                                                            |                                         | 30c                     | 16.8                                     | 374                          |                                         | 2.4                                                                    |
| 1100 0007502              | 0.75mm <sup>2</sup> /19AWG                                  | 28/0.18<br>〈1.0mm〉                                         | 2.3                                     | 2c                      | 6.5                                      | 49                           | 26                                      | 8.8                                                                    |
| 1100 0007503              |                                                             |                                                            |                                         | 3c                      | 6.9                                      | 61                           |                                         | 7.7                                                                    |
| 1100 0007504              |                                                             |                                                            |                                         | 4c                      | 7.5                                      | 76                           |                                         | 7.2                                                                    |
| 1100 0007505              |                                                             |                                                            |                                         | 5c                      | 8.3                                      | 95                           |                                         | 6.6                                                                    |
| 1100 0007506              |                                                             |                                                            |                                         | 6c                      | 9.2                                      | 115                          |                                         | 6.1                                                                    |
| 1100 0007507              |                                                             |                                                            |                                         | 7c                      | 10.0                                     | 132                          |                                         | 6.1                                                                    |
| 1100 0007508              |                                                             |                                                            |                                         | 8c                      | 10.9                                     | 155                          |                                         | 5.5                                                                    |
| 1100 0007510              |                                                             |                                                            |                                         | 10c                     | 11.7                                     | 176                          |                                         | 5.5                                                                    |
| 1100 0007512              |                                                             |                                                            |                                         | 12c                     | 12.3                                     | 207                          |                                         | 5.0                                                                    |
| 1100 0007516              |                                                             |                                                            |                                         | 16c                     | 13.7                                     | 267                          |                                         | 4.4                                                                    |
| 1100 0007518              |                                                             |                                                            |                                         | 18c                     | 14.4                                     | 296                          |                                         | 4.4                                                                    |
| 1100 0007520              |                                                             |                                                            |                                         | 20c                     | 15.4                                     | 333                          |                                         | 4.4                                                                    |
| 1100 0007525              |                                                             |                                                            |                                         | 25c                     | 17.1                                     | 405                          |                                         | 3.3                                                                    |
| 1100 0007530              |                                                             |                                                            |                                         | 30c                     | 18.2                                     | 477                          |                                         | 3.3                                                                    |
| 1100 0010002              | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br>〈1.2mm〉                                         | 2.5                                     | 2c                      | 6.9                                      | 56                           | 19.5                                    | 18.0                                                                   |
| 1100 0010003              |                                                             |                                                            |                                         | 3c                      | 7.3                                      | 71                           |                                         | 18.0                                                                   |
| 1100 0010004              |                                                             |                                                            |                                         | 4c                      | 8.2                                      | 93                           |                                         | 14.4                                                                   |
| 1100 0010005              |                                                             |                                                            |                                         | 5c                      | 8.9                                      | 111                          |                                         | 14.4                                                                   |
| 1100 0010006              |                                                             |                                                            |                                         | 6c                      | 9.8                                      | 135                          |                                         | 14.4                                                                   |
| 1100 0010007              |                                                             |                                                            |                                         | 7c                      | 10.9                                     | 161                          |                                         | 12.6                                                                   |
| 1100 0010008              |                                                             |                                                            |                                         | 8c                      | 11.7                                     | 182                          |                                         | 12.6                                                                   |
| 1100 0010010              |                                                             |                                                            |                                         | 10c                     | 12.7                                     | 214                          |                                         | 9.0                                                                    |
| 1100 0010012              |                                                             |                                                            |                                         | 12c                     | 13.1                                     | 244                          |                                         | 9.0                                                                    |
| 1100 0010016              |                                                             |                                                            |                                         | 16c                     | 14.7                                     | 318                          |                                         | 9.0                                                                    |
| 1100 0010018              |                                                             |                                                            |                                         | 18c                     | 15.6                                     | 359                          |                                         | 9.0                                                                    |
| 1100 0010020              |                                                             |                                                            |                                         | 20c                     | 16.6                                     | 403                          |                                         | 9.0                                                                    |
| 1100 0010025              |                                                             |                                                            |                                         | 25c                     | 18.5                                     | 490                          |                                         | 9.0                                                                    |
| 1100 0010030              |                                                             |                                                            |                                         | 30c                     | 19.7                                     | 578                          |                                         | 9.0                                                                    |

●販売条長 : 153m Standard length : 153m (500Ft)

# RO-FLEX 1100T

For Fixed installation. Oil resistant PVC cable with two or more conductors.

| ケーブル構造 CABLE CONSTRUCTION |                                              |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm² | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 1100 0015002              | 1.5mm²/16AWG                                 | 56/0.18<br>(1.5mm)                                      | 3.1                                  | 2c                      | 8.3                                   | 80                           | 13.3                                 | 24                                                                  |
| 1100 0015003              |                                              |                                                         |                                      | 3c                      | 8.8                                   | 103                          |                                      | 24                                                                  |
| 1100 0015004              |                                              |                                                         |                                      | 4c                      | 9.8                                   | 134                          |                                      | 19                                                                  |
| 1100 0015005              |                                              |                                                         |                                      | 5c                      | 10.9                                  | 167                          |                                      | 19                                                                  |
| 1100 0015006              |                                              |                                                         |                                      | 6c                      | 11.8                                  | 195                          |                                      | 19                                                                  |
| 1100 0015007              |                                              |                                                         |                                      | 7c                      | 13.1                                  | 233                          |                                      | 17                                                                  |
| 1100 0015008              |                                              |                                                         |                                      | 8c                      | 14.2                                  | 270                          |                                      | 17                                                                  |
| 1100 0015010              |                                              |                                                         |                                      | 10c                     | 15.5                                  | 317                          |                                      | 12                                                                  |
| 1100 0015012              |                                              |                                                         |                                      | 12c                     | 16.0                                  | 362                          |                                      | 12                                                                  |
| 1100 0015016              |                                              |                                                         |                                      | 16c                     | 18.1                                  | 479                          |                                      | 12                                                                  |
| 1100 0015018              |                                              |                                                         |                                      | 18c                     | 19.0                                  | 531                          |                                      | 12                                                                  |
| 1100 0015020              |                                              |                                                         |                                      | 20c                     | 20.2                                  | 595                          |                                      | 12                                                                  |
| 1100 0015025              | 2.5mm²/14AWG                                 | 93/0.18<br>(1.9mm)                                      | 3.6                                  | 25c                     | 22.7                                  | 736                          | 7.98                                 | 12                                                                  |
| 1100 0015030              |                                              |                                                         |                                      | 30c                     | 24.2                                  | 867                          |                                      | 12                                                                  |
| 1100 0025002              |                                              |                                                         |                                      | 2c                      | 9.5                                   | 120                          |                                      | 30                                                                  |
| 1100 0025003              |                                              |                                                         |                                      | 3c                      | 10.1                                  | 153                          |                                      | 30                                                                  |
| 1100 0025004              |                                              |                                                         |                                      | 4c                      | 11.2                                  | 197                          |                                      | 24                                                                  |
| 1100 0025005              |                                              |                                                         |                                      | 5c                      | 12.4                                  | 235                          |                                      | 24                                                                  |
| 1100 0025006              |                                              |                                                         |                                      | 6c                      | 13.7                                  | 284                          |                                      | 24                                                                  |
| 1100 0025007              |                                              |                                                         |                                      | 7c                      | 15.2                                  | 337                          |                                      | 21                                                                  |
| 1100 0025008              |                                              |                                                         |                                      | 8c                      | 16.5                                  | 390                          |                                      | 21                                                                  |
| 1100 0025010              |                                              |                                                         |                                      | 10c                     | 17.9                                  | 458                          |                                      | 15                                                                  |
| 1100 0025012              |                                              |                                                         |                                      | 12C                     | 18.5                                  | 526                          |                                      | 15                                                                  |
| 1100 0025016              |                                              |                                                         |                                      | 16c                     | 20.8                                  | 692                          |                                      | 15                                                                  |
| 1100 0025018              |                                              |                                                         |                                      | 18c                     | 21.9                                  | 770                          |                                      | 15                                                                  |
| 1100 0025020              |                                              |                                                         |                                      | 20c                     | 23.3                                  | 862                          |                                      | 15                                                                  |
| 1100 0025025              |                                              |                                                         |                                      | 25c                     | 26.1                                  | 1061                         |                                      | 15                                                                  |
| 1100 0025030              |                                              |                                                         |                                      | 30c                     | 27.8                                  | 1252                         |                                      | 15                                                                  |

●販売条長：153m   Standard length：153m (500Ft)

| ケーブル構造 CABLE CONSTRUCTION |                                              |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm² | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 1100 0040002              | 4.0mm²/12AWG                                 | 7/20/0.18<br>(2.6mm)                                    | 4.3                                  | 2c                      | 11.1                                  | 165                          | 4.95                                 | 35                                                                  |
| 1100 0040003              |                                              |                                                         |                                      | 3c                      | 11.8                                  | 212                          |                                      | 35                                                                  |
| 1100 0040004              |                                              |                                                         |                                      | 4c                      | 13.1                                  | 271                          |                                      | 28                                                                  |
| 1100 0040005              |                                              |                                                         |                                      | 5c                      | 14.5                                  | 325                          |                                      | 28                                                                  |
| 1100 0060002              | 6.0mm²/10AWG                                 | 7/32/0.18<br>(3.1mm)                                    | 5.5                                  | 2c                      | 13.9                                  | 260                          | 3.3                                  | 50                                                                  |
| 1100 0060003              |                                              |                                                         |                                      | 3c                      | 15.0                                  | 343                          |                                      | 50                                                                  |
| 1100 0060004              |                                              |                                                         |                                      | 4c                      | 16.6                                  | 439                          |                                      | 40                                                                  |
| 1100 0060005              |                                              |                                                         |                                      | 5c                      | 18.4                                  | 524                          |                                      | 40                                                                  |
| 1100 0100002              | 10mm²/8AWG                                   | 7/53/0.18<br>(3.9mm)                                    | 6.8                                  | 2c                      | 16.9                                  | 399                          | 1.91                                 | 70                                                                  |
| 1100 0100003              |                                              |                                                         |                                      | 3c                      | 18.2                                  | 529                          |                                      | 70                                                                  |
| 1100 0100004              |                                              |                                                         |                                      | 4c                      | 20.2                                  | 678                          |                                      | 56                                                                  |
| 1100 0100005              |                                              |                                                         |                                      | 5c                      | 22.5                                  | 819                          |                                      | 56                                                                  |
| 1100 0160002              | 16mm²/6AWG                                   | 7/40/0.26<br>(4.9mm)                                    | 8.6                                  | 2c                      | 21.1                                  | 620                          | 1.21                                 | 95                                                                  |
| 1100 0160003              |                                              |                                                         |                                      | 3c                      | 22.7                                  | 822                          |                                      | 95                                                                  |
| 1100 0160004              |                                              |                                                         |                                      | 4c                      | 25.3                                  | 1065                         |                                      | 76                                                                  |
| 1100 0160005              |                                              |                                                         |                                      | 5c                      | 28.1                                  | 1280                         |                                      | 76                                                                  |
| 1100 0250002              | 25mm²/4AWG                                   | 19/49/0.18<br>(6.8mm)                                   | 10.0                                 | 2c                      | 24.3                                  | 862                          | 0.78                                 | 125                                                                 |
| 1100 0250003              |                                              |                                                         |                                      | 3c                      | 26.1                                  | 1150                         |                                      | 125                                                                 |
| 1100 0250004              |                                              |                                                         |                                      | 4c                      | 29.1                                  | 1491                         |                                      | 100                                                                 |
| 1100 0250005              |                                              |                                                         |                                      | 5c                      | 32.5                                  | 1808                         |                                      | 100                                                                 |
| 1100 0350002              | 35mm²/2AWG                                   | 19/33/0.26<br>(7.7mm)                                   | 11.5                                 | 2c                      | 27.7                                  | 1162                         | 0.5335                               | 170                                                                 |
| 1100 0350003              |                                              |                                                         |                                      | 3c                      | 29.9                                  | 1573                         |                                      | 170                                                                 |
| 1100 0350004              |                                              |                                                         |                                      | 4c                      | 33.3                                  | 2038                         |                                      | 136                                                                 |
| 1100 0350005              |                                              |                                                         |                                      | 5c                      | 37.2                                  | 2470                         |                                      | 136                                                                 |

●販売条長：153m   Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

| 【0.5mm <sup>2</sup> ～0.75mm <sup>2</sup> 】 |      |       |       |       |       |       |       |       |       |       |       |
|--------------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ■温度減少係数   Temperature Correction Factor    |      |       |       |       |       |       |       |       |       |       |       |
| 温度(℃)<br>Ambient temperature               | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor                    | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

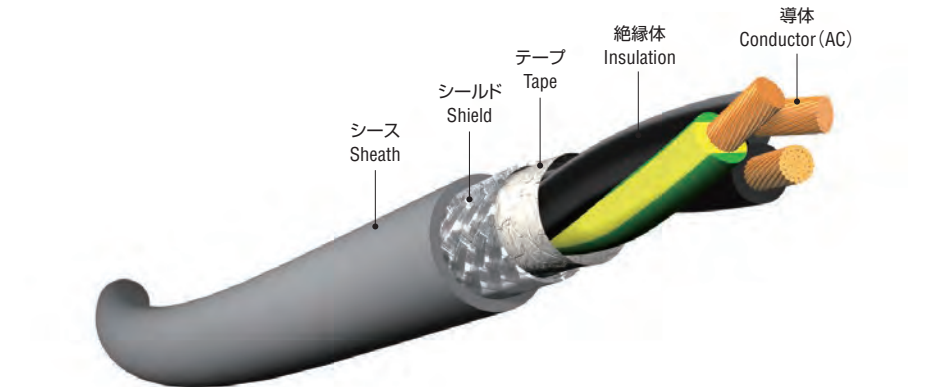
| 【1.0mm <sup>2</sup> ～35mm <sup>2</sup> 】 |       |       |       |       |       |       |       |       |       |
|------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ■温度減少係数   Temperature Correction Factor  |       |       |       |       |       |       |       |       |       |
| 温度(℃)<br>Ambient temperature             | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数<br>Correction factor                  | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

# RO-FLEX 1100TS

For fixed installation. Screened wires. Oil resistant PVC cable with two or more conductors.

WORLD WIDE STANDARD CABLE  
Recognition-Series

## EMC対策/To keep the EMC



シース色：灰  
Sheath color：Grey

例/Reference RO-FLEX 1100TS 0.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | B                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

### 用 途 Application

1. 固定部
2. 電源線
3. 耐ノイズ環境

1. Fixed installation
2. Power line
3. Noise resistance

### 特 長 Characteristics

CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。  
又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。  
このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 1100TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                         | UL                                                        | c-UL                                                      | PSE <sup>※</sup>           |
|-----------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010534<br>J 50010549                                                                                                                   | E 194236                                                  | E 194236                                                  | JD 60154182<br>JD 60154183 |
|                       | 適応規格<br>Standard                        | EN 50525                                                                                                                                   | UL 758                                                    | CSA C22.2 No.210                                          | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                                                                                  | 2464:0.5~1.0mm <sup>2</sup><br>2586:1.5~35mm <sup>2</sup> | AWM I/II Group A/B                                        | 〈PS〉E                      |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V                                                                                                                                   | 300V:0.5~1.0mm <sup>2</sup><br>600V:1.5~35mm <sup>2</sup> | 300V:0.5~1.0mm <sup>2</sup><br>600V:1.5~35mm <sup>2</sup> | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                   |                                                           |                                                           |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MΩ・km (at20℃)                                                                                                                           |                                                           |                                                           |                            |
|                       | 使用温度<br>Temperature range               | -15℃~90℃                                                                                                                                   | 80℃:0.5~1.0mm <sup>2</sup><br>105℃:1.5~35mm <sup>2</sup>  | 105℃                                                      | -15℃~90℃                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                               |                                                           |                                                           |                            |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                 | VW-1                                                      | FT1                                                       | EN 50265-2-1 (IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                          | ASTM B 3                                                  |                                                           | IEC 60228 Class 5          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナシ/白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering + Y/G The cable of 2c are excluding Yellow/Green. |                                                           |                                                           |                            |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                                                                                     |                                                           |                                                           |                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey                                                                                              |                                                           |                                                           |                            |

※電気用品安全法は0.75mm<sup>2</sup>以上にのみ適用されています。  
※Denan law is applicable to 0.75mm<sup>2</sup> and more

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 1100 1005002        | 0.5mm <sup>2</sup> /21AWG                                   | 19/0.18<br>〈0.9mm〉                                         | 2.1                                     | 2c                      | 6.6                                      | 60                           | 39                                      | 6.4                                                                    |
| 1100 1005003        |                                                             |                                                            |                                         | 3c                      | 6.9                                      | 69                           |                                         | 5.6                                                                    |
| 1100 1005004        |                                                             |                                                            |                                         | 4c                      | 7.5                                      | 83                           |                                         | 5.2                                                                    |
| 1100 1005005        |                                                             |                                                            |                                         | 5c                      | 8.3                                      | 101                          |                                         | 4.8                                                                    |
| 1100 1005006        |                                                             |                                                            |                                         | 6c                      | 8.9                                      | 117                          |                                         | 4.4                                                                    |
| 1100 1005007        |                                                             |                                                            |                                         | 7c                      | 9.8                                      | 136                          |                                         | 4.4                                                                    |
| 1100 1005008        |                                                             |                                                            |                                         | 8c                      | 10.7                                     | 158                          |                                         | 4.0                                                                    |
| 1100 1005010        |                                                             |                                                            |                                         | 10c                     | 11.4                                     | 176                          |                                         | 4.0                                                                    |
| 1100 1005012        |                                                             |                                                            |                                         | 12c                     | 11.7                                     | 195                          |                                         | 3.6                                                                    |
| 1100 1005016        |                                                             |                                                            |                                         | 16c                     | 13.1                                     | 247                          |                                         | 3.2                                                                    |
| 1100 1005018        |                                                             |                                                            |                                         | 18c                     | 13.9                                     | 278                          |                                         | 3.2                                                                    |
| 1100 1005020        |                                                             |                                                            |                                         | 20c                     | 14.6                                     | 303                          |                                         | 3.2                                                                    |
| 1100 1005025        |                                                             |                                                            |                                         | 25c                     | 16.2                                     | 366                          |                                         | 2.4                                                                    |
| 1100 1005030        |                                                             |                                                            |                                         | 30c                     | 17.3                                     | 426                          |                                         | 2.4                                                                    |
| 1100 1007502        | 0.75mm <sup>2</sup> /19AWG                                  | 28/0.18<br>〈1.0mm〉                                         | 2.3                                     | 2c                      | 7.0                                      | 68                           | 26                                      | 8.8                                                                    |
| 1100 1007503        |                                                             |                                                            |                                         | 3c                      | 7.4                                      | 82                           |                                         | 7.7                                                                    |
| 1100 1007504        |                                                             |                                                            |                                         | 4c                      | 8.2                                      | 102                          |                                         | 7.2                                                                    |
| 1100 1007505        |                                                             |                                                            |                                         | 5c                      | 8.8                                      | 120                          |                                         | 6.6                                                                    |
| 1100 1007506        |                                                             |                                                            |                                         | 6c                      | 9.7                                      | 143                          |                                         | 6.1                                                                    |
| 1100 1007507        |                                                             |                                                            |                                         | 7c                      | 10.7                                     | 169                          |                                         | 6.1                                                                    |
| 1100 1007508        |                                                             |                                                            |                                         | 8c                      | 11.4                                     | 188                          |                                         | 5.5                                                                    |
| 1100 1007510        |                                                             |                                                            |                                         | 10c                     | 12.4                                     | 219                          |                                         | 5.5                                                                    |
| 1100 1007512        |                                                             |                                                            |                                         | 12c                     | 12.8                                     | 244                          |                                         | 5.0                                                                    |
| 1100 1007516        |                                                             |                                                            |                                         | 16c                     | 14.2                                     | 309                          |                                         | 4.4                                                                    |
| 1100 1007518        |                                                             |                                                            |                                         | 18c                     | 15.1                                     | 348                          |                                         | 4.4                                                                    |
| 1100 1007520        |                                                             |                                                            |                                         | 20c                     | 15.9                                     | 380                          |                                         | 4.4                                                                    |
| 1100 1007525        |                                                             |                                                            |                                         | 25c                     | 17.6                                     | 458                          |                                         | 3.3                                                                    |
| 1100 1007530        |                                                             |                                                            |                                         | 30c                     | 18.7                                     | 534                          |                                         | 3.3                                                                    |
| 1100 1010002        | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br>〈1.2mm〉                                         | 2.5                                     | 2c                      | 7.4                                      | 77                           | 19.5                                    | 18.0                                                                   |
| 1100 1010003        |                                                             |                                                            |                                         | 3c                      | 8.0                                      | 97                           |                                         | 18.0                                                                   |
| 1100 1010004        |                                                             |                                                            |                                         | 4c                      | 8.7                                      | 117                          |                                         | 14.4                                                                   |
| 1100 1010005        |                                                             |                                                            |                                         | 5c                      | 9.6                                      | 144                          |                                         | 14.4                                                                   |
| 1100 1010006        |                                                             |                                                            |                                         | 6c                      | 10.3                                     | 166                          |                                         | 14.4                                                                   |
| 1100 1010007        |                                                             |                                                            |                                         | 7c                      | 11.4                                     | 194                          |                                         | 12.6                                                                   |
| 1100 1010008        |                                                             |                                                            |                                         | 8c                      | 12.4                                     | 225                          |                                         | 12.6                                                                   |
| 1100 1010010        |                                                             |                                                            |                                         | 10c                     | 13.2                                     | 253                          |                                         | 9.0                                                                    |
| 1100 1010012        |                                                             |                                                            |                                         | 12c                     | 13.8                                     | 291                          |                                         | 9.0                                                                    |
| 1100 1010016        |                                                             |                                                            |                                         | 16c                     | 15.4                                     | 370                          |                                         | 9.0                                                                    |
| 1100 1010018        |                                                             |                                                            |                                         | 18c                     | 16.1                                     | 408                          |                                         | 9.0                                                                    |
| 1100 1010020        |                                                             |                                                            |                                         | 20c                     | 17.1                                     | 455                          |                                         | 9.0                                                                    |
| 1100 1010025        |                                                             |                                                            |                                         | 25c                     | 19.0                                     | 548                          |                                         | 9.0                                                                    |
| 1100 1010030        |                                                             |                                                            |                                         | 30c                     | 20.2                                     | 640                          |                                         | 9.0                                                                    |

●販売条長：153m Standard length：153m (500Ft)

# RO-FLEX 1100TS

For fixed installation. Screened wires.  
Oil resistant PVC cable with two or more conductors.

| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 1100 1015002              | 1.5mm <sup>2</sup> /16AWG                                | 56/0.18<br>(1.5mm)                                      | 3.1                                  | 2c                      | 8.8                                   | 105                          | 13.3                                 | 24                                                                  |
| 1100 1015003              |                                                          |                                                         |                                      | 3c                      | 9.5                                   | 135                          |                                      | 24                                                                  |
| 1100 1015004              |                                                          |                                                         |                                      | 4c                      | 10.3                                  | 165                          |                                      | 19                                                                  |
| 1100 1015005              |                                                          |                                                         |                                      | 5c                      | 11.4                                  | 200                          |                                      | 19                                                                  |
| 1100 1015006              |                                                          |                                                         |                                      | 6c                      | 12.5                                  | 238                          |                                      | 19                                                                  |
| 1100 1015007              |                                                          |                                                         |                                      | 7c                      | 13.8                                  | 280                          |                                      | 17                                                                  |
| 1100 1015008              |                                                          |                                                         |                                      | 8c                      | 14.7                                  | 314                          |                                      | 17                                                                  |
| 1100 1015010              |                                                          |                                                         |                                      | 10c                     | 16.0                                  | 365                          |                                      | 12                                                                  |
| 1100 1015012              |                                                          |                                                         |                                      | 12c                     | 16.7                                  | 420                          |                                      | 12                                                                  |
| 1100 1015016              |                                                          |                                                         |                                      | 16c                     | 18.6                                  | 536                          |                                      | 12                                                                  |
| 1100 1015018              |                                                          |                                                         |                                      | 18c                     | 19.7                                  | 601                          |                                      | 12                                                                  |
| 1100 1015020              |                                                          |                                                         |                                      | 20c                     | 20.9                                  | 668                          |                                      | 12                                                                  |
| 1100 1015025              |                                                          |                                                         |                                      | 25c                     | 23.2                                  | 807                          |                                      | 12                                                                  |
| 1100 1015030              |                                                          |                                                         |                                      | 30c                     | 24.7                                  | 944                          |                                      | 12                                                                  |
| 1100 1025002              | 2.5mm <sup>2</sup> /14AWG                                | 93/0.18<br>(1.9mm)                                      | 3.6                                  | 2c                      | 10.0                                  | 515                          | 7.98                                 | 30                                                                  |
| 1100 1025003              |                                                          |                                                         |                                      | 3c                      | 10.8                                  | 190                          |                                      | 30                                                                  |
| 1100 1025004              |                                                          |                                                         |                                      | 4c                      | 11.7                                  | 231                          |                                      | 24                                                                  |
| 1100 1025005              |                                                          |                                                         |                                      | 5c                      | 12.9                                  | 273                          |                                      | 24                                                                  |
| 1100 1025006              |                                                          |                                                         |                                      | 6c                      | 14.2                                  | 326                          |                                      | 24                                                                  |
| 1100 1025007              |                                                          |                                                         |                                      | 7c                      | 15.7                                  | 384                          |                                      | 21                                                                  |
| 1100 1025008              |                                                          |                                                         |                                      | 8c                      | 17.0                                  | 442                          |                                      | 21                                                                  |
| 1100 1025010              |                                                          |                                                         |                                      | 10c                     | 18.4                                  | 514                          |                                      | 15                                                                  |
| 1100 1025012              |                                                          |                                                         |                                      | 12c                     | 19.0                                  | 583                          |                                      | 15                                                                  |
| 1100 1025016              |                                                          |                                                         |                                      | 16c                     | 21.3                                  | 759                          |                                      | 15                                                                  |
| 1100 1025018              |                                                          |                                                         |                                      | 18c                     | 22.6                                  | 850                          |                                      | 15                                                                  |
| 1100 1025020              |                                                          |                                                         |                                      | 20c                     | 24.0                                  | 946                          |                                      | 15                                                                  |
| 1100 1025025              |                                                          |                                                         |                                      | 25c                     | 26.8                                  | 1156                         |                                      | 15                                                                  |
| 1100 1025030              |                                                          |                                                         |                                      | 30c                     | 28.5                                  | 1352                         |                                      | 15                                                                  |

●販売条長：153m Standard length：153m (500Ft)

| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 1100 1040002              | 4.0mm <sup>2</sup> /12AWG                                | 7/20/0.18<br>(2.6mm)                                    | 4.3                                  | 2c                      | 11.6                                  | 199                          | 4.95                                 | 35                                                                  |
| 1100 1040003              |                                                          |                                                         |                                      | 3c                      | 12.5                                  | 254                          |                                      | 35                                                                  |
| 1100 1040004              |                                                          |                                                         |                                      | 4c                      | 13.8                                  | 318                          |                                      | 28                                                                  |
| 1100 1040005              |                                                          |                                                         |                                      | 5c                      | 15.2                                  | 377                          |                                      | 28                                                                  |
| 1100 1060002              | 6.0mm <sup>2</sup> /10AWG                                | 7/32/0.18<br>(3.1mm)                                    | 5.5                                  | 2c                      | 14.4                                  | 303                          | 3.3                                  | 50                                                                  |
| 1100 1060003              |                                                          |                                                         |                                      | 3c                      | 15.5                                  | 390                          |                                      | 50                                                                  |
| 1100 1060004              |                                                          |                                                         |                                      | 4c                      | 17.1                                  | 491                          |                                      | 40                                                                  |
| 1100 1060005              |                                                          |                                                         |                                      | 5c                      | 18.9                                  | 581                          |                                      | 40                                                                  |
| 1100 1100002              | 10mm <sup>2</sup> /8AWG                                  | 7/53/0.18<br>(3.9mm)                                    | 6.8                                  | 2c                      | 17.4                                  | 452                          | 1.91                                 | 70                                                                  |
| 1100 1100003              |                                                          |                                                         |                                      | 3c                      | 18.7                                  | 586                          |                                      | 70                                                                  |
| 1100 1100004              |                                                          |                                                         |                                      | 4c                      | 20.9                                  | 752                          |                                      | 56                                                                  |
| 1100 1100005              |                                                          |                                                         |                                      | 5c                      | 23.0                                  | 890                          |                                      | 56                                                                  |
| 1100 1160002              | 16mm <sup>2</sup> /6AWG                                  | 7/40/0.26<br>(4.9mm)                                    | 8.6                                  | 2c                      | 21.6                                  | 687                          | 1.21                                 | 95                                                                  |
| 1100 1160003              |                                                          |                                                         |                                      | 3c                      | 23.2                                  | 894                          |                                      | 95                                                                  |
| 1100 1160004              |                                                          |                                                         |                                      | 4c                      | 25.8                                  | 1145                         |                                      | 76                                                                  |
| 1100 1160005              |                                                          |                                                         |                                      | 5c                      | 28.6                                  | 1368                         |                                      | 76                                                                  |
| 1100 1250002              | 25mm <sup>2</sup> /4AWG                                  | 19/49/0.18<br>(6.8mm)                                   | 10.0                                 | 2c                      | 24.8                                  | 939                          | 0.78                                 | 125                                                                 |
| 1100 1250003              |                                                          |                                                         |                                      | 3c                      | 26.8                                  | 1245                         |                                      | 125                                                                 |
| 1100 1250004              |                                                          |                                                         |                                      | 4c                      | 29.8                                  | 1595                         |                                      | 100                                                                 |
| 1100 1250005              |                                                          |                                                         |                                      | 5c                      | 33.0                                  | 1914                         |                                      | 100                                                                 |
| 1100 1350002              | 35mm <sup>2</sup> /2AWG                                  | 19/33/0.26<br>(7.7mm)                                   | 11.5                                 | 2c                      | 28.4                                  | 1262                         | 0.5335                               | 170                                                                 |
| 1100 1350003              |                                                          |                                                         |                                      | 3c                      | 30.4                                  | 1666                         |                                      | 170                                                                 |
| 1100 1350004              |                                                          |                                                         |                                      | 4c                      | 34.0                                  | 2163                         |                                      | 136                                                                 |
| 1100 1350005              |                                                          |                                                         |                                      | 5c                      | 37.7                                  | 2589                         |                                      | 136                                                                 |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>～0.75mm<sup>2</sup>】

■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

【1.0mm<sup>2</sup>～35mm<sup>2</sup>】

■温度減少係数 Temperature Correction Factor

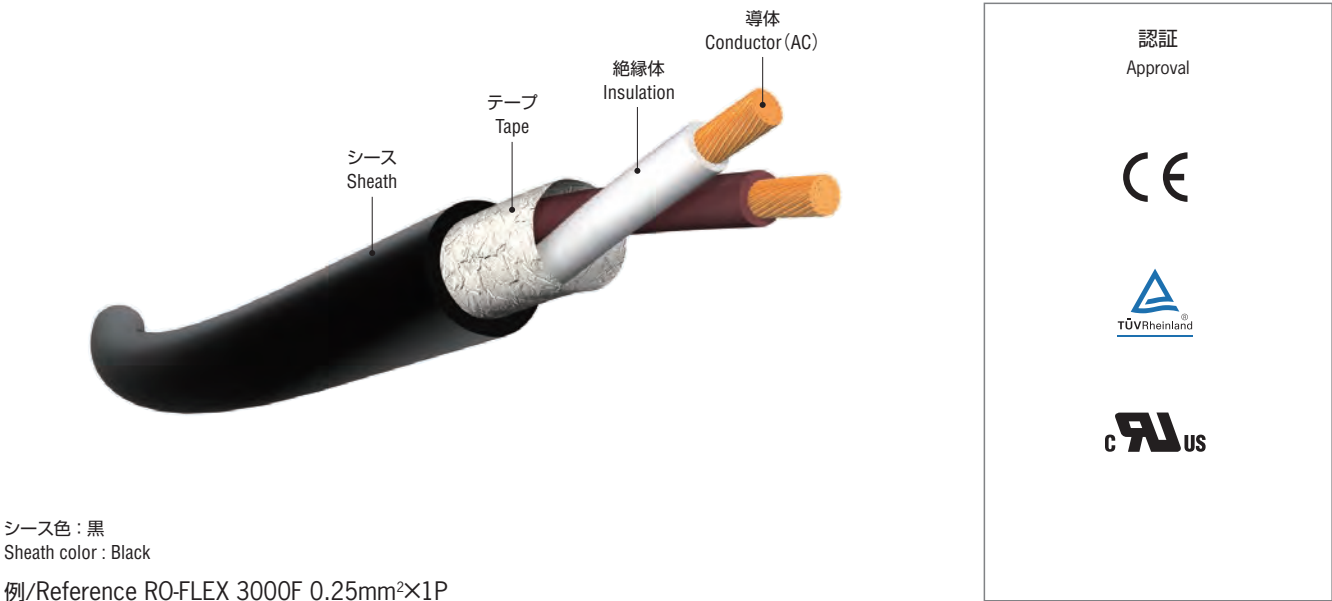
| 温度(℃)<br>Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX 3000F

Robot cable. Internal wiring for electronic components and outer connection.

WORLD WIDE STANDARD CABLE

Recognition-Series



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 3000F 0.25mm<sup>2</sup>×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | C                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部  
2. 信号線  
3. 通信線

1. Constant movement  
2. Signal line  
3. Communication line

特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

RO-FLEX 3000F series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

| ケーブル構造 CABLE CONSTRUCTION |                                                             |                                                            |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 3000 0002501              | 0.25mm <sup>2</sup> /24AWG                                  | 48/0.08<br>〈0.7mm〉                                         | 1.5                                     | 1P                      | 4.9                                      | 27                           | 75.4                                    | 4.0                                                                    |
| 3000 0002502              |                                                             |                                                            |                                         | 2P                      | 7.0                                      | 46                           |                                         | 3.3                                                                    |
| 3000 0002503              |                                                             |                                                            |                                         | 3P                      | 7.4                                      | 56                           |                                         | 2.8                                                                    |
| 3000 0002504              |                                                             |                                                            |                                         | 4P                      | 8.3                                      | 72                           |                                         | 2.5                                                                    |
| 3000 0002505              |                                                             |                                                            |                                         | 5P                      | 9.2                                      | 90                           |                                         | 2.5                                                                    |
| 3000 0002506              |                                                             |                                                            |                                         | 6P                      | 10.0                                     | 105                          |                                         | 2.3                                                                    |
| 3000 0002507              |                                                             |                                                            |                                         | 7P                      | 10.0                                     | 109                          |                                         | 2.3                                                                    |
| 3000 0002508              |                                                             |                                                            |                                         | 8P                      | 10.8                                     | 131                          |                                         | 2.0                                                                    |
| 3000 0002510              |                                                             |                                                            |                                         | 10P                     | 12.3                                     | 157                          |                                         | 2.0                                                                    |
| 3000 0002512              |                                                             |                                                            |                                         | 12P                     | 12.7                                     | 176                          |                                         | 1.5                                                                    |
| 3000 0002516              |                                                             |                                                            |                                         | 16P                     | 14.2                                     | 227                          |                                         | 1.5                                                                    |
| 3000 0002520              |                                                             |                                                            |                                         | 20P                     | 15.9                                     | 283                          |                                         | 1.5                                                                    |
| 3000 0003401              | 0.34mm <sup>2</sup> /22AWG                                  | 68/0.08<br>〈0.85mm〉                                        | 1.65                                    | 1P                      | 5.2                                      | 31                           | 55.4                                    | 4.8                                                                    |
| 3000 0003402              |                                                             |                                                            |                                         | 2P                      | 7.5                                      | 53                           |                                         | 3.9                                                                    |
| 3000 0003403              |                                                             |                                                            |                                         | 3P                      | 8.2                                      | 70                           |                                         | 3.3                                                                    |
| 3000 0003404              |                                                             |                                                            |                                         | 4P                      | 8.9                                      | 85                           |                                         | 3.0                                                                    |
| 3000 0003405              |                                                             |                                                            |                                         | 5P                      | 9.9                                      | 107                          |                                         | 3.0                                                                    |
| 3000 0003406              |                                                             |                                                            |                                         | 6P                      | 10.9                                     | 129                          |                                         | 2.7                                                                    |
| 3000 0003407              |                                                             |                                                            |                                         | 7P                      | 10.9                                     | 135                          |                                         | 2.7                                                                    |
| 3000 0003408              |                                                             |                                                            |                                         | 8P                      | 11.6                                     | 157                          |                                         | 2.4                                                                    |
| 3000 0003410              |                                                             |                                                            |                                         | 10P                     | 13.3                                     | 188                          |                                         | 2.4                                                                    |
| 3000 0003412              |                                                             |                                                            |                                         | 12P                     | 13.9                                     | 218                          |                                         | 1.8                                                                    |
| 3000 0003416              |                                                             |                                                            |                                         | 16P                     | 15.5                                     | 281                          |                                         | 1.8                                                                    |
| 3000 0003420              |                                                             |                                                            |                                         | 20P                     | 17.4                                     | 350                          |                                         | 1.8                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

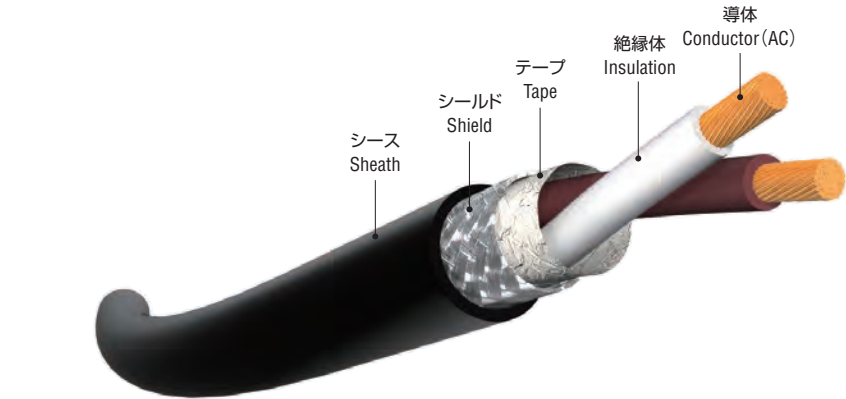
■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

# RO-FLEX 3000FS

Robot cable. Screened wires.  
Internal wiring for electronic components and outer connection.

## EMC対策/To keep the EMC



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 3000FS 0.25mm<sup>2</sup>×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | A                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部

2. 信号線

3. 通信線

4. 耐ノイズ環境

1. Constant movement

2. Signal line

3. Communication line

4. Noise resistance

### 特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。  
このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 3000FS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                          | UL       | c-UL               |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50011069                                                  | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | VDE 0812                                                    | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | A01V2V5-F                                                   | 2464     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 100/100V                                                    | 300V     | 300V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                    |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                      | 80℃      | 105℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                  | VW-1     | FT1                |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class6                                            | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/[識別2]参照<br>Heat resistant PVC/See core identification |          |                    |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                      |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black              |          |                    |

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 3000 1002501        | 0.25mm <sup>2</sup> /24AWG                                  | 48/0.08<br>〈0.7mm〉                                         | 1.5                                     | 1P                      | 5.4                                      | 41                           | 75.4                                    | 4.0                                                                    |
| 3000 1002502        |                                                             |                                                            |                                         | 2P                      | 7.5                                      | 67                           |                                         | 3.3                                                                    |
| 3000 1002503        |                                                             |                                                            |                                         | 3P                      | 8.1                                      | 82                           |                                         | 2.8                                                                    |
| 3000 1002504        |                                                             |                                                            |                                         | 4P                      | 8.8                                      | 98                           |                                         | 2.5                                                                    |
| 3000 1002505        |                                                             |                                                            |                                         | 5P                      | 9.7                                      | 118                          |                                         | 2.5                                                                    |
| 3000 1002506        |                                                             |                                                            |                                         | 6P                      | 10.7                                     | 141                          |                                         | 2.3                                                                    |
| 3000 1002507        |                                                             |                                                            |                                         | 7P                      | 10.7                                     | 145                          |                                         | 2.3                                                                    |
| 3000 1002508        |                                                             |                                                            |                                         | 8P                      | 11.3                                     | 164                          |                                         | 2.0                                                                    |
| 3000 1002510        |                                                             |                                                            |                                         | 10P                     | 12.8                                     | 195                          |                                         | 2.0                                                                    |
| 3000 1002512        |                                                             |                                                            |                                         | 12P                     | 13.2                                     | 215                          |                                         | 1.5                                                                    |
| 3000 1002516        |                                                             |                                                            |                                         | 16P                     | 14.7                                     | 271                          |                                         | 1.5                                                                    |
| 3000 1002520        |                                                             |                                                            |                                         | 20P                     | 16.6                                     | 340                          |                                         | 1.5                                                                    |
| 3000 1003401        | 0.34mm <sup>2</sup> /22AWG                                  | 68/0.08<br>〈0.85mm〉                                        | 1.65                                    | 1P                      | 5.7                                      | 46                           | 55.4                                    | 4.8                                                                    |
| 3000 1003402        |                                                             |                                                            |                                         | 2P                      | 8.2                                      | 79                           |                                         | 3.9                                                                    |
| 3000 1003403        |                                                             |                                                            |                                         | 3P                      | 8.7                                      | 94                           |                                         | 3.3                                                                    |
| 3000 1003404        |                                                             |                                                            |                                         | 4P                      | 9.6                                      | 118                          |                                         | 3.0                                                                    |
| 3000 1003405        |                                                             |                                                            |                                         | 5P                      | 10.4                                     | 138                          |                                         | 3.0                                                                    |
| 3000 1003406        |                                                             |                                                            |                                         | 6P                      | 11.4                                     | 163                          |                                         | 2.7                                                                    |
| 3000 1003407        |                                                             |                                                            |                                         | 7P                      | 11.4                                     | 168                          |                                         | 2.7                                                                    |
| 3000 1003408        |                                                             |                                                            |                                         | 8P                      | 12.3                                     | 198                          |                                         | 2.4                                                                    |
| 3000 1003410        |                                                             |                                                            |                                         | 10P                     | 14.0                                     | 236                          |                                         | 2.4                                                                    |
| 3000 1003412        |                                                             |                                                            |                                         | 12P                     | 14.4                                     | 261                          |                                         | 1.8                                                                    |
| 3000 1003416        |                                                             |                                                            |                                         | 16P                     | 16.0                                     | 329                          |                                         | 1.8                                                                    |
| 3000 1003420        |                                                             |                                                            |                                         | 20P                     | 18.1                                     | 414                          |                                         | 1.8                                                                    |

●販売条長：153m Standard length：153m(500Ft)

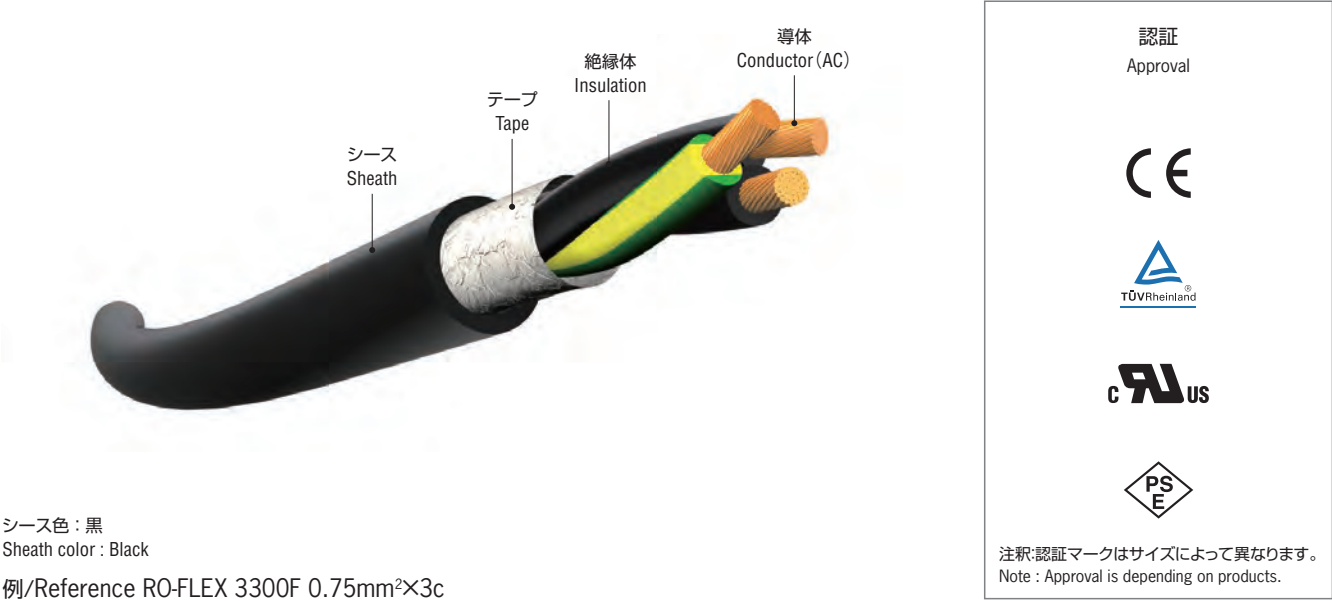
※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

#### ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

RO-FLEX 3300F

Robot cable. Oil resistant PVC cable with two or more conductors.



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 3300F 0.75mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。 Refer to technical data.

用 途 Application

1. 可動部  
2. 電源線

1. Constant movement  
2. Power line

特 長 Characteristics

CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 3300F series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                            | UL                                                         | c-UL                                                       | PSE※                       |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | R 50010540<br>J 50010525                                                                                                                      | E 194236                                                   | E 194236                                                   | JD 60154182<br>JD 60154183 |
|                       | 適用規格<br>Standard                        | EN 50525                                                                                                                                      | UL 758                                                     | CSA C22.2 No.210                                           | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                                                                                     | 2464:0.5～1.0mm <sup>2</sup><br>2586:1.5～4.0mm <sup>2</sup> | AWM I/II Group A/B                                         | 〈PS〉E                      |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V                                                                                                                                      | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～4.0mm <sup>2</sup> | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～4.0mm <sup>2</sup> | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                      |                                                            |                                                            |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                                                                             |                                                            |                                                            |                            |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                                                                                                        | 80℃:0.5～1.0mm <sup>2</sup><br>105℃:1.5～4.0mm <sup>2</sup>  | 105℃                                                       | 0℃～90℃                     |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |                                                            |                                                            |                            |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                    | VW-1                                                       | FT1                                                        | EN 50265-2-1 (IEC 60332-1) |
|                       | 導体<br>Conductor                         | IEC 60228 Class 6                                                                                                                             | ASTM B 3                                                   |                                                            | IEC 60228 Class 6          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナシ/バンク白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering + Y/G The cable of 2c are excluding Yellow/Green. |                                                            |                                                            |                            |
|                       | シース/シース色<br>Sheath/Sheath color         |                                                                                                                                               | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black             |                                                            |                            |

※電気用品安全法は0.75mm<sup>2</sup>以上にのみ適用されています。  
※Denan law is applicable to 0.75mm<sup>2</sup> and more

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 3300 0005002        | 0.5mm <sup>2</sup> /21AWG                                   | 90/0.08<br><1.0mm                                         | 2.2                                     | 芯                  | 6.3                                      | 42                           | 39                                      | 6.4                                                                    |
| 3300 0005003        |                                                             |                                                           |                                         | 2c                 | 6.7                                      | 52                           |                                         | 5.6                                                                    |
| 3300 0005004        |                                                             |                                                           |                                         | 3c                 | 7.2                                      | 63                           |                                         | 5.2                                                                    |
| 3300 0005005        |                                                             |                                                           |                                         | 4c                 | 8.0                                      | 79                           |                                         | 4.8                                                                    |
| 3300 0005006        |                                                             |                                                           |                                         | 5c                 | 8.7                                      | 92                           |                                         | 4.4                                                                    |
| 3300 0005007        |                                                             |                                                           |                                         | 6c                 | 9.7                                      | 111                          |                                         | 4.4                                                                    |
| 3300 0005008        |                                                             |                                                           |                                         | 7c                 | 10.4                                     | 125                          |                                         | 4.0                                                                    |
| 3300 0005010        |                                                             |                                                           |                                         | 8c                 | 11.3                                     | 146                          |                                         | 4.0                                                                    |
| 3300 0005012        |                                                             |                                                           |                                         | 10c                | 11.7                                     | 165                          |                                         | 3.6                                                                    |
| 3300 0005016        |                                                             |                                                           |                                         | 12c                | 13.0                                     | 212                          |                                         | 3.2                                                                    |
| 3300 0005018        |                                                             |                                                           |                                         | 16c                | 13.9                                     | 242                          |                                         | 3.2                                                                    |
| 3300 0005020        |                                                             |                                                           |                                         | 18c                | 14.6                                     | 265                          |                                         | 3.2                                                                    |
| 3300 0007502        | 0.75mm <sup>2</sup> /19AWG                                  | 150/0.08<br><1.2mm                                        | 2.4                                     | 2c                 | 6.7                                      | 51                           | 26                                      | 8.8                                                                    |
| 3300 0007503        |                                                             |                                                           |                                         | 3c                 | 7.1                                      | 64                           |                                         | 7.7                                                                    |
| 3300 0007504        |                                                             |                                                           |                                         | 4c                 | 7.9                                      | 83                           |                                         | 7.2                                                                    |
| 3300 0007505        |                                                             |                                                           |                                         | 5c                 | 8.6                                      | 99                           |                                         | 6.6                                                                    |
| 3300 0007506        |                                                             |                                                           |                                         | 6c                 | 9.5                                      | 120                          |                                         | 6.1                                                                    |
| 3300 0007507        |                                                             |                                                           |                                         | 7c                 | 10.3                                     | 138                          |                                         | 6.1                                                                    |
| 3300 0007508        |                                                             |                                                           |                                         | 8c                 | 11.3                                     | 162                          |                                         | 5.5                                                                    |
| 3300 0007510        |                                                             |                                                           |                                         | 10c                | 12.3                                     | 190                          |                                         | 5.5                                                                    |
| 3300 0007512        |                                                             |                                                           |                                         | 12c                | 12.7                                     | 216                          |                                         | 5.0                                                                    |
| 3300 0007516        |                                                             |                                                           |                                         | 16c                | 14.2                                     | 279                          |                                         | 4.4                                                                    |
| 3300 0007518        |                                                             |                                                           |                                         | 18c                | 15.1                                     | 316                          |                                         | 4.4                                                                    |
| 3300 0007520        |                                                             |                                                           |                                         | 20c                | 15.9                                     | 347                          |                                         | 4.4                                                                    |
| 3300 0010002        | 1.0mm <sup>2</sup> /18AWG                                   | 7/27/0.08<br><1.4mm                                       | 2.6                                     | 2c                 | 7.1                                      | 57                           | 19.5                                    | 18.0                                                                   |
| 3300 0010003        |                                                             |                                                           |                                         | 3c                 | 7.5                                      | 73                           |                                         | 18.0                                                                   |
| 3300 0010004        |                                                             |                                                           |                                         | 4c                 | 8.4                                      | 95                           |                                         | 14.4                                                                   |
| 3300 0010005        |                                                             |                                                           |                                         | 5c                 | 9.3                                      | 118                          |                                         | 14.4                                                                   |
| 3300 0010006        |                                                             |                                                           |                                         | 6c                 | 10.1                                     | 138                          |                                         | 14.4                                                                   |
| 3300 0010007        |                                                             |                                                           |                                         | 7c                 | 11.2                                     | 165                          |                                         | 12.6                                                                   |
| 3300 0010008        |                                                             |                                                           |                                         | 8c                 | 12.2                                     | 192                          |                                         | 12.6                                                                   |
| 3300 0010010        |                                                             |                                                           |                                         | 10c                | 13.1                                     | 219                          |                                         | 9.0                                                                    |
| 3300 0010012        |                                                             |                                                           |                                         | 12c                | 13.7                                     | 255                          |                                         | 9.0                                                                    |
| 3300 0010016        |                                                             |                                                           |                                         | 16c                | 15.3                                     | 330                          |                                         | 9.0                                                                    |
| 3300 0010018        |                                                             |                                                           |                                         | 18c                | 16.1                                     | 366                          |                                         | 9.0                                                                    |
| 3300 0010020        |                                                             |                                                           |                                         | 20c                | 17.2                                     | 411                          |                                         | 9.0                                                                    |
| 3300 0015002        | 1.5mm <sup>2</sup> /16AWG                                   | 7/41/0.08<br><1.7mm                                       | 3.3                                     | 2c                 | 8.7                                      | 84                           | 13.3                                    | 24                                                                     |
| 3300 0015003        |                                                             |                                                           |                                         | 3c                 | 9.4                                      | 113                          |                                         | 24                                                                     |
| 3300 0015004        |                                                             |                                                           |                                         | 4c                 | 10.3                                     | 141                          |                                         | 19                                                                     |
| 3300 0015005        |                                                             |                                                           |                                         | 5c                 | 11.4                                     | 175                          |                                         | 19                                                                     |
| 3300 0015006        |                                                             |                                                           |                                         | 6c                 | 12.6                                     | 212                          |                                         | 19                                                                     |
| 3300 0015007        |                                                             |                                                           |                                         | 7c                 | 14.0                                     | 252                          |                                         | 16                                                                     |
| 3300 0015008        |                                                             |                                                           |                                         | 8c                 | 15.2                                     | 293                          |                                         | 16                                                                     |
| 3300 0015010        |                                                             |                                                           |                                         | 10c                | 16.5                                     | 342                          |                                         | 12                                                                     |
| 3300 0015012        |                                                             |                                                           |                                         | 12c                | 17.0                                     | 389                          |                                         | 12                                                                     |
| 3300 0015016        |                                                             |                                                           |                                         | 16c                | 19.0                                     | 503                          |                                         | 12                                                                     |
| 3300 0015018        |                                                             |                                                           |                                         | 18c                | 20.2                                     | 568                          |                                         | 12                                                                     |
| 3300 0015020        |                                                             |                                                           |                                         | 20c                | 21.5                                     | 635                          |                                         | 12                                                                     |
| 3300 0025002        | 2.5mm <sup>2</sup> /14AWG                                   | 7/70/0.08<br><2.3mm                                       | 3.9                                     | 2c                 | 10.1                                     | 129                          | 7.98                                    | 30                                                                     |
| 3300 0025003        |                                                             |                                                           |                                         | 3c                 | 10.9                                     | 169                          |                                         | 30                                                                     |
| 3300 0025004        |                                                             |                                                           |                                         | 4c                 | 12.1                                     | 215                          |                                         | 24                                                                     |
| 3300 0025005        |                                                             |                                                           |                                         | 5c                 | 13.2                                     | 250                          |                                         | 24                                                                     |
| 3300 0025006        |                                                             |                                                           |                                         | 6c                 | 14.6                                     | 302                          |                                         | 24                                                                     |
| 3300 0025007        |                                                             |                                                           |                                         | 7c                 | 16.2                                     | 359                          |                                         | 21                                                                     |
| 3300 0025008        |                                                             |                                                           |                                         | 8c                 | 17.6                                     | 416                          |                                         | 21                                                                     |
| 3300 0025010        |                                                             |                                                           |                                         | 10c                | 19.1                                     | 486                          |                                         | 15                                                                     |
| 3300 0025012        |                                                             |                                                           |                                         | 12c                | 19.9                                     | 567                          |                                         | 15                                                                     |
| 3300 0025016        |                                                             |                                                           |                                         | 16c                | 22.4                                     | 744                          |                                         | 15                                                                     |
| 3300 0025018        |                                                             |                                                           |                                         | 18c                | 23.8                                     | 838                          |                                         | 15                                                                     |
| 3300 0025020        |                                                             |                                                           |                                         | 20c                | 25.3                                     | 936                          |                                         | 15                                                                     |
| 3300 0040002        | 4.0mm <sup>2</sup> /12AWG                                   | 7/110/0.08<br><2.8mm                                      | 4.6                                     | 2c                 | 11.7                                     | 181                          | 4.95                                    | 35                                                                     |
| 3300 0040003        |                                                             |                                                           |                                         | 3c                 | 12.6                                     | 237                          |                                         | 35                                                                     |
| 3300 0040004        |                                                             |                                                           |                                         | 4c                 | 14.0                                     | 304                          |                                         | 28                                                                     |
| 3300 0040005        |                                                             |                                                           |                                         | 5c                 | 15.5                                     | 362                          |                                         | 28                                                                     |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>～0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

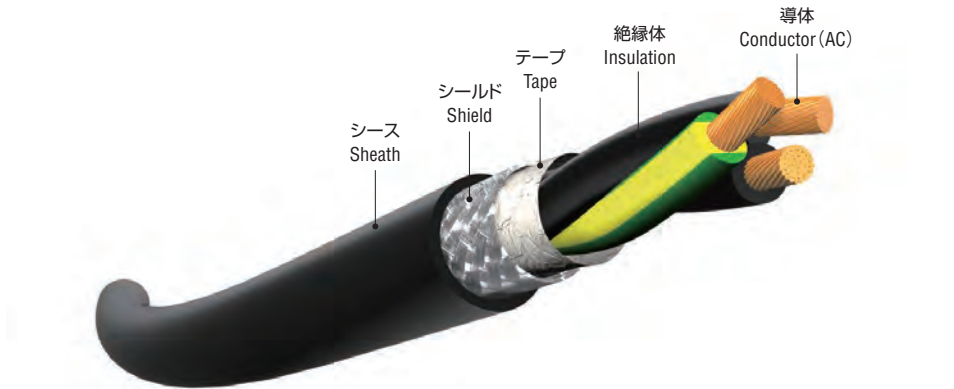
【1.0mm<sup>2</sup>～4.0mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX 3300FS

Robot cable. Screened wires. Oil resistant PVC cable with two or more conductors.

EMC対策/To keep the EMC



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX 3300FS 0.75mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | B                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部

2. 電源線

3. 耐ノイズ環境

1. Constant movement

2. Power line

3. Noise resistance

特 長 Characteristics

CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 3300FS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

| ■認証 APPROVAL          |                                         |                                                                                                                                               |                                                            |                                                            |                            |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|----------------------------|
| 項目 Item               |                                         | CE                                                                                                                                            | UL                                                         | c-UL                                                       | PSE※                       |
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010534<br>J 50010549                                                                                                                      | E 194236                                                   | E 194236                                                   | JD 60154182<br>JD 60154183 |
|                       | 適用規格<br>Standard                        | EN 50525                                                                                                                                      | UL 758                                                     | CSA C22.2 No.210                                           | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2C4V5-F                                                                                                                                   | 2464:0.5～1.0mm <sup>2</sup><br>2586:1.5～4.0mm <sup>2</sup> | AWM I/II Group A/B                                         | 〈PS〉E                      |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V                                                                                                                                      | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～4.0mm <sup>2</sup> | 300V:0.5～1.0mm <sup>2</sup><br>600V:1.5～4.0mm <sup>2</sup> | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                      |                                                            |                                                            |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                                                                             |                                                            |                                                            |                            |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                                                                                                        | 80℃:0.5～1.0mm <sup>2</sup><br>105℃:1.5～4.0mm <sup>2</sup>  | 105℃                                                       | 0℃～90℃                     |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |                                                            |                                                            |                            |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                    | VW-1                                                       | FT1                                                        | EN 50265-2-1 (IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 6                                                                                                                             | ASTM B 3                                                   |                                                            | IEC 60228 Class 6          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering + Y/G The cable of 2c are excluding Yellow/Green. |                                                            |                                                            |                            |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                                                                                        |                                                            |                                                            |                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                                                                                                |                                                            |                                                            |                            |

※電気用品安全法は0.75mm<sup>2</sup>以上にのみ適用されています。  
※Denan law is applicable to 0.75mm<sup>2</sup> and more

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
|---------------------|----------------------------------------------------------|--------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 3300 1005002        | 0.5mm <sup>2</sup> /21AWG                                | 90/0.08<br>(1.0mm)                                     | 2.2                                  | 2c                      | 6.8                                   | 61                           | 39                                   | 6.4                                                                 |
| 3300 1005003        |                                                          |                                                        |                                      | 3c                      | 7.2                                   | 72                           |                                      | 5.6                                                                 |
| 3300 1005004        |                                                          |                                                        |                                      | 4c                      | 7.9                                   | 89                           |                                      | 5.2                                                                 |
| 3300 1005005        |                                                          |                                                        |                                      | 5c                      | 8.5                                   | 103                          |                                      | 4.8                                                                 |
| 3300 1005006        |                                                          |                                                        |                                      | 6c                      | 9.4                                   | 124                          |                                      | 4.4                                                                 |
| 3300 1005007        |                                                          |                                                        |                                      | 7c                      | 10.2                                  | 142                          |                                      | 4.4                                                                 |
| 3300 1005008        |                                                          |                                                        |                                      | 8c                      | 11.1                                  | 162                          |                                      | 4.0                                                                 |
| 3300 1005010        |                                                          |                                                        |                                      | 10c                     | 11.8                                  | 181                          |                                      | 4.0                                                                 |
| 3300 1005012        |                                                          |                                                        |                                      | 12c                     | 12.4                                  | 209                          |                                      | 3.6                                                                 |
| 3300 1005016        |                                                          |                                                        |                                      | 16c                     | 13.7                                  | 259                          |                                      | 3.2                                                                 |
| 3300 1005018        |                                                          |                                                        |                                      | 18c                     | 14.4                                  | 285                          |                                      | 3.2                                                                 |
| 3300 1005020        |                                                          |                                                        |                                      | 20c                     | 15.3                                  | 317                          |                                      | 3.2                                                                 |
| 3300 1007502        | 0.75mm <sup>2</sup> /19AWG                               | 150/0.08<br>(1.2mm)                                    | 2.4                                  | 2c                      | 7.2                                   | 71                           | 26                                   | 8.8                                                                 |
| 3300 1007503        |                                                          |                                                        |                                      | 3c                      | 7.8                                   | 89                           |                                      | 7.7                                                                 |
| 3300 1007504        |                                                          |                                                        |                                      | 4c                      | 8.4                                   | 106                          |                                      | 7.2                                                                 |
| 3300 1007505        |                                                          |                                                        |                                      | 5c                      | 9.3                                   | 131                          |                                      | 6.6                                                                 |
| 3300 1007506        |                                                          |                                                        |                                      | 6c                      | 10.0                                  | 151                          |                                      | 6.1                                                                 |
| 3300 1007507        |                                                          |                                                        |                                      | 7c                      | 11.0                                  | 175                          |                                      | 6.1                                                                 |
| 3300 1007508        |                                                          |                                                        |                                      | 8c                      | 11.8                                  | 197                          |                                      | 5.5                                                                 |
| 3300 1007510        |                                                          |                                                        |                                      | 10c                     | 12.8                                  | 227                          |                                      | 5.5                                                                 |
| 3300 1007512        |                                                          |                                                        |                                      | 12c                     | 13.2                                  | 254                          |                                      | 5.0                                                                 |
| 3300 1007516        |                                                          |                                                        |                                      | 16c                     | 14.7                                  | 322                          |                                      | 4.4                                                                 |
| 3300 1007518        |                                                          |                                                        |                                      | 18c                     | 15.6                                  | 363                          |                                      | 4.4                                                                 |
| 3300 1007520        |                                                          |                                                        |                                      | 20c                     | 16.6                                  | 404                          |                                      | 4.4                                                                 |
| 3300 1010002        | 1.0mm <sup>2</sup> /18AWG                                | 7/27/0.08<br>(1.4mm)                                   | 2.6                                  | 2c                      | 7.8                                   | 82                           | 19.5                                 | 18.0                                                                |
| 3300 1010003        |                                                          |                                                        |                                      | 3c                      | 8.2                                   | 99                           |                                      | 18.0                                                                |
| 3300 1010004        |                                                          |                                                        |                                      | 4c                      | 8.9                                   | 122                          |                                      | 14.4                                                                |
| 3300 1010005        |                                                          |                                                        |                                      | 5c                      | 9.8                                   | 146                          |                                      | 14.4                                                                |
| 3300 1010006        |                                                          |                                                        |                                      | 6c                      | 10.8                                  | 174                          |                                      | 14.4                                                                |
| 3300 1010007        |                                                          |                                                        |                                      | 7c                      | 11.7                                  | 199                          |                                      | 12.6                                                                |
| 3300 1010008        |                                                          |                                                        |                                      | 8c                      | 12.7                                  | 229                          |                                      | 12.6                                                                |
| 3300 1010010        |                                                          |                                                        |                                      | 10c                     | 13.8                                  | 266                          |                                      | 9.0                                                                 |
| 3300 1010012        |                                                          |                                                        |                                      | 12c                     | 14.2                                  | 297                          |                                      | 9.0                                                                 |
| 3300 1010016        |                                                          |                                                        |                                      | 16c                     | 15.8                                  | 377                          |                                      | 9.0                                                                 |
| 3300 1010018        |                                                          |                                                        |                                      | 18c                     | 16.8                                  | 425                          |                                      | 9.0                                                                 |
| 3300 1010020        |                                                          |                                                        |                                      | 20c                     | 17.9                                  | 474                          |                                      | 9.0                                                                 |
| 3300 1015002        | 1.5mm <sup>2</sup> /16AWG                                | 7/41/0.08<br>(1.7mm)                                   | 3.3                                  | 2c                      | 9.4                                   | 116                          | 13.3                                 | 24                                                                  |
| 3300 1015003        |                                                          |                                                        |                                      | 3c                      | 9.9                                   | 141                          |                                      | 24                                                                  |
| 3300 1015004        |                                                          |                                                        |                                      | 4c                      | 11.0                                  | 178                          |                                      | 19                                                                  |
| 3300 1015005        |                                                          |                                                        |                                      | 5c                      | 12.1                                  | 216                          |                                      | 19                                                                  |
| 3300 1015006        |                                                          |                                                        |                                      | 6c                      | 13.1                                  | 250                          |                                      | 19                                                                  |
| 3300 1015007        |                                                          |                                                        |                                      | 7c                      | 14.5                                  | 295                          |                                      | 16                                                                  |
| 3300 1015008        |                                                          |                                                        |                                      | 8c                      | 15.7                                  | 340                          |                                      | 16                                                                  |
| 3300 1015010        |                                                          |                                                        |                                      | 10c                     | 17.0                                  | 394                          |                                      | 12                                                                  |
| 3300 1015012        |                                                          |                                                        |                                      | 12c                     | 17.5                                  | 442                          |                                      | 12                                                                  |
| 3300 1015016        |                                                          |                                                        |                                      | 16c                     | 19.7                                  | 573                          |                                      | 12                                                                  |
| 3300 1015018        |                                                          |                                                        |                                      | 18c                     | 20.9                                  | 641                          |                                      | 12                                                                  |
| 3300 1015020        |                                                          |                                                        |                                      | 20c                     | 22.0                                  | 704                          |                                      | 12                                                                  |
| 3300 1025002        | 2.5mm <sup>2</sup> /14AWG                                | 7/70/0.08<br>(2.3mm)                                   | 3.9                                  | 2c                      | 10.8                                  | 166                          | 7.98                                 | 30                                                                  |
| 3300 1025003        |                                                          |                                                        |                                      | 3c                      | 11.4                                  | 202                          |                                      | 30                                                                  |
| 3300 1025004        |                                                          |                                                        |                                      | 4c                      | 12.6                                  | 252                          |                                      | 24                                                                  |
| 3300 1025005        |                                                          |                                                        |                                      | 5c                      | 13.9                                  | 298                          |                                      | 24                                                                  |
| 3300 1025006        |                                                          |                                                        |                                      | 6c                      | 15.3                                  | 355                          |                                      | 24                                                                  |
| 3300 1025007        |                                                          |                                                        |                                      | 7c                      | 16.9                                  | 418                          |                                      | 21                                                                  |
| 3300 1025008        |                                                          |                                                        |                                      | 8c                      | 18.3                                  | 480                          |                                      | 21                                                                  |
| 3300 1025010        |                                                          |                                                        |                                      | 10c                     | 19.8                                  | 556                          |                                      | 15                                                                  |
| 3300 1025012        |                                                          |                                                        |                                      | 12c                     | 20.4                                  | 629                          |                                      | 15                                                                  |
| 3300 1025016        |                                                          |                                                        |                                      | 16c                     | 22.9                                  | 815                          |                                      | 15                                                                  |
| 3300 1025018        |                                                          |                                                        |                                      | 18c                     | 24.3                                  | 914                          |                                      | 15                                                                  |
| 3300 1025020        |                                                          |                                                        |                                      | 20c                     | 25.8                                  | 1016                         |                                      | 15                                                                  |
| 3300 1040002        | 4.0mm <sup>2</sup> /12AWG                                | 7/110/0.08<br>(2.8mm)                                  | 4.6                                  | 2c                      | 12.4                                  | 223                          | 4.95                                 | 35                                                                  |
| 3300 1040003        |                                                          |                                                        |                                      | 3c                      | 13.1                                  | 276                          |                                      | 35                                                                  |
| 3300 1040004        |                                                          |                                                        |                                      | 4c                      | 14.5                                  | 347                          |                                      | 28                                                                  |
| 3300 1040005        |                                                          |                                                        |                                      | 5c                      | 16.0                                  | 410                          |                                      | 28                                                                  |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>～0.75mm<sup>2</sup>】

■温度減少係数

Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

【1.0mm<sup>2</sup>～4.0mm<sup>2</sup>】

■温度減少係数

Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

WORLD WIDE STANDARD CABLE

# Millennium-Edition-Series

ミレニアムエディションシリーズ

WORLD WIDE STANDARD CABLE  
Millennium-Edition-Series

ミレニアムエディションシリーズ製品一覧  
Millennium-Edition Series product list

| 製品名<br>Product name    | 公称断面積<br>Nominal cross sectional area |           | 電圧<br>Voltage (V)   |              | 使用温度<br>Ambient temperature (°C) |              | 特性※<br>Characteristic※ |                        |                 |                           |                           |                 | 環境<br>Environmental issue | Page No. |
|------------------------|---------------------------------------|-----------|---------------------|--------------|----------------------------------|--------------|------------------------|------------------------|-----------------|---------------------------|---------------------------|-----------------|---------------------------|----------|
|                        | AWG                                   | mm²       | 北米<br>North America | 欧州<br>Europe | 北米<br>North America              | 欧州<br>Europe | 耐油性<br>Oil resistance  | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐候性<br>Weather resistance | 耐ノイズ性<br>Noise resistance | アウトガス<br>Outgas | RoHS指令<br>RoHS Directive  |          |
| RO-FLEX-PREMIUM-1100T  | 21—14                                 | 0.5—2.5   | 600                 | 300/500      | —15～+105                         | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 49       |
| RO-FLEX-PREMIUM-1100TS | 21—14                                 | 0.5—2.5   | 600                 | 300/500      | —15～+105                         | —15～+90      | A                      | B                      | B               | C                         | B                         | C               | 適合<br>Compliance          | 51       |
| RO-FLEX-3MDT           | 18+14E                                | 0.75+2.5E | 300                 | 300/500      | —15～+80                          | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 53       |
| RO-FLEX-PREMIUM-9000F  | 26—19                                 | 0.14—0.75 | 30                  | 350 Peak     | 0～+80                            | 0～+90        | A                      | B                      | A               | A                         | C                         | C               | 適合<br>Compliance          | 55       |
| RO-FLEX-PREMIUM-9000FS | 26—19                                 | 0.14—0.75 | 30                  | 350 Peak     | 0～+80                            | 0～+90        | A                      | B                      | A               | A                         | A                         | C               | 適合<br>Compliance          | 57       |
| RO-FLEX-3MDF           | 18+14E                                | 0.75+2.5E | 300                 | 300/500      | 0～+80                            | 0～+90        | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 59       |

※特性 characteristic  
アウトガス Outgas P112  
耐熱性 Heat resistance P113  
耐油性 Oil resistance P114  
難燃性 Flame retardant P115  
耐屈曲性 Flexing P117  
耐ノイズ性 Noise resistance P119  
耐候性 Weather resistance P120



細外径で省スペース化に最適  
Small diameter, Small space.

多様な機能を付加  
Various functions.

安全規格適合(CEマーキング, UL, c-UL(CSA))  
Conformity to safety standard.(CE-marking, UL, c-UL(CSA))

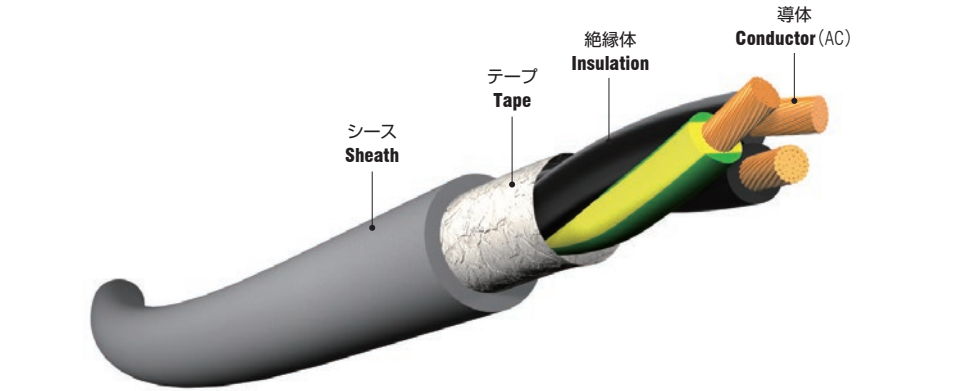


# RO-FLEX-PREMIUM-1100T

For fixed installation. Oil resistant PVC cable with two or more conductors.

WORLD WIDE STANDARD CABLE  
Millennium-Edition-Series

## 細外径/Small diameter



シース色：灰  
Sheath color : Grey

例/Reference RO-FLEX-PREMIUM-1100T 0.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 電源線

1. Fixed installation  
2. Power line

**特 長 Characteristics**

CE, UL, c-ULに適合しており1つのケーブルで多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

RO-FLEX-PREMIUM-1100T series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                           | UL       | c-UL               |
|-----------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50498820                                                                                                                                   | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | EN 50525                                                                                                                                     | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                                                                                    | 2586     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V                                                                                                                                     | 600V     | 600V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                     |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                                                                            |          |                    |
|                       | 使用温度<br>Temperature range               | −15℃〜90℃                                                                                                                                     | 105℃     | 105℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                 |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                   | VW-1     | FT1                |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                            | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering +Y/G The cable of 2c are excluding Yellow/Green. |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey                                                                                                |          |                    |

認証  
Approval

CE

TÜVRheinland

cULus

| ケーブル構造 CABLE CONSTRUCTION |                                                 |                                                          |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 1120 0005002              | 0.5mm²/21AWG                                    | 19/0.18<br><0.85mm>                                      | 1.65                                    | 2c                      | 5.0                                      | 30                           | 39                                      | 6.4                                                                    |
| 1120 0005003              |                                                 |                                                          |                                         | 3c                      | 5.3                                      | 38                           |                                         | 5.6                                                                    |
| 1120 0005004              |                                                 |                                                          |                                         | 4c                      | 5.7                                      | 47                           |                                         | 5.2                                                                    |
| 1120 0005005              |                                                 |                                                          |                                         | 5c                      | 6.2                                      | 56                           |                                         | 4.8                                                                    |
| 1120 0005006              |                                                 |                                                          |                                         | 6c                      | 6.7                                      | 65                           |                                         | 4.4                                                                    |
| 1120 0005007              |                                                 |                                                          |                                         | 7c                      | 7.2                                      | 75                           |                                         | 4.4                                                                    |
| 1120 0005008              |                                                 |                                                          |                                         | 8c                      | 7.9                                      | 88                           |                                         | 4.0                                                                    |
| 1120 0005010              |                                                 |                                                          |                                         | 10c                     | 8.5                                      | 102                          |                                         | 4.0                                                                    |
| 1120 0005012              |                                                 |                                                          |                                         | 12c                     | 9.0                                      | 121                          |                                         | 3.6                                                                    |
| 1120 0005020              |                                                 |                                                          |                                         | 20c                     | 11.1                                     | 193                          |                                         | 3.2                                                                    |
| 1120 0005030              |                                                 |                                                          |                                         | 30c                     | 13.4                                     | 283                          |                                         | 2.4                                                                    |
| 1120 0007502              | 0.75mm²/19AWG                                   | 28/0.18<br><1.0mm>                                       | 1.8                                     | 2c                      | 5.3                                      | 37                           | 26                                      | 8.8                                                                    |
| 1120 0007503              |                                                 |                                                          |                                         | 3c                      | 5.6                                      | 47                           |                                         | 7.7                                                                    |
| 1120 0007504              |                                                 |                                                          |                                         | 4c                      | 6.1                                      | 58                           |                                         | 7.2                                                                    |
| 1120 0007505              |                                                 |                                                          |                                         | 5c                      | 6.6                                      | 70                           |                                         | 6.6                                                                    |
| 1120 0007506              |                                                 |                                                          |                                         | 6c                      | 7.1                                      | 82                           |                                         | 6.1                                                                    |
| 1120 0007507              |                                                 |                                                          |                                         | 7c                      | 7.9                                      | 98                           |                                         | 6.1                                                                    |
| 1120 0007508              |                                                 |                                                          |                                         | 8c                      | 8.5                                      | 111                          |                                         | 5.5                                                                    |
| 1120 0007510              |                                                 |                                                          |                                         | 10c                     | 9.3                                      | 133                          |                                         | 5.5                                                                    |
| 1120 0007512              |                                                 |                                                          |                                         | 12c                     | 9.6                                      | 152                          |                                         | 5.0                                                                    |
| 1120 0007520              |                                                 |                                                          |                                         | 20c                     | 12.1                                     | 252                          |                                         | 4.4                                                                    |
| 1120 0007530              |                                                 |                                                          |                                         | 30c                     | 14.3                                     | 361                          |                                         | 3.3                                                                    |
| 1120 0010002              | 1.0mm²/18AWG                                    | 37/0.18<br><1.2mm>                                       | 2.0                                     | 2c                      | 5.7                                      | 43                           | 19.5                                    | 18.0                                                                   |
| 1120 0010003              |                                                 |                                                          |                                         | 3c                      | 6.0                                      | 56                           |                                         | 18.0                                                                   |
| 1120 0010004              |                                                 |                                                          |                                         | 4c                      | 6.5                                      | 70                           |                                         | 14.4                                                                   |
| 1120 0010005              |                                                 |                                                          |                                         | 5c                      | 7.1                                      | 84                           |                                         | 14.4                                                                   |
| 1120 0010006              |                                                 |                                                          |                                         | 6c                      | 7.9                                      | 103                          |                                         | 14.4                                                                   |
| 1120 0010007              |                                                 |                                                          |                                         | 7c                      | 8.6                                      | 119                          |                                         | 12.6                                                                   |
| 1120 0010008              |                                                 |                                                          |                                         | 8c                      | 9.4                                      | 140                          |                                         | 12.6                                                                   |
| 1120 0010010              |                                                 |                                                          |                                         | 10c                     | 10.1                                     | 162                          |                                         | 9.0                                                                    |
| 1120 0010012              |                                                 |                                                          |                                         | 12c                     | 10.6                                     | 191                          |                                         | 9.0                                                                    |
| 1120 0010020              |                                                 |                                                          |                                         | 20c                     | 13.4                                     | 316                          |                                         | 9.0                                                                    |
| 1120 0010030              |                                                 |                                                          |                                         | 30c                     | 15.8                                     | 453                          |                                         | 9.0                                                                    |
| 1120 0015002              | 1.5mm²/16AWG                                    | 56/0.18<br><1.4mm>                                       | 2.4                                     | 2c                      | 6.5                                      | 58                           | 13.3                                    | 24                                                                     |
| 1120 0015003              |                                                 |                                                          |                                         | 3c                      | 6.9                                      | 77                           |                                         | 24                                                                     |
| 1120 0015004              |                                                 |                                                          |                                         | 4c                      | 7.7                                      | 101                          |                                         | 19                                                                     |
| 1120 0015005              |                                                 |                                                          |                                         | 5c                      | 8.4                                      | 123                          |                                         | 19                                                                     |
| 1120 0015006              |                                                 |                                                          |                                         | 6c                      | 9.3                                      | 149                          |                                         | 19                                                                     |
| 1120 0015007              |                                                 |                                                          |                                         | 7c                      | 10.1                                     | 172                          |                                         | 17                                                                     |
| 1120 0015008              |                                                 |                                                          |                                         | 8c                      | 11.1                                     | 201                          |                                         | 17                                                                     |
| 1120 0015010              |                                                 |                                                          |                                         | 10c                     | 12.1                                     | 240                          |                                         | 12                                                                     |
| 1120 0015012              |                                                 |                                                          |                                         | 12c                     | 12.5                                     | 277                          |                                         | 12                                                                     |
| 1120 0025002              | 2.5mm²/14AWG                                    | 93/0.18<br><1.9mm>                                       | 2.9                                     | 2c                      | 7.7                                      | 92                           | 7.98                                    | 30                                                                     |
| 1120 0025003              |                                                 |                                                          |                                         | 3c                      | 8.2                                      | 120                          |                                         | 30                                                                     |
| 1120 0025004              |                                                 |                                                          |                                         | 4c                      | 9.1                                      | 155                          |                                         | 24                                                                     |
| 1120 0025005              |                                                 |                                                          |                                         | 5c                      | 9.9                                      | 183                          |                                         | 24                                                                     |
| 1120 0025006              |                                                 |                                                          |                                         | 6c                      | 11.0                                     | 223                          |                                         | 24                                                                     |
| 1120 0025007              |                                                 |                                                          |                                         | 7c                      | 12.2                                     | 264                          |                                         | 21                                                                     |
| 1120 0025008              |                                                 |                                                          |                                         | 8c                      | 13.3                                     | 306                          |                                         | 21                                                                     |
| 1120 0025010              |                                                 |                                                          |                                         | 10c                     | 14.3                                     | 359                          |                                         | 15                                                                     |
| 1120 0025012              |                                                 |                                                          |                                         | 12c                     | 15.0                                     | 424                          |                                         | 15                                                                     |

●販売条長：153m Standard length：153m(500ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>〜0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

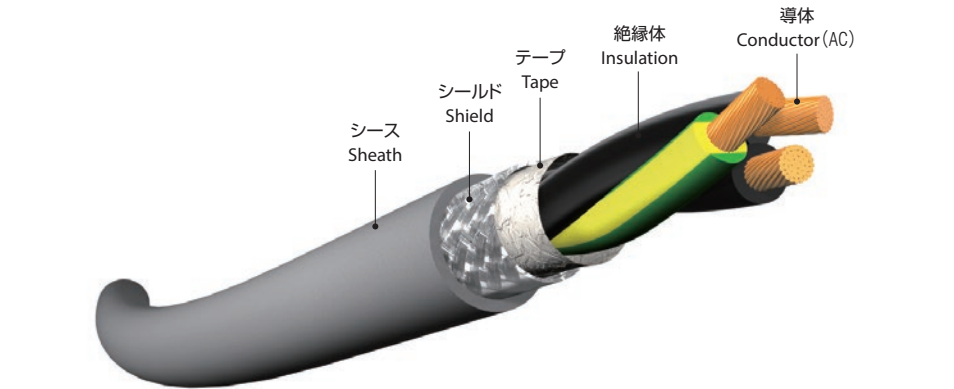
【1.0mm<sup>2</sup>〜2.5mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 | 61~70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX-PREMIUM-1100TS

For fixed installation. Screened wires.  
Oil resistant PVC cable with two or more conductors.

細外径/Small diameter EMC対策/To keep the EMC



シース色：灰  
Sheath color : Grey

例/Reference RO-FLEX-PREMIUM-1100TS 1.0mm×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                          | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | B                         | 機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 電源線  
3. 耐ノイズ環境

1. Fixed installation  
2. Power line  
3. Noise resistance

特 長 Characteristics

CE, UL, c-ULに適合しており1つのケーブルで多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX-PREMIUM-1100TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                           | UL       | c-UL               |
|-----------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50498820                                                                                                                                   | E 194236 | E 194236           |
|                       | 適用規格<br>Standard                        | EN 50525                                                                                                                                     | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | A05V2C4V5-F                                                                                                                                  | 2586     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V                                                                                                                                     | 600V     | 600V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                     |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                                                                            |          |                    |
|                       | 使用温度<br>Temperature range               | −15℃〜90℃                                                                                                                                     | 105℃     | 105℃               |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                 |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                                                                   | VW-1     | FT1                |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                            | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+黄/緑 2cはアース線(黄/緑)無しです。<br>Heat resistant PVC/Black core with white numbering +Y/G The cable of 2c are excluding Yellow/Green. |          |                    |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                                                                                       |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/灰<br>Oil and Heat resistant PVC/Grey                                                                                                |          |                    |

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
|                     |                                                 |                                                          |                                         | 芯                  |                                          |                              |                                         |                                                                        |
| 1120 1005002        | 0.5mm²/21AWG                                    | 19/0.18<br>(0.85mm)                                      | 1.65                                    | 2c                 | 5.5                                      | 45                           | 39                                      | 6.4                                                                    |
| 1120 1005003        |                                                 |                                                          |                                         | 3c                 | 5.8                                      | 55                           |                                         | 5.6                                                                    |
| 1120 1005004        |                                                 |                                                          |                                         | 4c                 | 6.2                                      | 64                           |                                         | 5.2                                                                    |
| 1120 1005005        |                                                 |                                                          |                                         | 5c                 | 6.7                                      | 75                           |                                         | 4.8                                                                    |
| 1120 1005006        |                                                 |                                                          |                                         | 6c                 | 7.2                                      | 86                           |                                         | 4.4                                                                    |
| 1120 1005007        |                                                 |                                                          |                                         | 7c                 | 7.9                                      | 101                          |                                         | 4.4                                                                    |
| 1120 1005008        |                                                 |                                                          |                                         | 8c                 | 8.4                                      | 112                          |                                         | 4.0                                                                    |
| 1120 1005010        |                                                 |                                                          |                                         | 10c                | 9.2                                      | 133                          |                                         | 4.0                                                                    |
| 1120 1005012        |                                                 |                                                          |                                         | 12c                | 9.5                                      | 148                          |                                         | 3.6                                                                    |
| 1120 1005020        |                                                 |                                                          |                                         | 20c                | 11.8                                     | 233                          |                                         | 3.2                                                                    |
| 1120 1005030        |                                                 |                                                          |                                         | 30c                | 13.9                                     | 324                          |                                         | 2.4                                                                    |
| 1120 1007502        | 0.75mm²/19AWG                                   | 28/0.18<br>(1.0mm)                                       | 1.8                                     | 2c                 | 5.8                                      | 53                           | 26                                      | 8.8                                                                    |
| 1120 1007503        |                                                 |                                                          |                                         | 3c                 | 6.1                                      | 63                           |                                         | 7.7                                                                    |
| 1120 1007504        |                                                 |                                                          |                                         | 4c                 | 6.6                                      | 76                           |                                         | 7.2                                                                    |
| 1120 1007505        |                                                 |                                                          |                                         | 5c                 | 7.1                                      | 90                           |                                         | 6.6                                                                    |
| 1120 1007506        |                                                 |                                                          |                                         | 6c                 | 7.8                                      | 107                          |                                         | 6.1                                                                    |
| 1120 1007507        |                                                 |                                                          |                                         | 7c                 | 8.4                                      | 122                          |                                         | 6.1                                                                    |
| 1120 1007508        |                                                 |                                                          |                                         | 8c                 | 9.2                                      | 143                          |                                         | 5.5                                                                    |
| 1120 1007510        |                                                 |                                                          |                                         | 10c                | 9.8                                      | 163                          |                                         | 5.5                                                                    |
| 1120 1007512        |                                                 |                                                          |                                         | 12c                | 10.1                                     | 183                          |                                         | 5.0                                                                    |
| 1120 1007520        |                                                 |                                                          |                                         | 20c                | 12.6                                     | 290                          |                                         | 4.4                                                                    |
| 1120 1007530        |                                                 |                                                          |                                         | 30c                | 15.0                                     | 413                          |                                         | 3.3                                                                    |
| 1120 1010002        | 1.0mm²/18AWG                                    | 37/0.18<br>(1.2mm)                                       | 2.0                                     | 2c                 | 6.2                                      | 60                           | 19.5                                    | 18.0                                                                   |
| 1120 1010003        |                                                 |                                                          |                                         | 3c                 | 6.5                                      | 74                           |                                         | 18.0                                                                   |
| 1120 1010004        |                                                 |                                                          |                                         | 4c                 | 7.0                                      | 90                           |                                         | 14.4                                                                   |
| 1120 1010005        |                                                 |                                                          |                                         | 5c                 | 7.8                                      | 110                          |                                         | 14.4                                                                   |
| 1120 1010006        |                                                 |                                                          |                                         | 6c                 | 8.4                                      | 127                          |                                         | 14.4                                                                   |
| 1120 1010007        |                                                 |                                                          |                                         | 7c                 | 9.3                                      | 151                          |                                         | 12.6                                                                   |
| 1120 1010008        |                                                 |                                                          |                                         | 8c                 | 9.9                                      | 170                          |                                         | 12.6                                                                   |
| 1120 1010010        |                                                 |                                                          |                                         | 10c                | 10.8                                     | 198                          |                                         | 9.0                                                                    |
| 1120 1010012        |                                                 |                                                          |                                         | 12c                | 11.1                                     | 224                          |                                         | 9.0                                                                    |
| 1120 1010020        |                                                 |                                                          |                                         | 20c                | 13.9                                     | 358                          |                                         | 9.0                                                                    |
| 1120 1010030        |                                                 |                                                          |                                         | 30c                | 16.5                                     | 512                          |                                         | 9.0                                                                    |
| 1120 1015002        | 1.5mm²/16AWG                                    | 56/0.18<br>(1.4mm)                                       | 2.4                                     | 2c                 | 7.0                                      | 78                           | 13.3                                    | 24                                                                     |
| 1120 1015003        |                                                 |                                                          |                                         | 3c                 | 7.6                                      | 102                          |                                         | 24                                                                     |
| 1120 1015004        |                                                 |                                                          |                                         | 4c                 | 8.2                                      | 124                          |                                         | 19                                                                     |
| 1120 1015005        |                                                 |                                                          |                                         | 5c                 | 9.1                                      | 154                          |                                         | 19                                                                     |
| 1120 1015006        |                                                 |                                                          |                                         | 6c                 | 9.8                                      | 180                          |                                         | 19                                                                     |
| 1120 1015007        |                                                 |                                                          |                                         | 7c                 | 10.8                                     | 209                          |                                         | 17                                                                     |
| 1120 1015008        |                                                 |                                                          |                                         | 8c                 | 11.8                                     | 241                          |                                         | 17                                                                     |
| 1120 1015010        |                                                 |                                                          |                                         | 10c                | 12.6                                     | 278                          |                                         | 12                                                                     |
| 1120 1015012        |                                                 |                                                          |                                         | 12c                | 13.0                                     | 317                          |                                         | 12                                                                     |
| 1120 1025002        | 2.5mm²/14AWG                                    | 93/0.18<br>(1.9mm)                                       | 2.9                                     | 2c                 | 8.2                                      | 115                          | 7.98                                    | 30                                                                     |
| 1120 1025003        |                                                 |                                                          |                                         | 3c                 | 8.9                                      | 151                          |                                         | 30                                                                     |
| 1120 1025004        |                                                 |                                                          |                                         | 4c                 | 9.6                                      | 183                          |                                         | 24                                                                     |
| 1120 1025005        |                                                 |                                                          |                                         | 5c                 | 10.6                                     | 220                          |                                         | 24                                                                     |
| 1120 1025006        |                                                 |                                                          |                                         | 6c                 | 11.5                                     | 257                          |                                         | 24                                                                     |
| 1120 1025007        |                                                 |                                                          |                                         | 7c                 | 12.7                                     | 302                          |                                         | 21                                                                     |
| 1120 1025008        |                                                 |                                                          |                                         | 8c                 | 13.8                                     | 348                          |                                         | 21                                                                     |
| 1120 1025010        |                                                 |                                                          |                                         | 10c                | 15.0                                     | 411                          |                                         | 15                                                                     |
| 1120 1025012        |                                                 |                                                          |                                         | 12c                | 15.5                                     | 470                          |                                         | 15                                                                     |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>〜0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11〜15 | 16〜20 | 21〜25 | 26〜30 | 31〜35 | 36〜40 | 41〜45 | 46〜50 | 51〜55 | 56〜60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

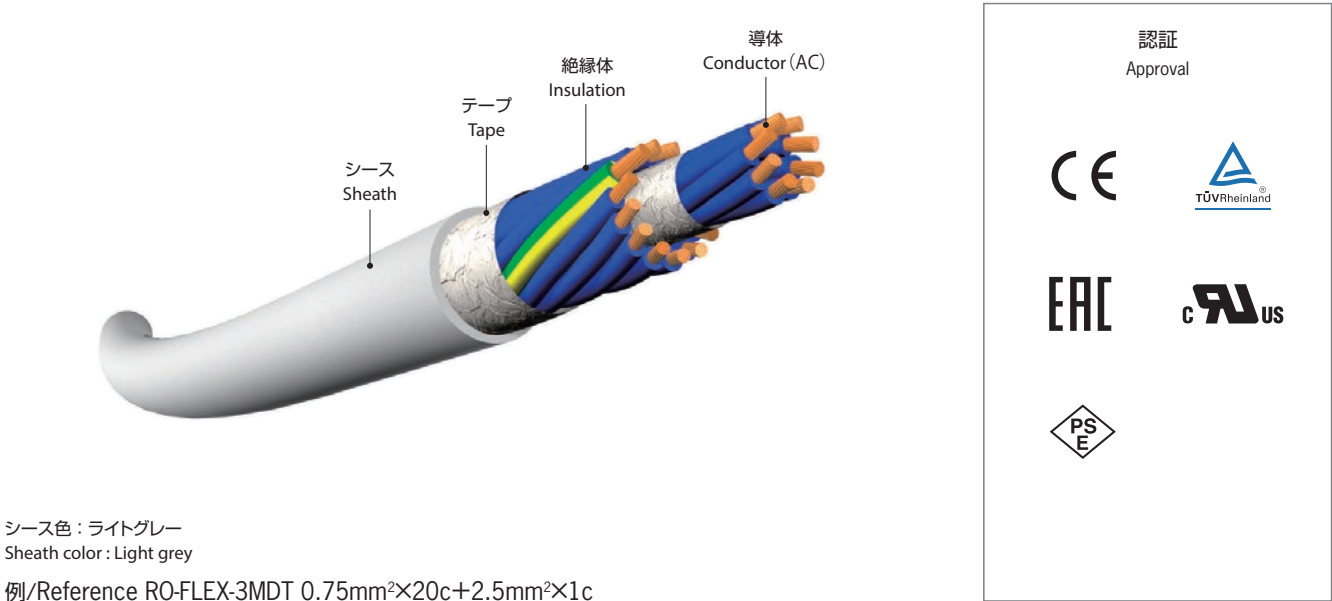
【1.0mm<sup>2</sup>〜2.5mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21〜25 | 26〜30 | 31〜35 | 36〜40 | 41〜45 | 46〜50 | 51〜55 | 56〜60 | 61〜70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

# RO-FLEX-3MDT

For fixed installation. Especially Purpose for Auto Mobile Industry.

WORLD WIDE STANDARD CABLE  
Millennium-Edition-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-3MDT 0.75mm²×20c+2.5mm²×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                                                  | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 青:DC制御回路<br>赤:AC制御回路<br>Blue:DC (Control)<br>Red:AC (Control) | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 電源線  
3. 信号線

1. Fixed installation  
2. Power line  
3. Signal line

## 特 長 Characteristics

CE, EAC, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

RO-FLEX-3MDT series enable to simplify the design and efficient storage for the reduction of costs due to CE, EAC, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                             |                  | CE                                                                                 | EAC                     | UL       | c-UL                                                                                | PSE                           |
|-----------------------|---------------------------------------------|------------------|------------------------------------------------------------------------------------|-------------------------|----------|-------------------------------------------------------------------------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                  |                  | J 50498820                                                                         | RU C-JP.AR46.B.17404/20 | E 194236 | E 194236                                                                            | JD 60154183                   |
|                       | 適用規格<br>Standard                            |                  | EN 50525                                                                           | ГОСТ 24334-80           | UL 758   | CSA C22.2 No.210                                                                    | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation               |                  | A05V2V5-F                                                                          | ---                     | 2464     | AWM I/II<br>Group A/B                                                               | (PS)E                         |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage              |                  | 300/500V                                                                           | 1000V                   | 300V     | 300V                                                                                | 300/500V                      |
|                       | 耐電圧<br>Test voltage                         |                  | 2500V/5分                                                                           |                         |          |                                                                                     |                               |
|                       | 絶縁抵抗<br>Insulation resistance               |                  | 200MΩ・km (at 20℃)                                                                  |                         |          |                                                                                     |                               |
|                       | 使用温度<br>Temperature range                   |                  | -15℃～90℃                                                                           | 100℃                    | 80℃      | 105℃                                                                                | -15℃～90℃                      |
|                       | 曲げ半径<br>Minimum bending for radius          |                  | 6D D=ケーブル外径/Overall diameter                                                       |                         |          |                                                                                     |                               |
|                       | 難燃性<br>Flame retardant                      |                  | EN 50265-2-1<br>(IEC 60332-1)                                                      | Fire Approval           | VW-1     | FT1                                                                                 | EN 50265-2-1<br>(IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                             |                  | IEC 60228 Class 5                                                                  |                         | ASTM B 3 |                                                                                     | IEC 60228 Class 5             |
|                       | 絶縁/識別<br>Insulation/<br>Core identification | DCタイプ<br>DC Type | 耐熱PVC/青/ナンバリング白+緑/黄<br>Heat resistant PVC/Blue core with white numbering +G/Y      |                         |          | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |                               |
|                       |                                             | ACタイプ<br>AC Type | 耐熱PVC/赤/ナンバリング白+緑/黄<br>Heat resistant PVC/Red core with white numbering +G/Y       |                         |          | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |                               |
|                       | シース/シース色<br>Sheath/Sheath color             |                  | 耐油・耐熱PVC/ライトグレー (N7)<br>Oil and Heat resistant PVC/Light Grey (Mansel number : N7) |                         |          |                                                                                     |                               |

※緑/黄は、2.5mm(14AWG)になります。 ※Green/Yellow is 2.5mm(14AWG).

| ケーブル構造 CABLE CONSTRUCTION |                                                 |                                                          |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 3600 0007502              | 0.75mm²/18AWG                                   | 33/0.18〈1.1〉                                             | 2.1                                     | 2c                      | 5.9                                      | 43                           | 21.8                                    | 8.8                                                                    |
| 3600 0007503              | 0.75mm²/18AWG                                   | 33/0.18〈1.1〉                                             | 2.1                                     | 3c                      | 6.2                                      | 56                           | 21.8                                    | 7.7                                                                    |
| 3600 0007504              | 0.75mm²/18AWG                                   | 33/0.18〈1.1〉                                             | 2.1                                     | 4c                      | 6.8                                      | 70                           | 21.8                                    | 7.2                                                                    |
| 3600 0007508              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 7c<br>1c                | 9.0                                      | 145                          | 21.8<br>7.98                            | 6.1                                                                    |
| 3600 0007511              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 10c<br>1c               | 11.3                                     | 197                          | 21.8<br>7.98                            | 5.5                                                                    |
| 3600 0007521              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 20c<br>1c               | 14.5                                     | 340                          | 21.8<br>7.98                            | 4.4                                                                    |
| 3600 0007531              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 30c<br>1c               | 17.4                                     | 476                          | 21.8<br>7.98                            | 3.3                                                                    |
| 3600 0007541              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 40c<br>1c               | 19.6                                     | 618                          | 21.8<br>7.98                            | 3.3                                                                    |
| 3600 0007551              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.1<br>2.9                              | 50c<br>1c               | 21.2                                     | 741                          | 21.8<br>7.98                            | 3.3                                                                    |

●販売条長：153m Standard length：153m (500Ft) / 3600 0007502～04  
305m Standard length：305m (1000Ft) / 3600 0007508～51

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

## ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

RO-FLEX-PREMIUM-9000F

Robot cable. Internal wiring for electronic components and outer connection.

高屈曲/Highly Flexible

シース色：黒  
Sheath color : Black

例/Reference RO-FLEX-PREMIUM-9000F 0.25mm<sup>2</sup>×2c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | C                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動ロボット部

2. 信号線

1. Constant robot movement

2. Signal line

■認証 APPROVAL

| 項目 Item                            | CE                                                                                                       | UL       | c-UL                |
|------------------------------------|----------------------------------------------------------------------------------------------------------|----------|---------------------|
| 認証<br>Approval                     | J 50010985                                                                                               | E 194236 | E 194236            |
| 適応規格<br>Standard                   | VDE 0812                                                                                                 | UL 758   | CSA C22.2 No.210    |
| ケーブルデザイン<br>Cable designation      | LIYY                                                                                                     | 20276    | AWM I /II Group A/B |
| 公称電圧<br>Rated voltage              | 350V Peak:0.14～0.5mm <sup>2</sup><br>500V Peak:0.75mm <sup>2</sup>                                       | 30V      | 30V                 |
| 耐電圧<br>Test voltage                | 1200V/分                                                                                                  | 500V/分   | 500V/分              |
| 絶縁抵抗<br>Insulation resistance      | 200MQ・km (at 20℃)                                                                                        |          |                     |
| 使用温度<br>Temperature range          | 0℃～90℃                                                                                                   | 80℃      | 105℃                |
| 曲げ半径<br>Minimum bending for radius | 6D D=ケーブル外径/Outside diameter                                                                             |          |                     |
| 難燃性<br>Flame retardant             | EN 50265-2-1 (IEC 60332-1)                                                                               | VW-1     | FT1                 |
| 構造<br>Construction                 | 導體<br>Conductor<br>UL 758                                                                                |          |                     |
|                                    | 絶縁/識別<br>Insulation/Core identification<br>耐熱PVC/「識別1、2」参照<br>Heat resistant PVC/See core identification |          |                     |
|                                    | シース/シース色<br>Sheath/Sheath color<br>耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                        |          |                     |

| WORLD WIDE STANDARD CABLE Millennium-Edition-Series |                                                          |                                                         |                                      |                                     |                                       |                              |                                      |                                                                     |
|-----------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| ケーブル構造 CABLE CONSTRUCTION                           |                                                          |                                                         |                                      |                                     |                                       |                              |                                      |                                                                     |
| 商品番号<br>Part number                                 | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores/<br>pairs<br>芯/対 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 9061 0001401                                        | 0.14mm <sup>2</sup> /26AWG                               | 27/0.08<br>〈0.5mm〉                                      | 1.0                                  | 1P                                  | 3.7                                   | 16                           | 175                                  | 3.6                                                                 |
| 9061 0001402                                        |                                                          |                                                         |                                      | 2P                                  | 5.1                                   | 26                           |                                      | 2.7                                                                 |
| 9061 0001403                                        |                                                          |                                                         |                                      | 3P                                  | 5.4                                   | 31                           |                                      | 2.3                                                                 |
| 9061 0001404                                        |                                                          |                                                         |                                      | 4P                                  | 5.8                                   | 37                           |                                      | 2.0                                                                 |
| 9061 0001405                                        |                                                          |                                                         |                                      | 5P                                  | 6.3                                   | 44                           |                                      | 1.9                                                                 |
| 9061 0001406                                        |                                                          |                                                         |                                      | 6P                                  | 6.8                                   | 51                           |                                      | 1.8                                                                 |
| 9061 0001407                                        |                                                          |                                                         |                                      | 7P                                  | 6.8                                   | 53                           |                                      | 1.6                                                                 |
| 9061 0001408                                        |                                                          |                                                         |                                      | 8P                                  | 7.2                                   | 61                           |                                      | 1.5                                                                 |
| 9061 0001410                                        |                                                          |                                                         |                                      | 10P                                 | 8.3                                   | 75                           |                                      | 1.4                                                                 |
| 9061 0001412                                        |                                                          |                                                         |                                      | 12P                                 | 8.6                                   | 85                           |                                      | 1.3                                                                 |
| 9061 0001416                                        |                                                          |                                                         |                                      | 16P                                 | 9.6                                   | 111                          |                                      | 1.2                                                                 |
| 9061 0001420                                        |                                                          |                                                         |                                      | 20P                                 | 10.8                                  | 139                          |                                      | 1.1                                                                 |
| 9060 0002502                                        | 0.25mm <sup>2</sup> /24AWG                               | 48/0.08<br>〈0.7mm〉                                      | 1.2                                  | 2c                                  | 4.1                                   | 20                           | 98.4                                 | 5.2                                                                 |
| 9060 0002503                                        |                                                          |                                                         |                                      | 3c                                  | 4.3                                   | 24                           |                                      | 4.4                                                                 |
| 9060 0002504                                        |                                                          |                                                         |                                      | 4c                                  | 4.6                                   | 29                           |                                      | 3.9                                                                 |
| 9060 0002505                                        |                                                          |                                                         |                                      | 5c                                  | 4.9                                   | 33                           |                                      | 3.5                                                                 |
| 9060 0002506                                        |                                                          |                                                         |                                      | 6c                                  | 5.3                                   | 38                           |                                      | 3.2                                                                 |
| 9060 0002507                                        |                                                          |                                                         |                                      | 7c                                  | 5.7                                   | 44                           |                                      | 3.0                                                                 |
| 9060 0002508                                        |                                                          |                                                         |                                      | 8c                                  | 6.1                                   | 49                           |                                      | 2.9                                                                 |
| 9060 0002510                                        |                                                          |                                                         |                                      | 10c                                 | 6.5                                   | 56                           |                                      | 2.7                                                                 |
| 9060 0002512                                        |                                                          |                                                         |                                      | 12c                                 | 6.7                                   | 63                           |                                      | 2.6                                                                 |
| 9060 0002516                                        |                                                          |                                                         |                                      | 16c                                 | 7.5                                   | 82                           |                                      | 2.2                                                                 |
| 9060 0002518                                        |                                                          |                                                         |                                      | 18c                                 | 7.9                                   | 91                           |                                      | 2.1                                                                 |
| 9060 0002520                                        |                                                          |                                                         |                                      | 20c                                 | 8.3                                   | 100                          |                                      | 2.0                                                                 |
| 9060 0003402                                        | 0.34mm <sup>2</sup> /22AWG                               | 68/0.08<br>〈0.85mm〉                                     | 1.35                                 | 2c                                  | 4.4                                   | 23                           | 69.3                                 | 6.0                                                                 |
| 9060 0003403                                        |                                                          |                                                         |                                      | 3c                                  | 4.6                                   | 28                           |                                      | 5.1                                                                 |
| 9060 0003404                                        |                                                          |                                                         |                                      | 4c                                  | 5.0                                   | 35                           |                                      | 4.5                                                                 |
| 9060 0003405                                        |                                                          |                                                         |                                      | 5c                                  | 5.3                                   | 40                           |                                      | 4.1                                                                 |
| 9060 0003406                                        |                                                          |                                                         |                                      | 6c                                  | 5.8                                   | 47                           |                                      | 3.8                                                                 |
| 9060 0003407                                        |                                                          |                                                         |                                      | 7c                                  | 6.2                                   | 53                           |                                      | 3.5                                                                 |
| 9060 0003408                                        |                                                          |                                                         |                                      | 8c                                  | 6.6                                   | 60                           |                                      | 3.4                                                                 |
| 9060 0003410                                        |                                                          |                                                         |                                      | 10c                                 | 7.1                                   | 69                           |                                      | 3.1                                                                 |
| 9060 0003412                                        |                                                          |                                                         |                                      | 12c                                 | 7.5                                   | 82                           |                                      | 3.0                                                                 |
| 9060 0003416                                        |                                                          |                                                         |                                      | 16c                                 | 8.2                                   | 103                          |                                      | 2.6                                                                 |
| 9060 0003418                                        |                                                          |                                                         |                                      | 18c                                 | 8.9                                   | 119                          |                                      | 2.4                                                                 |
| 9060 0003420                                        |                                                          |                                                         |                                      | 20c                                 | 9.3                                   | 130                          |                                      | 2.3                                                                 |
| 9060 0005002                                        | 0.5mm <sup>2</sup> /21AWG                                | 90/0.08<br>〈1.0mm〉                                      | 1.5                                  | 2c                                  | 4.7                                   | 27                           | 49.2                                 | 8.1                                                                 |
| 9060 0005003                                        |                                                          |                                                         |                                      | 3c                                  | 4.9                                   | 33                           |                                      | 6.9                                                                 |
| 9060 0005004                                        |                                                          |                                                         |                                      | 4c                                  | 5.3                                   | 40                           |                                      | 6.0                                                                 |
| 9060 0005005                                        |                                                          |                                                         |                                      | 5c                                  | 5.8                                   | 48                           |                                      | 5.5                                                                 |
| 9060 0005006                                        |                                                          |                                                         |                                      | 6c                                  | 6.2                                   | 56                           |                                      | 5.1                                                                 |
| 9060 0005007                                        |                                                          |                                                         |                                      | 7c                                  | 6.7                                   | 64                           |                                      | 4.8                                                                 |
| 9060 0005008                                        |                                                          |                                                         |                                      | 8c                                  | 7.2                                   | 72                           |                                      | 4.5                                                                 |
| 9060 0005010                                        |                                                          |                                                         |                                      | 10c                                 | 7.9                                   | 87                           |                                      | 4.2                                                                 |
| 9060 0005012                                        |                                                          |                                                         |                                      | 12c                                 | 8.1                                   | 99                           |                                      | 4.1                                                                 |
| 9060 0005016                                        |                                                          |                                                         |                                      | 16c                                 | 9.2                                   | 130                          |                                      | 3.5                                                                 |
| 9060 0005018                                        |                                                          |                                                         |                                      | 18c                                 | 9.6                                   | 144                          |                                      | 3.2                                                                 |
| 9060 0005020                                        |                                                          |                                                         |                                      | 20c                                 | 10.1                                  | 158                          |                                      | 3.1                                                                 |
| 9060 0007502                                        | 0.75mm <sup>2</sup> /19AWG                               | 150/0.08<br>〈1.2mm〉                                     | 2.0                                  | 2c                                  | 5.7                                   | 40                           | 32.8                                 | 10.1                                                                |
| 9060 0007503                                        |                                                          |                                                         |                                      | 3c                                  | 6.0                                   | 50                           |                                      | 8.6                                                                 |
| 9060 0007504                                        |                                                          |                                                         |                                      | 4c                                  | 6.5                                   | 62                           |                                      | 7.6                                                                 |
| 9060 0007505                                        |                                                          |                                                         |                                      | 5c                                  | 7.1                                   | 75                           |                                      | 6.9                                                                 |
| 9060 0007506                                        |                                                          |                                                         |                                      | 6c                                  | 7.9                                   | 91                           |                                      | 6.3                                                                 |
| 9060 0007507                                        |                                                          |                                                         |                                      | 7c                                  | 8.6                                   | 106                          |                                      | 5.9                                                                 |
| 9060 0007508                                        |                                                          |                                                         |                                      | 8c                                  | 9.4                                   | 124                          |                                      | 5.7                                                                 |
| 9060 0007510                                        |                                                          |                                                         |                                      | 10c                                 | 10.1                                  | 143                          |                                      | 5.3                                                                 |
| 9060 0007512                                        |                                                          |                                                         |                                      | 12c                                 | 10.6                                  | 169                          |                                      | 5.1                                                                 |
| 9060 0007516                                        |                                                          |                                                         |                                      | 16c                                 | 11.9                                  | 220                          |                                      | 4.3                                                                 |
| 9060 0007518                                        |                                                          |                                                         |                                      | 18c                                 | 12.5                                  | 244                          |                                      | 4.1                                                                 |
| 9060 0007520                                        |                                                          |                                                         |                                      | 20c                                 | 13.4                                  | 275                          |                                      | 3.9                                                                 |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

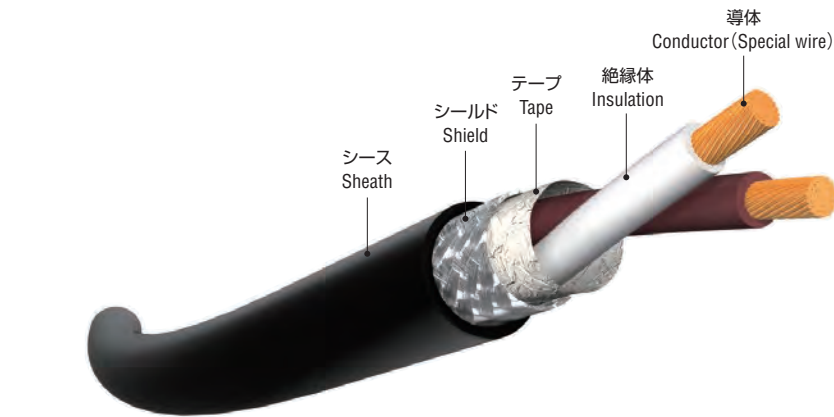
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NICHIGOH 56

RO-FLEX-PREMIUM-9000FS

Robot cable. Screened wires.  
Internal wiring for electronic components and outer connection.

高屈曲/Highly Flexible    EMC対策/To keep the EMC



シース色：黒  
Sheath color：Black

例/Reference RO-FLEX-PREMIUM-9000FS 0.25mm<sup>2</sup>×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | A                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途    Application

1. 可動ロボット部  
2. 信号線  
3. 耐ノイズ環境

1. Constant robot movement  
2. Signal line  
3. Noise resistance

特 長    Characteristics

CE, UL, c-ULに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、RoHS指令「2011/65/EU」に適合しています。

RO-FLEX-PREMIUM-9000FS series enable to simplify the design and efficient storage for the reduction of costs due to CE, UL and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

■認証    APPROVAL

| 項目    Item            |                                         | CE                                                                 | UL       | c-UL                    |
|-----------------------|-----------------------------------------|--------------------------------------------------------------------|----------|-------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50011069                                                         | E 194236 | E 194236                |
|                       | 適応規格<br>Standard                        | VDE 0812                                                           | UL 758   | CSA C22.2 No.210        |
|                       | ケーブルデザイン<br>Cable designation           | LIYCY                                                              | 20276    | AWM I / II    Group A/B |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 350V Peak:0.14～0.5mm <sup>2</sup><br>500V Peak:0.75mm <sup>2</sup> | 30V      | 30V                     |
|                       | 耐電圧<br>Test voltage                     | 1200V/分                                                            | 500V/分   | 500V/分                  |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ·km (at 20℃)                                                  |          |                         |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                             | 80℃      | 105℃                    |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D    D=ケーブル外径/Overall diameter                                    |          |                         |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                         | VW-1     | FT1                     |
| 構造<br>Construction    | 導体<br>Conductor                         | UL 758                                                             |          |                         |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別2」参照<br>Heat resistant PVC/See core identification        |          |                         |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                             |          |                         |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                     |          |                         |

WORLD WIDE STANDARD CABLE    Millennium-Edition-Series

ケーブル構造    CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 9061 1001401        | 0.14mm <sup>2</sup> /26AWG                                  | 27/0.08<br>〈0.5mm〉                                         | 1.0                                     | 1P                      | 4.2                                      | 27                           | 175                                     | 3.6                                                                    |
| 9061 1001402        |                                                             |                                                            |                                         | 2P                      | 5.6                                      | 41                           |                                         | 2.7                                                                    |
| 9061 1001403        |                                                             |                                                            |                                         | 3P                      | 5.9                                      | 48                           |                                         | 2.3                                                                    |
| 9061 1001404        |                                                             |                                                            |                                         | 4P                      | 6.3                                      | 55                           |                                         | 2.0                                                                    |
| 9061 1001405        |                                                             |                                                            |                                         | 5P                      | 6.8                                      | 63                           |                                         | 1.9                                                                    |
| 9061 1001406        |                                                             |                                                            |                                         | 6P                      | 7.5                                      | 75                           |                                         | 1.8                                                                    |
| 9061 1001407        |                                                             |                                                            |                                         | 7P                      | 7.5                                      | 78                           |                                         | 1.6                                                                    |
| 9061 1001408        |                                                             |                                                            |                                         | 8P                      | 7.9                                      | 87                           |                                         | 1.5                                                                    |
| 9061 1001410        |                                                             |                                                            |                                         | 10P                     | 9.0                                      | 107                          |                                         | 1.4                                                                    |
| 9061 1001412        |                                                             |                                                            |                                         | 12P                     | 9.3                                      | 117                          |                                         | 1.3                                                                    |
| 9061 1001416        |                                                             |                                                            |                                         | 16P                     | 10.1                                     | 142                          |                                         | 1.2                                                                    |
| 9061 1001420        |                                                             |                                                            |                                         | 20P                     | 11.3                                     | 172                          |                                         | 1.1                                                                    |
| 9061 1002501        | 0.25mm <sup>2</sup> /24AWG                                  | 48/0.08<br>〈0.7mm〉                                         | 1.2                                     | 1P                      | 4.6                                      | 32                           | 98.4                                    | 5.2                                                                    |
| 9061 1002502        |                                                             |                                                            |                                         | 2P                      | 6.3                                      | 52                           |                                         | 3.9                                                                    |
| 9061 1002503        |                                                             |                                                            |                                         | 3P                      | 6.6                                      | 60                           |                                         | 3.2                                                                    |
| 9061 1002504        |                                                             |                                                            |                                         | 4P                      | 7.1                                      | 71                           |                                         | 2.9                                                                    |
| 9061 1002505        |                                                             |                                                            |                                         | 5P                      | 7.9                                      | 86                           |                                         | 2.7                                                                    |
| 9061 1002506        |                                                             |                                                            |                                         | 6P                      | 8.5                                      | 99                           |                                         | 2.6                                                                    |
| 9061 1002507        |                                                             |                                                            |                                         | 7P                      | 8.5                                      | 103                          |                                         | 2.3                                                                    |
| 9061 1002508        |                                                             |                                                            |                                         | 8P                      | 9.2                                      | 121                          |                                         | 2.2                                                                    |
| 9061 1002510        |                                                             |                                                            |                                         | 10P                     | 10.5                                     | 146                          |                                         | 2.0                                                                    |
| 9061 1002512        |                                                             |                                                            |                                         | 12P                     | 10.8                                     | 161                          |                                         | 1.9                                                                    |
| 9061 1002516        |                                                             |                                                            |                                         | 16P                     | 12.0                                     | 203                          |                                         | 1.7                                                                    |
| 9061 1002520        |                                                             |                                                            |                                         | 20P                     | 13.4                                     | 249                          |                                         | 1.5                                                                    |
| 9061 1003401        | 0.34mm <sup>2</sup> /22AWG                                  | 68/0.08<br>〈0.85mm〉                                        | 1.35                                    | 1P                      | 4.9                                      | 36                           | 69.3                                    | 6.0                                                                    |
| 9061 1003402        |                                                             |                                                            |                                         | 2P                      | 6.8                                      | 59                           |                                         | 4.5                                                                    |
| 9061 1003403        |                                                             |                                                            |                                         | 3P                      | 7.2                                      | 71                           |                                         | 3.8                                                                    |
| 9061 1003404        |                                                             |                                                            |                                         | 4P                      | 8.0                                      | 89                           |                                         | 3.4                                                                    |
| 9061 1003405        |                                                             |                                                            |                                         | 5P                      | 8.6                                      | 105                          |                                         | 3.1                                                                    |
| 9061 1003406        |                                                             |                                                            |                                         | 6P                      | 9.5                                      | 123                          |                                         | 3.0                                                                    |
| 9061 1003407        |                                                             |                                                            |                                         | 7P                      | 9.5                                      | 129                          |                                         | 2.7                                                                    |
| 9061 1003408        |                                                             |                                                            |                                         | 8P                      | 10.1                                     | 148                          |                                         | 2.6                                                                    |
| 9061 1003410        |                                                             |                                                            |                                         | 10P                     | 11.4                                     | 176                          |                                         | 2.3                                                                    |
| 9061 1003412        |                                                             |                                                            |                                         | 12P                     | 12.0                                     | 203                          |                                         | 2.2                                                                    |
| 9061 1003416        |                                                             |                                                            |                                         | 16P                     | 13.4                                     | 257                          |                                         | 1.9                                                                    |
| 9061 1003420        |                                                             |                                                            |                                         | 20P                     | 14.9                                     | 314                          |                                         | 1.8                                                                    |
| 9061 1005001        | 0.5mm <sup>2</sup> /21AWG                                   | 90/0.08<br>〈1.0mm〉                                         | 1.5                                     | 1P                      | 5.2                                      | 41                           | 49.2                                    | 8.1                                                                    |
| 9061 1005002        |                                                             |                                                            |                                         | 2P                      | 7.5                                      | 71                           |                                         | 6.0                                                                    |
| 9061 1005003        |                                                             |                                                            |                                         | 3P                      | 7.9                                      | 85                           |                                         | 5.1                                                                    |
| 9061 1005004        |                                                             |                                                            |                                         | 4P                      | 8.6                                      | 105                          |                                         | 4.5                                                                    |
| 9061 1005005        |                                                             |                                                            |                                         | 5P                      | 9.5                                      | 126                          |                                         | 4.2                                                                    |
| 9061 1005006        |                                                             |                                                            |                                         | 6P                      | 10.5                                     | 151                          |                                         | 4.1                                                                    |
| 9061 1005007        |                                                             |                                                            |                                         | 7P                      | 10.5                                     | 158                          |                                         | 3.7                                                                    |
| 9061 1005008        |                                                             |                                                            |                                         | 8P                      | 11.1                                     | 179                          |                                         | 3.5                                                                    |
| 9061 1005010        |                                                             |                                                            |                                         | 10P                     | 12.6                                     | 215                          |                                         | 3.1                                                                    |
| 9061 1007501        | 0.75mm <sup>2</sup> /19AWG                                  | 150/0.08<br>〈1.2mm〉                                        | 2.0                                     | 1P                      | 6.2                                      | 57                           | 32.8                                    | 10.1                                                                   |
| 9061 1007502        |                                                             |                                                            |                                         | 2P                      | 9.4                                      | 107                          |                                         | 7.6                                                                    |
| 9061 1007503        |                                                             |                                                            |                                         | 3P                      | 9.9                                      | 132                          |                                         | 6.3                                                                    |
| 9061 1007504        |                                                             |                                                            |                                         | 4P                      | 11.0                                     | 164                          |                                         | 5.7                                                                    |
| 9061 1007505        |                                                             |                                                            |                                         | 5P                      | 12.2                                     | 201                          |                                         | 5.3                                                                    |
| 9061 1007506        |                                                             |                                                            |                                         | 6P                      | 13.4                                     | 239                          |                                         | 5.1                                                                    |
| 9061 1007507        |                                                             |                                                            |                                         | 7P                      | 13.4                                     | 252                          |                                         | 4.6                                                                    |
| 9061 1007508        |                                                             |                                                            |                                         | 8P                      | 14.2                                     | 288                          |                                         | 4.3                                                                    |
| 9061 1007510        |                                                             |                                                            |                                         | 10P                     | 16.4                                     | 354                          |                                         | 3.9                                                                    |

●販売条長：153m    Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

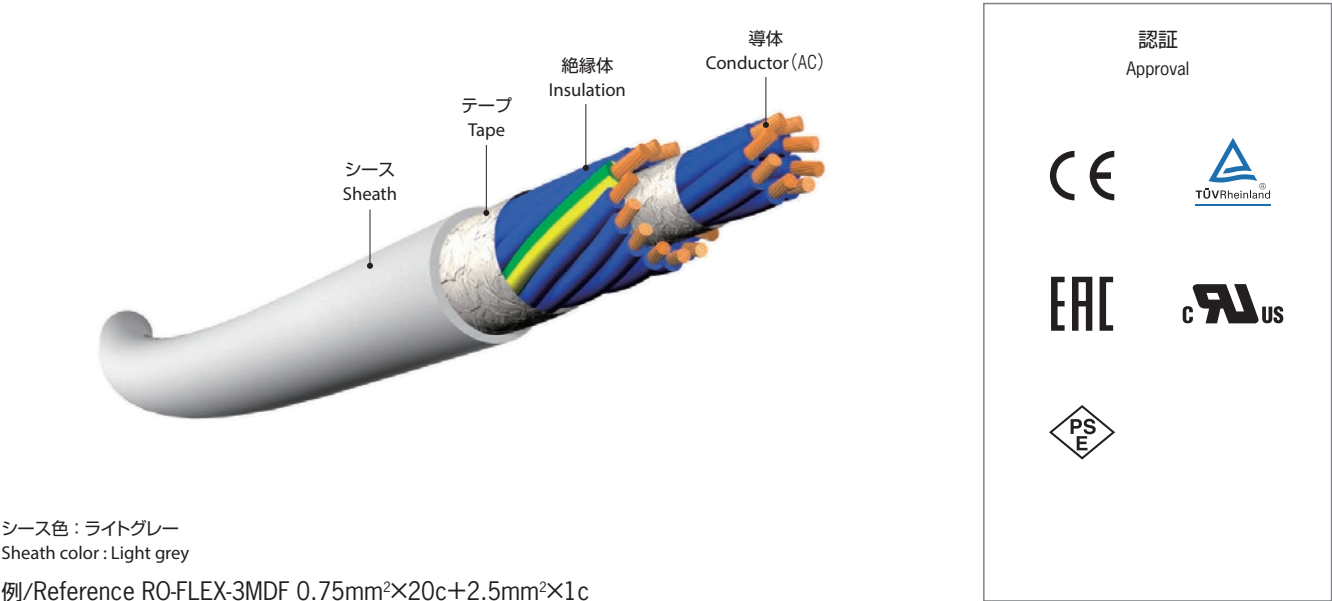
■温度減少係数    Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

RO-FLEX-3MDF

Robot cable. Especially Purpose for Auto Mobile Industry.

WORLD WIDE STANDARD CABLE  
Millennium-Edition-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-3MDF 0.75mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                                                  | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 青:DC制御回路<br>赤:AC制御回路<br>Blue:DC (Control)<br>Red:AC (Control) | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部  
2. 電源線  
3. 信号線

1. Constant movement  
2. Power line  
3. Signal line

特 長 Characteristics

CE, EAC, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX-3MDF series enable to simplify the design and efficient storage for the reduction of costs due to CE, EAC, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                             |                  | CE                                                                               | EAC                     | UL       | c-UL                  | PSE                           |
|-----------------------|---------------------------------------------|------------------|----------------------------------------------------------------------------------|-------------------------|----------|-----------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                  |                  | J 50498820                                                                       | RU C-JP.AR46.B.17404/20 | E 194236 | E 194236              | JD 60154183                   |
|                       | 適応規格<br>Standard                            |                  | EN 50525                                                                         | ГОСТ 24334-80           | UL 758   | CSA C22.2 No.210      | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation               |                  | A05V2V5-F                                                                        | ---                     | 2464     | AWM I/II<br>Group A/B | 〈PS〉E                         |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage               |                  | 300/500V                                                                         | 1000V                   | 300V     | 300V                  | 300/500V                      |
|                       | 耐電圧<br>Test voltage                         |                  | 2500V/5分                                                                         |                         |          |                       |                               |
|                       | 絶縁抵抗<br>Insulation resistance               |                  | 200MΩ・km(at 20℃)                                                                 |                         |          |                       |                               |
|                       | 使用温度<br>Temperature range                   |                  | 0℃～90℃                                                                           | 100℃                    | 80℃      | 105℃                  | 0℃～90℃                        |
|                       | 曲げ半径<br>Minimum bending for radius          |                  | 6D D=ケーブル外径/Overall diameter                                                     |                         |          |                       |                               |
|                       | 難燃性<br>Flame retardant                      |                  | EN 50265-2-1<br>(IEC 60332-1)                                                    | Fire Approval           | VW-1     | FT1                   | EN 50265-2-1<br>(IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                             |                  | IEC 60228 Class 6                                                                |                         | ASTM B 3 |                       | IEC 60228 Class 6             |
|                       | 絶縁/識別<br>Insulation/<br>Core identification | DCタイプ<br>DC Type | 耐熱PVC/青/ナンバリング白+緑/黄※<br>Heat resistant PVC/Blue core with white numbering +G/Y※  |                         |          |                       |                               |
|                       |                                             | ACタイプ<br>AC Type | 耐熱PVC/赤/ナンバリング白+緑/黄※<br>Heat resistant PVC/Red core with white numbering +G/Y※   |                         |          |                       |                               |
|                       | シース/シース色<br>Sheath/Sheath color             |                  | 耐油・耐熱PVC/ライトグレー(N7)<br>Oil and Heat resistant PVC/Light Grey(Mansel number : N7) |                         |          |                       |                               |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。 ※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

| ケーブル構造 CABLE CONSTRUCTION |                                                 |                                                          |                                         |                                     |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br><diameter><br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores/<br>pairs<br>芯/対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 3605 0007511              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 167/0.08 〈1.3〉<br>7/70/0.08 〈2.3〉                        | 2.3<br>3.3                              | 10c<br>1c                           | 12.7                                     | 219                          | 21.8<br>7.98                            | 5.5                                                                    |
| 3605 0007521              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 167/0.08 〈1.3〉<br>7/70/0.08 〈2.3〉                        | 2.3<br>3.3                              | 20c<br>1c                           | 17.1                                     | 393                          | 21.8<br>7.98                            | 4.4                                                                    |
| 3605 0007531              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 167/0.08 〈1.3〉<br>7/70/0.08 〈2.3〉                        | 2.3<br>3.3                              | 15P<br>1c                           | 21.0                                     | 572                          | 21.8<br>7.98                            | 3.3                                                                    |
| 3605 0007541              | 0.75mm²/18AWG<br>2.5mm² (G/Y)/14AWG             | 167/0.08 〈1.3〉<br>7/70/0.08 〈2.3〉                        | 2.3<br>3.3                              | 20P<br>1c                           | 23.9                                     | 746                          | 21.8<br>7.98                            | 3.3                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

WORLD WIDE STANDARD CABLE

# Listing-Series

リスティングシリーズ



北米向けに最適  
Especially for North American market.

NFPA 79, NFPA 70(NEC)適合  
Conformity to NFPA79, NFPA70.(NEC)

安全規格適合(CEマーキング, IEC, UL, c-UL(CSA), PSE)  
Conformity to safety standard.(CE-marking, IEC, UL, c-UL(CSA), PSE)



リスティングシリーズ製品一覧  
Listing-Series product list

| 製品名<br>Product name | 公称断面積<br>Nominal cross sectional area |                  | 電圧<br>Voltage (V)   |                     | 使用温度<br>Ambient temperature (℃) |              | 特性*<br>Characteristic* |                        |                 |                           |                           |                 | 環境<br>Environmental issue | Page No. |
|---------------------|---------------------------------------|------------------|---------------------|---------------------|---------------------------------|--------------|------------------------|------------------------|-----------------|---------------------------|---------------------------|-----------------|---------------------------|----------|
|                     | AWG                                   | mm <sup>2</sup>  | 北米<br>North America | 欧州<br>Europe        | 北米<br>North America             | 欧州<br>Europe | 耐油性<br>Oil resistance  | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐候性<br>Weather resistance | 耐ノイズ性<br>Noise resistance | アウトガス<br>Outgas | RoHS指令<br>RoHS Directive  |          |
| RO-FLEX 725T        | 26<br>24—20                           | 0.14<br>0.25—0.5 | 300                 | 350Peak<br>500Peak  | —15～+105                        | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 63       |
| RO-FLEX 725TS       | 26<br>24—20                           | 0.14<br>0.25—0.5 | 300                 | 350Peak<br>500Peak  | —15～+105                        | —15～+90      | A                      | B                      | B               | C                         | A                         | C               | 適合<br>Compliance          | 65       |
| RO-FLEX-CLT         | 20+14E                                | 0.5+2.5E         | 300                 | 300/500             | —15～+105                        | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 67       |
| RO-FLEX-CMT         | 18+14E                                | 0.75+2.5E        | 300                 | 300/500             | —15～+105                        | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 69       |
| RO-FLEX 7700T       | 18<br>16—2                            | —                | 600                 | 300/500<br>600/1000 | —15～+105                        | —15～+90      | A                      | B                      | B               | A                         | D                         | C               | 適合<br>Compliance          | 71       |
| RO-FLEX 7700TS      | 18<br>16—2                            | —                | 600                 | 300/500<br>600/1000 | —15～+105                        | —15～+90      | A                      | B                      | B               | A                         | B                         | C               | 適合<br>Compliance          | 73       |
| RO-FLEX 8000T       | 18<br>16—2                            | 1.0<br>1.5—35    | 600                 | 300/500<br>600/1000 | —15～+105                        | —15～+90      | A                      | B                      | B               | A                         | D                         | C               | 適合<br>Compliance          | 75       |
| RO-FLEX 8000TS      | 18<br>16—2                            | 1.0<br>1.5—35    | 600                 | 300/500<br>600/1000 | —15～+105                        | —15～+90      | A                      | B                      | B               | A                         | B                         | C               | 適合<br>Compliance          | 77       |
| RO-FLEX-TC-MTW-T    | 18+14E                                | 0.75+2.5E        | 600                 | 300/500             | —15～+105                        | —15～+90      | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 79       |
| RO-FLEX 800F        | 26<br>24—20                           | 0.14<br>0.25—0.5 | 300                 | 350Peak<br>500Peak  | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | C                         | C               | 適合<br>Compliance          | 81       |
| RO-FLEX 800FS       | 26<br>24—20                           | 0.14<br>0.25—0.5 | 300                 | 350Peak<br>500Peak  | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | A                         | C               | 適合<br>Compliance          | 83       |
| RO-FLEX-CMF         | 18+14E                                | 0.75+2.5E        | 300                 | 300/500             | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 85       |
| RO-FLEX 3300F-MTW   | 20—12                                 | 0.5—4.0          | 600                 | 300/500             | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 87       |
| RO-FLEX 3300FS-MTW  | 20—12                                 | 0.5—4.0          | 600                 | 300/500             | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | B                         | C               | 適合<br>Compliance          | 89       |
| RO-FLEX-6MDF-MTW    | 18+14E                                | 0.75+2.5E        | 600                 | 300/500             | 0～+105                          | 0～+90        | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 91       |

※特性 characteristic  
アウトガス Outgas P112  
耐熱性 Heat resistance P113  
耐油性 Oil resistance P114  
難燃性 Flame retardant P115  
耐屈曲性 Flexing P117  
耐ノイズ性 Noise resistance P119  
耐候性 Weather resistance P120

RO-FLEX 725T

Class2, Class3 Remote-Control, Signaling,  
and Power-Limited Circuit cable NEC Article 725.

北米市場/North American Market

リニューアル予定品  
2024年7月製作分より変更  
芯数ラインナップの変更有り  
詳細はトップページ案内文にて

認証  
Approval

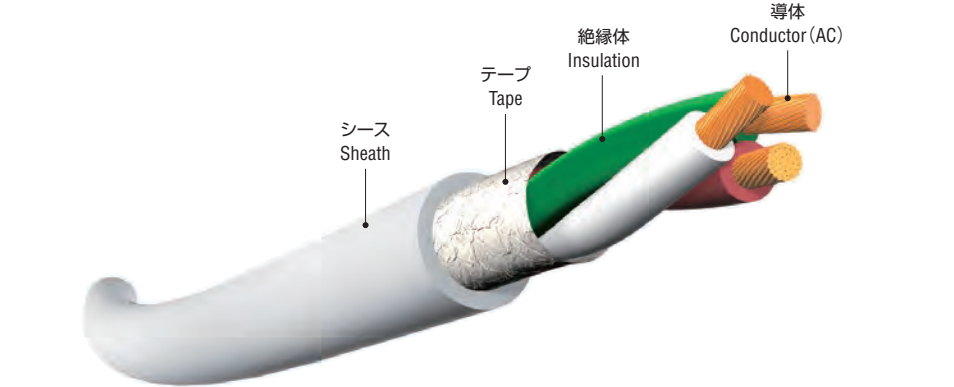
CE

c(UL)

TÜVRheinland

cULUS

UL



シース色：ライトグレー  
Sheath color：Light grey

例/Reference RO-FLEX 725T 0.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 信号線  
2. 通信線(ケーブルトレイ配線用)  
3. Class2回路など

1. Signal line  
2. Communication line for tray cable  
3. Power-limited circuits (Class2)

特 長 Characteristics

UL, c-UL, NFPA, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX 725T series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA and CE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                        | (UL)     | UL       | c(UL)                        | c-UL                  | CE                                                                 |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|----------|------------------------------|-----------------------|--------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 314378                                                    | E 308483 | E 194236 | E 308483                     | E 194236              | J 50010985                                                         |
|                       | 適応規格<br>Standard                        | UL 13                                                       | UL 444   | UL 758   | CSA C22.2<br>No.214          | CSA C22.2<br>No.210   | VDE 0812                                                           |
|                       | ケーブルデザイン<br>Cable designation           | CL3                                                         | CM       | 2464     | CM                           | AWM I/II<br>Group A/B | LIYY                                                               |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 300V                                                        | 300V     | 300V     | 300V                         | 300V                  | 350V peak:0.14mm <sup>2</sup><br>500V peak:0.25~0.5mm <sup>2</sup> |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |          |                              |                       |                                                                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |          |                              |                       |                                                                    |
|                       | 使用温度<br>Temperature range               | 90℃                                                         | 90℃      | 80℃      | 90℃                          | 105℃                  | −15℃~90℃                                                           |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |          |                              |                       |                                                                    |
|                       | 難燃性<br>Flame retardant                  | VW-1 for CT use (UL 1685)                                   |          | VW-1     | VW-1 for CT use<br>(UL 1685) |                       | FT1                                                                |
| 構造<br>Construction    | 導体<br>Conductor                         | ASTM B 3                                                    |          |          |                              |                       | IEC 60228 Class 5                                                  |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別1」参照<br>Heat resistant PVC/See core identification |          |          |                              |                       |                                                                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey    |          |          |                              |                       |                                                                    |

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
|---------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 7250 0001402        | 0.14mm <sup>2</sup> /26AWG                               | 7/0.16<br>(0.5mm)                                       | 1.1                                  | 2c                      | 3.9                                   | 17                           | 132                                  | 3.6                                                                 |
| 7250 0001403        |                                                          |                                                         |                                      | 3c                      | 4.1                                   | 20                           |                                      | 3.1                                                                 |
| 7250 0001404        |                                                          |                                                         |                                      | 4c                      | 4.4                                   | 24                           |                                      | 2.7                                                                 |
| 7250 0001405        |                                                          |                                                         |                                      | 5c                      | 4.7                                   | 28                           |                                      | 2.4                                                                 |
| 7250 0001406        |                                                          |                                                         |                                      | 6c                      | 5.0                                   | 31                           |                                      | 2.3                                                                 |
| 7250 0001407        |                                                          |                                                         |                                      | 7c                      | 5.4                                   | 36                           |                                      | 2.1                                                                 |
| 7250 0001408        |                                                          |                                                         |                                      | 8c                      | 5.7                                   | 40                           |                                      | 2.0                                                                 |
| 7250 0001410        |                                                          |                                                         |                                      | 10c                     | 6.1                                   | 45                           |                                      | 1.9                                                                 |
| 7250 0001412        |                                                          |                                                         |                                      | 12c                     | 6.3                                   | 50                           |                                      | 1.8                                                                 |
| 7250 0001416        |                                                          |                                                         |                                      | 16c                     | 6.9                                   | 62                           |                                      | 1.5                                                                 |
| 7250 0001418        |                                                          |                                                         |                                      | 18c                     | 7.2                                   | 68                           |                                      | 1.4                                                                 |
| 7250 0001420        |                                                          |                                                         |                                      | 20c                     | 7.8                                   | 79                           |                                      | 1.4                                                                 |
| 7250 0001425        |                                                          |                                                         |                                      | 25c                     | 8.6                                   | 93                           |                                      | 1.3                                                                 |
| 7250 0001430        |                                                          |                                                         |                                      | 30c                     | 9.3                                   | 112                          |                                      | 1.2                                                                 |
| 7250 0001440        |                                                          |                                                         |                                      | 40c                     | 10.8                                  | 148                          |                                      | 1.1                                                                 |
| 7250 0002502        | 0.25mm <sup>2</sup> /24AWG                               | 14/0.15<br>(0.65mm)                                     | 1.45                                 | 2c                      | 4.6                                   | 24                           | 75.4                                 | 5.2                                                                 |
| 7250 0002503        |                                                          |                                                         |                                      | 3c                      | 4.8                                   | 28                           |                                      | 4.4                                                                 |
| 7250 0002504        |                                                          |                                                         |                                      | 4c                      | 5.2                                   | 34                           |                                      | 3.9                                                                 |
| 7250 0002505        |                                                          |                                                         |                                      | 5c                      | 5.6                                   | 40                           |                                      | 3.5                                                                 |
| 7250 0002506        |                                                          |                                                         |                                      | 6c                      | 6.1                                   | 47                           |                                      | 3.2                                                                 |
| 7250 0002507        |                                                          |                                                         |                                      | 7c                      | 6.6                                   | 54                           |                                      | 3.0                                                                 |
| 7250 0002508        |                                                          |                                                         |                                      | 8c                      | 7.0                                   | 60                           |                                      | 2.9                                                                 |
| 7250 0002510        |                                                          |                                                         |                                      | 10c                     | 7.7                                   | 72                           |                                      | 2.7                                                                 |
| 7250 0002512        |                                                          |                                                         |                                      | 12c                     | 7.9                                   | 80                           |                                      | 2.6                                                                 |
| 7250 0002516        |                                                          |                                                         |                                      | 16c                     | 8.9                                   | 105                          |                                      | 2.2                                                                 |
| 7250 0002518        |                                                          |                                                         |                                      | 18c                     | 9.4                                   | 117                          |                                      | 2.1                                                                 |
| 7250 0002520        |                                                          |                                                         |                                      | 20c                     | 9.8                                   | 127                          |                                      | 2.0                                                                 |
| 7250 0002525        |                                                          |                                                         |                                      | 25c                     | 11.1                                  | 158                          |                                      | 1.9                                                                 |
| 7250 0002530        |                                                          |                                                         |                                      | 30c                     | 11.9                                  | 187                          |                                      | 1.7                                                                 |
| 7250 0002540        |                                                          |                                                         |                                      | 40c                     | 13.9                                  | 249                          |                                      | 1.5                                                                 |
| 7250 0003402        | 0.34mm <sup>2</sup> /22AWG                               | 19/0.15<br>(0.8mm)                                      | 1.6                                  | 2c                      | 4.9                                   | 27                           | 55.4                                 | 6.0                                                                 |
| 7250 0003403        |                                                          |                                                         |                                      | 3c                      | 5.2                                   | 33                           |                                      | 5.1                                                                 |
| 7250 0003404        |                                                          |                                                         |                                      | 4c                      | 5.6                                   | 40                           |                                      | 4.5                                                                 |
| 7250 0003405        |                                                          |                                                         |                                      | 5c                      | 6.0                                   | 47                           |                                      | 4.1                                                                 |
| 7250 0003406        |                                                          |                                                         |                                      | 6c                      | 6.5                                   | 55                           |                                      | 3.8                                                                 |
| 7250 0003407        |                                                          |                                                         |                                      | 7c                      | 7.1                                   | 64                           |                                      | 3.5                                                                 |
| 7250 0003408        |                                                          |                                                         |                                      | 8c                      | 7.8                                   | 75                           |                                      | 3.4                                                                 |
| 7250 0003410        |                                                          |                                                         |                                      | 10c                     | 8.3                                   | 85                           |                                      | 3.1                                                                 |
| 7250 0003412        |                                                          |                                                         |                                      | 12c                     | 8.6                                   | 97                           |                                      | 3.0                                                                 |
| 7250 0003416        |                                                          |                                                         |                                      | 16c                     | 9.6                                   | 126                          |                                      | 2.6                                                                 |
| 7250 0003418        |                                                          |                                                         |                                      | 18c                     | 10.1                                  | 140                          |                                      | 2.4                                                                 |
| 7250 0003420        |                                                          |                                                         |                                      | 20c                     | 10.8                                  | 159                          |                                      | 2.3                                                                 |
| 7250 0003425        |                                                          |                                                         |                                      | 25c                     | 12.2                                  | 195                          |                                      | 2.2                                                                 |
| 7250 0003430        |                                                          |                                                         |                                      | 30c                     | 12.9                                  | 226                          |                                      | 2.0                                                                 |
| 7250 0003440        |                                                          |                                                         |                                      | 40c                     | 15.3                                  | 307                          |                                      | 1.8                                                                 |
| 7250 0005002        | 0.5mm <sup>2</sup> /20AWG                                | 21/0.18<br>(0.95mm)                                     | 1.75                                 | 2c                      | 5.2                                   | 32                           | 34.6                                 | 8.1                                                                 |
| 7250 0005003        |                                                          |                                                         |                                      | 3c                      | 5.5                                   | 41                           |                                      | 6.9                                                                 |
| 7250 0005004        |                                                          |                                                         |                                      | 4c                      | 5.9                                   | 50                           |                                      | 6.0                                                                 |
| 7250 0005005        |                                                          |                                                         |                                      | 5c                      | 6.4                                   | 59                           |                                      | 5.5                                                                 |
| 7250 0005006        |                                                          |                                                         |                                      | 6c                      | 7.0                                   | 70                           |                                      | 5.1                                                                 |
| 7250 0005007        |                                                          |                                                         |                                      | 7c                      | 7.8                                   | 84                           |                                      | 4.8                                                                 |
| 7250 0005008        |                                                          |                                                         |                                      | 8c                      | 8.3                                   | 95                           |                                      | 4.5                                                                 |
| 7250 0005010        |                                                          |                                                         |                                      | 10c                     | 9.1                                   | 113                          |                                      | 4.2                                                                 |
| 7250 0005012        |                                                          |                                                         |                                      | 12c                     | 9.4                                   | 129                          |                                      | 4.1                                                                 |
| 7250 0005016        |                                                          |                                                         |                                      | 16c                     | 10.5                                  | 168                          |                                      | 3.5                                                                 |
| 7250 0005018        |                                                          |                                                         |                                      | 18c                     | 11.1                                  | 187                          |                                      | 3.2                                                                 |
| 7250 0005020        |                                                          |                                                         |                                      | 20c                     | 11.8                                  | 211                          |                                      | 3.1                                                                 |
| 7250 0005025        |                                                          |                                                         |                                      | 25c                     | 13.3                                  | 259                          |                                      | 2.9                                                                 |
| 7250 0005030        |                                                          |                                                         |                                      | 30c                     | 14.0                                  | 300                          |                                      | 2.7                                                                 |
| 7250 0005040        |                                                          |                                                         |                                      | 40c                     | 16.6                                  | 407                          |                                      | 2.4                                                                 |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

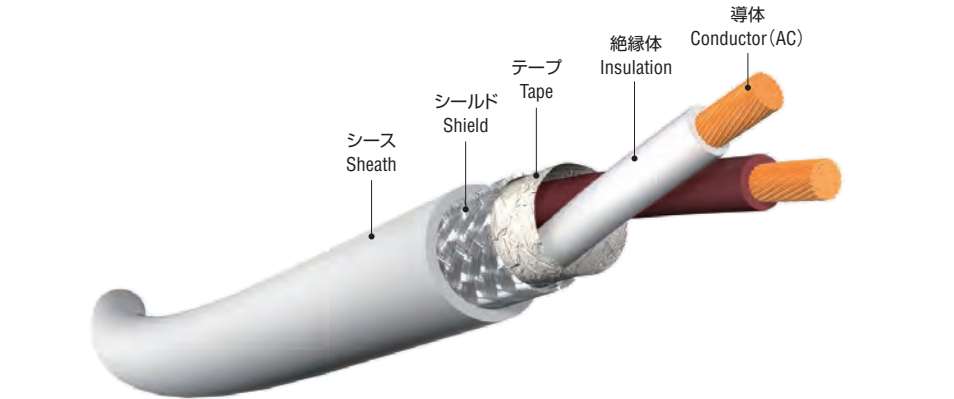
| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX 725TS

Class2, Class3 Remote-Control, Signaling,  
and Power-Limited Circuit cable NEC Article 725.

北米市場/North American Market EMC対策/To keep the EMC



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 725TS 0.5mm²×1P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | A                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 信号線  
2. 通信線(ケーブルトレイ配線用)  
3. Class2回路など  
4. 耐ノイズ環境

1. Signal line  
2. Communication line for tray cable  
3. Power-limited circuits (Class2)  
4. Noise resistance

## 特 長 Characteristics

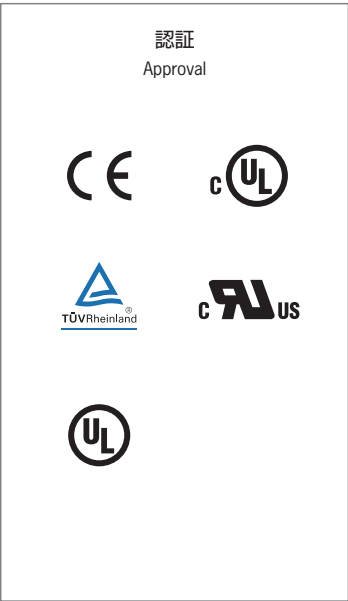
UL, c-UL, NFPA, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。  
又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。  
このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 725TS series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA and CE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
\*Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                        | (UL)     | UL       | c(UL)                     | c-UL               | CE                                         |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|----------|---------------------------|--------------------|--------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 314378                                                    | E 308483 | E 194236 | E 308483                  | E 194236           | J 50011069                                 |
|                       | 適応規格<br>Standard                        | UL 13                                                       | UL 444   | UL 758   | CSA C22.2 No.214          | CSA C22.2 No.210   | VDE 0812                                   |
|                       | ケーブルデザイン<br>Cable designation           | CL3                                                         | CM       | 2464     | CM                        | AWM I/II Group A/B | LIYCY                                      |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 300V                                                        | 300V     | 300V     | 300V                      | 300V               | 350V peak:0.14mm²<br>500V peak:0.25~0.5mm² |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |          |                           |                    |                                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MQ・km (at 20℃)                                           |          |          |                           |                    |                                            |
|                       | 使用温度<br>Temperature range               | 90℃                                                         | 90℃      | 80℃      | 90℃                       | 105℃               | −15℃~90℃                                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |          |                           |                    |                                            |
|                       | 難燃性<br>Flame retardant                  | VW-1 for CT use (UL 1685)                                   |          | VW-1     | VW-1 for CT use (UL 1685) | FT1                | EN 50265-2-1 (IEC 60332-1)                 |
| 構造<br>Construction    | 導体<br>Conductor                         | ASTM B 3                                                    |          |          |                           |                    | IEC 60228 Class 5                          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別2」参照<br>Heat resistant PVC/See core identification |          |          |                           |                    |                                            |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                      |          |          |                           |                    |                                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey    |          |          |                           |                    |                                            |

リニューアル予定品  
2024年7月製作分より変更  
対数ラインナップの変更有り  
詳細はトップページ案内文にて



| ケーブル構造 CABLE CONSTRUCTION |                                              |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm² | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 7251 1001401              | 0.14mm²/26AWG                                | 7/0.16<br>(0.5mm)                                       | 1.1                                  | 1P                      | 4.4                                   | 28                           | 132                                  | 3.6                                                                 |
| 7251 1001402              |                                              |                                                         |                                      | 2P                      | 5.9                                   | 45                           |                                      | 2.7                                                                 |
| 7251 1001403              |                                              |                                                         |                                      | 3P                      | 6.2                                   | 51                           |                                      | 2.3                                                                 |
| 7251 1001404              |                                              |                                                         |                                      | 4P                      | 6.7                                   | 60                           |                                      | 2.0                                                                 |
| 7251 1001405              |                                              |                                                         |                                      | 5P                      | 7.2                                   | 69                           |                                      | 1.9                                                                 |
| 7251 1001406              |                                              |                                                         |                                      | 6P                      | 8.0                                   | 83                           |                                      | 1.8                                                                 |
| 7251 1001407              |                                              |                                                         |                                      | 7P                      | 8.0                                   | 86                           |                                      | 1.6                                                                 |
| 7251 1001408              |                                              |                                                         |                                      | 8P                      | 8.5                                   | 97                           |                                      | 1.5                                                                 |
| 7251 1001410              |                                              |                                                         |                                      | 10P                     | 9.6                                   | 116                          |                                      | 1.4                                                                 |
| 7251 1001412              |                                              |                                                         |                                      | 12P                     | 9.9                                   | 129                          |                                      | 1.3                                                                 |
| 7251 1001416              |                                              |                                                         |                                      | 16P                     | 11.1                                  | 162                          |                                      | 1.2                                                                 |
| 7251 1001420              |                                              |                                                         |                                      | 20P                     | 12.5                                  | 199                          |                                      | 1.1                                                                 |
| 7251 1002501              | 0.25mm²/24AWG                                | 14/0.15<br>(0.65mm)                                     | 1.45                                 | 1P                      | 5.1                                   | 37                           | 75.4                                 | 5.2                                                                 |
| 7251 1002502              |                                              |                                                         |                                      | 2P                      | 7.1                                   | 61                           |                                      | 3.9                                                                 |
| 7251 1002503              |                                              |                                                         |                                      | 3P                      | 7.7                                   | 75                           |                                      | 3.2                                                                 |
| 7251 1002504              |                                              |                                                         |                                      | 4P                      | 8.4                                   | 89                           |                                      | 2.9                                                                 |
| 7251 1002505              |                                              |                                                         |                                      | 5P                      | 9.3                                   | 110                          |                                      | 2.7                                                                 |
| 7251 1002506              |                                              |                                                         |                                      | 6P                      | 10.0                                  | 127                          |                                      | 2.6                                                                 |
| 7251 1002507              |                                              |                                                         |                                      | 7P                      | 10.0                                  | 131                          |                                      | 2.3                                                                 |
| 7251 1002508              |                                              |                                                         |                                      | 8P                      | 10.8                                  | 153                          |                                      | 2.2                                                                 |
| 7251 1002510              |                                              |                                                         |                                      | 10P                     | 12.3                                  | 183                          |                                      | 2.0                                                                 |
| 7251 1002512              |                                              |                                                         |                                      | 12P                     | 12.7                                  | 203                          |                                      | 1.9                                                                 |
| 7251 1002516              |                                              |                                                         |                                      | 16P                     | 14.1                                  | 257                          |                                      | 1.7                                                                 |
| 7251 1002520              |                                              |                                                         |                                      | 20P                     | 15.9                                  | 317                          |                                      | 1.5                                                                 |
| 7251 1003401              | 0.34mm²/22AWG                                | 19/0.15<br>(0.8mm)                                      | 1.6                                  | 1P                      | 5.4                                   | 42                           | 55.4                                 | 6.0                                                                 |
| 7251 1003402              |                                              |                                                         |                                      | 2P                      | 7.8                                   | 72                           |                                      | 4.5                                                                 |
| 7251 1003403              |                                              |                                                         |                                      | 3P                      | 8.3                                   | 87                           |                                      | 3.8                                                                 |
| 7251 1003404              |                                              |                                                         |                                      | 4P                      | 9.2                                   | 109                          |                                      | 3.4                                                                 |
| 7251 1003405              |                                              |                                                         |                                      | 5P                      | 9.9                                   | 128                          |                                      | 3.1                                                                 |
| 7251 1003406              |                                              |                                                         |                                      | 6P                      | 11.0                                  | 151                          |                                      | 3.0                                                                 |
| 7251 1003407              |                                              |                                                         |                                      | 7P                      | 11.0                                  | 157                          |                                      | 2.7                                                                 |
| 7251 1003408              |                                              |                                                         |                                      | 8P                      | 11.8                                  | 184                          |                                      | 2.6                                                                 |
| 7251 1003410              |                                              |                                                         |                                      | 10P                     | 13.5                                  | 221                          |                                      | 2.3                                                                 |
| 7251 1003412              |                                              |                                                         |                                      | 12P                     | 13.9                                  | 245                          |                                      | 2.2                                                                 |
| 7251 1003416              |                                              |                                                         |                                      | 16P                     | 15.5                                  | 311                          |                                      | 1.9                                                                 |
| 7251 1003420              |                                              |                                                         |                                      | 20P                     | 17.3                                  | 382                          |                                      | 1.8                                                                 |
| 7251 1005001              | 0.5mm²/20AWG                                 | 21/0.18<br>(0.95mm)                                     | 1.75                                 | 1P                      | 5.7                                   | 48                           | 34.6                                 | 8.1                                                                 |
| 7251 1005002              |                                              |                                                         |                                      | 2P                      | 8.4                                   | 85                           |                                      | 6.0                                                                 |
| 7251 1005003              |                                              |                                                         |                                      | 3P                      | 9.0                                   | 109                          |                                      | 5.1                                                                 |
| 7251 1005004              |                                              |                                                         |                                      | 4P                      | 9.8                                   | 132                          |                                      | 4.5                                                                 |
| 7251 1005005              |                                              |                                                         |                                      | 5P                      | 10.8                                  | 158                          |                                      | 4.2                                                                 |
| 7251 1005006              |                                              |                                                         |                                      | 6P                      | 11.9                                  | 189                          |                                      | 4.1                                                                 |
| 7251 1005007              |                                              |                                                         |                                      | 7P                      | 11.9                                  | 198                          |                                      | 3.7                                                                 |
| 7251 1005008              |                                              |                                                         |                                      | 8P                      | 12.7                                  | 228                          |                                      | 3.5                                                                 |
| 7251 1005010              |                                              |                                                         |                                      | 10P                     | 14.7                                  | 281                          |                                      | 3.1                                                                 |
| 7251 1005012              |                                              |                                                         |                                      | 12P                     | 15.1                                  | 313                          |                                      | 2.9                                                                 |
| 7251 1005016              |                                              |                                                         |                                      | 16P                     | 16.9                                  | 400                          |                                      | 2.6                                                                 |
| 7251 1005020              |                                              |                                                         |                                      | 20P                     | 18.8                                  | 492                          |                                      | 2.4                                                                 |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

### ■温度減少係数 Temperature Correction Factor

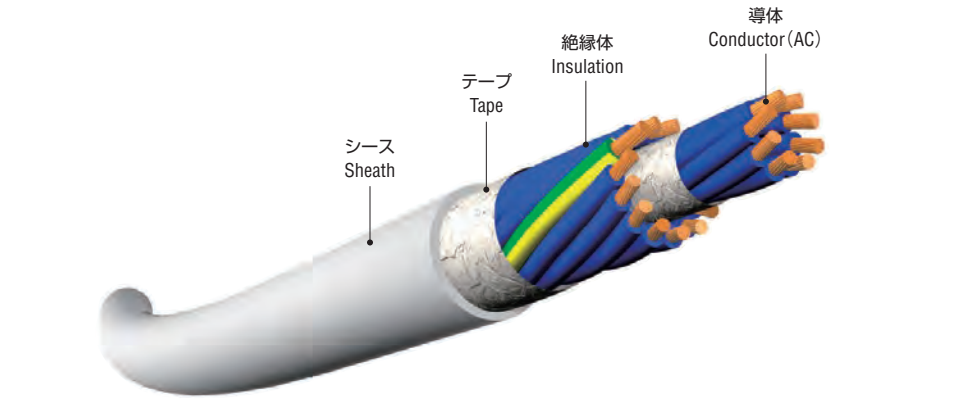
| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX-CLT

For fixed installation. Especially Purpose for Auto Mobile Industry.  
Class2, Class3 Remote-Control and Power-Limited Circuites cable NEC Article 725.

## 北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-CLT 0.5mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring             | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|--------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 電源線<br>機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 信号線(ケーブルトレイ配線用)  
2. Class2回路

1. Signal line for tray cable  
2. Power-limited circuits (Class2)

### 特 長 Characteristics

UL, c-UL, NFPA, EAC, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX-CLT series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA, EAC and CE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
"Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                          | CE                                                                               | (UL)                         | UL       | c-UL                  | EAC                     |
|-----------------------|------------------------------------------|----------------------------------------------------------------------------------|------------------------------|----------|-----------------------|-------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number               | P 14219014                                                                       | E 314378                     | E 194236 | E 194236              | RU C-JP.AR46.B.17404/20 |
|                       | 適応規格<br>Standard                         | EN 50525                                                                         | UL 13                        | UL 758   | CSA C22.2 No.210      | ГОСТ 24334-80           |
|                       | ケーブルデザイン<br>Cable designation            | A05V2V5-F                                                                        | CL3                          | 2464     | AWM I/II<br>Group A/B | ---                     |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage           | 300/500V                                                                         | 300V                         | 300V     | 300V                  | 1000V                   |
|                       | 耐電圧<br>Test voltage                      | 2500V/5分                                                                         |                              |          |                       |                         |
|                       | 絶縁抵抗<br>Insulation resistance            | 200MΩ・km (at 20℃)                                                                |                              |          |                       |                         |
|                       | 使用温度<br>Temperature range                | −15℃〜90℃                                                                         | 90 ℃                         | 80 ℃     | 105℃                  | 100℃                    |
|                       | 曲げ半径<br>Minimum bending for radius       | 6D D=ケーブル外径/Overall diameter                                                     |                              |          |                       |                         |
| 構造<br>Construction    | 難燃性<br>Flame retardant                   | EN 50265-2-1<br>(IEC 60332-1)                                                    | VW-1 for CT use<br>(UL 1685) | VW-1     | FT1                   | Fire Approval           |
|                       | 導体<br>Conductor                          | IEC 60228 Class 5                                                                | ASTM B 3                     |          |                       | IEC 60228 Class 5       |
|                       | 絶縁/識別<br>Insulation/ Core identification | 耐熱PVC/青/ナンバリング白+緑/黄※<br>Heat resistant PVC/Blue core with white numbering + G/Y※ |                              |          |                       |                         |
|                       | シース/シース色<br>Sheath/Sheath color          | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey                         |                              |          |                       |                         |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。  
※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

WORLD WIDE STANDARD CABLE

Listing-Series

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 7670 0005011        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 10c<br>1c               | 11.1                                     | 163                          | 34.6<br>7.98                            | 4.2                                                                    |
| 7670 0005013        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 12c<br>1c               | 12.0                                     | 189                          | 34.6<br>7.98                            | 4.1                                                                    |
| 7670 0005021        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 20c<br>1c               | 14.9                                     | 286                          | 34.6<br>7.98                            | 3.1                                                                    |
| 7670 0005025        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 24c<br>1c               | 15.7                                     | 321                          | 34.6<br>7.98                            | 2.9                                                                    |
| 7670 0005031        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 30c<br>1c               | 17.2                                     | 388                          | 34.6<br>7.98                            | 2.7                                                                    |
| 7670 0005041        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 40c<br>1c               | 19.5                                     | 504                          | 34.6<br>7.98                            | 2.4                                                                    |
| 7670 0005043        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 42c<br>1c               | 20.2                                     | 529                          | 34.6<br>7.98                            | 2.4                                                                    |
| 7670 0005051        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 50c<br>1c               | 21.1                                     | 604                          | 34.6<br>7.98                            | 2.2                                                                    |
| 7670 0005060        | 0.5mm <sup>2</sup> /20AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 21/0.18 <0.95><br>93/0.18 <1.9>                            | 1.95<br>2.9                             | 59c<br>1c               | 22.8                                     | 704                          | 34.6<br>7.98                            | 1.9                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

#### ■温度減少係数 Temperature Correction Factor

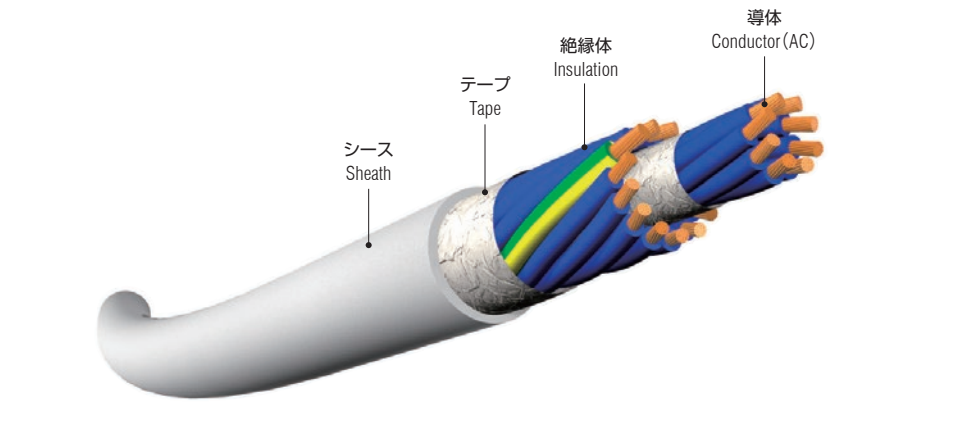
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX-CMT

For fixed installation. Especially Purpose for Auto Mobile Industry.  
Class2 and Class3 Power-Limited Circuits cable NEC Article 722, 725.

## 北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-CMT 0.75mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 信号線  
2. 通信線(ケーブルトレイ配線用)  
3. Class2回路など

1. Signal line  
2. Communication line for tray cable  
3. Power-limited circuits (Class2)

### 特 長 Characteristics

UL, c-UL, NFPA, EAC, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適用しています。

RO-FLEX-CMT series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA, EAC and CE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
\*Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                                             | (UL)     | UL       | c(UL)                        | c-UL                  | CE                                                                                  | EAC                         |
|-----------------------|-----------------------------------------|----------------------------------------------------------------------------------|----------|----------|------------------------------|-----------------------|-------------------------------------------------------------------------------------|-----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 314378                                                                         | E 308483 | E 194236 | E 308483                     | E 194236              | J 50498820                                                                          | RU C-JP.AA46.<br>B.17404/20 |
|                       | 適応規格<br>Standard                        | UL 13                                                                            | UL 444   | UL 758   | CSA C22.2<br>No.214          | CSA C22.2<br>No.210   | EN 50525                                                                            | ГОСТ 24334-80               |
|                       | ケーブルデザイン<br>Cable designation           | CL3                                                                              | CM       | 2464     | CM                           | AWM I/II<br>Group A/B | A05V2V5-F                                                                           | ---                         |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300V                                                                             | 300V     | 300V     | 300V                         | 300V                  | 300/500V                                                                            | 1000V                       |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                         |          |          |                              |                       |                                                                                     |                             |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                |          |          |                              |                       |                                                                                     |                             |
|                       | 使用温度<br>Temperature range               | 90℃                                                                              | 90℃      | 80℃      | 90℃                          | 105℃                  | −15℃〜90℃                                                                            | 100℃                        |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                     |          |          |                              |                       |                                                                                     |                             |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | VW-1 for CT use (UL 1685)                                                        |          | VW-1     | VW-1 for CT use<br>(UL 1685) | FT1                   | EN 50265-2-1<br>(IEC 60332-1)                                                       | Fire Approval               |
|                       | 導体<br>Conductor                         | ASTM B 3                                                                         |          |          |                              |                       | IEC 60228 Class 5                                                                   |                             |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/青/ナニバリング白+緑/黄※<br>Heat resistant PVC/Blue core with white numbering + G/Y※ |          |          |                              |                       | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |                             |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey                         |          |          |                              |                       |                                                                                     |                             |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

WORLD WIDE STANDARD CABLE

Listing-Series

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/外径<br>Conductor<br>composition/<br><diameter><br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 7600 0007502        | 0.75mm²/18AWG                                   | 33/0.18<1.1>                                             | 2.1                                     | 2c                      | 5.9                                      | 43                           | 21.8                                    | 8.8                                                                    |
| 7600 0007503        | 0.75mm²/18AWG                                   | 33/0.18<1.1>                                             | 2.1                                     | 3c                      | 6.2                                      | 56                           | 21.8                                    | 7.7                                                                    |
| 7600 0007504        | 0.75mm²/18AWG                                   | 33/0.18<1.1>                                             | 2.1                                     | 4c                      | 6.8                                      | 70                           | 21.8                                    | 7.2                                                                    |
| 7610 0007503        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 2c<br>1c                | 6.9                                      | 78                           | 21.8<br>7.98                            | 8.8                                                                    |
| 7610 0007504        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 3c<br>1c                | 7.5                                      | 95                           | 21.8<br>7.98                            | 7.7                                                                    |
| 7610 0007505        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 4c<br>1c                | 8.1                                      | 107                          | 21.8<br>7.98                            | 7.2                                                                    |
| 7610 0007508        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 7c<br>1c                | 10.4                                     | 165                          | 21.8<br>7.98                            | 6.1                                                                    |
| 7610 0007511        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 10c<br>1c               | 11.5                                     | 200                          | 21.8<br>7.98                            | 5.5                                                                    |
| 7610 0007513        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 12c<br>1c               | 12.6                                     | 235                          | 21.8<br>7.98                            | 5.0                                                                    |
| 7610 0007521        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 20c<br>1c               | 15.6                                     | 363                          | 21.8<br>7.98                            | 4.4                                                                    |
| 7610 0007525        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 24c<br>1c               | 16.6                                     | 417                          | 21.8<br>7.98                            | 3.3                                                                    |
| 7610 0007541        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 40c<br>1c               | 20.7                                     | 663                          | 21.8<br>7.98                            | 3.3                                                                    |
| 7610 0007543        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 42c<br>1c               | 21.4                                     | 695                          | 21.8<br>7.98                            | 3.3                                                                    |
| 7610 0007551        | 0.75mm²/18AWG<br>2.5mm²(G/Y)/14AWG              | 33/0.18<1.1><br>93/0.18<1.9>                             | 2.1<br>2.9                              | 50c<br>1c               | 22.5                                     | 800                          | 21.8<br>7.98                            | 3.3                                                                    |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

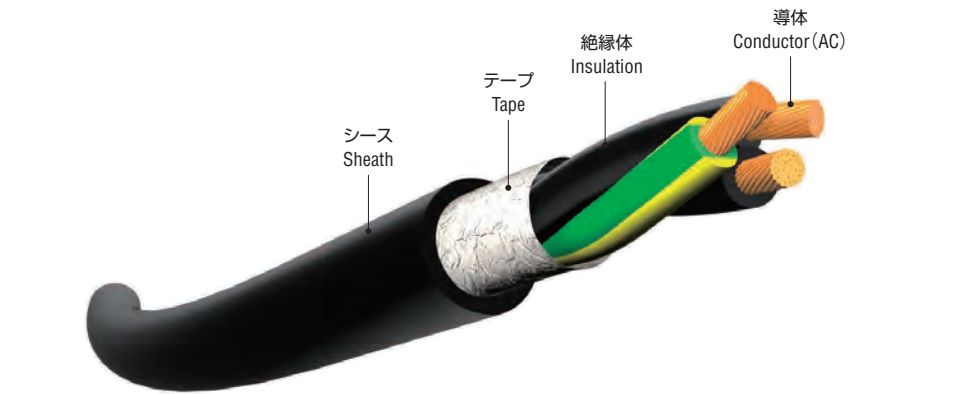
|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX 7700T

Tray Cable NEC Article 340, Hard Service Cord and High Voltage Cables.  
Especially Purpose For NFPA 79 & NFPA 70.

## 北米市場/North American Market



シース色：黒/ライトグレー(特注品)  
Sheath color : Black / Light grey (Customize)

例/Reference RO-FLEX 7700T 12AWG×3c

| ケーブル特性※ <sup>1</sup><br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|-----------------------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                                     | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 機器外部配線  
2. 電源線(ケーブルトレイ配線用)

1. External wiring  
2. Power line for tray cable

### 特 長 Characteristics

CE, IEC, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX 7700T series enable to simplify the design and efficient storage for the reduction of costs due to CE, IEC, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU(“Low voltage directive”).  
\*Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                            | (UL)     |                  |                             | c(UL)              |                     | UL       | c-UL                  | PSE                  |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|-----------------------------|--------------------|---------------------|----------|-----------------------|----------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50209450 :18AWG<br>J 50328090:16～2AWG                                                                                                       | E 194237 | E 209359         | E 207230                    | E 194237           | E 207230            | E 194236 | E 194236              | JCT                  |
|                       | 適応規格<br>Standard                        | EN 50525:18AWG<br>IEC 60502-1:16～2AWG                                                                                                         | UL 62    | UL 1063          | UL 1277                     | CSA-C22.2<br>No.49 | CSA-C22.2<br>No.239 | UL 758   | CSA C22.2<br>No.210   | 電気用品安全法<br>Denan law |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F:18AWG<br>A1V2V5-F:16～2AWG                                                                                                           | STO      | MTW              | TC-ER                       | STO                | CIC                 | 2501     | AWM I/II<br>Group A/B | 〈PS〉E                |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V:18AWG<br>600/1000V:16～2AWG                                                                                                           | 600V     |                  |                             | 600V               | 600V                | 600V     | 600V                  | 600V                 |
|                       | 耐電圧<br>Test voltage                     | 3500V/5分                                                                                                                                      |          |                  |                             |                    |                     |          |                       |                      |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MΩ・km (at 20℃)                                                                                                                             |          |                  |                             |                    |                     |          |                       |                      |
|                       | 使用温度<br>Temperature range               | －15℃～90℃                                                                                                                                      | 105℃     | 90℃dry<br>60℃wet | 90℃dry<br>75℃wet            | 105℃               | 90℃dry<br>75℃wet    | 105℃     | 105℃                  | 75℃                  |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |          |                  |                             |                    |                     |          |                       |                      |
|                       | 難燃性<br>Flame retardant                  | IEC 60332-3 EN 50265-2-1<br>(IEC 60332-1)                                                                                                     | VW-1     |                  | VW-1for CT Use<br>(UL 1685) | VW-1               | FT4                 | VW-1     | FT1                   | ---                  |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                             | ASTM B 3 |                  |                             |                    |                     |          |                       | IEC 60228 Class 5    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |          |                  |                             |                    |                     |          |                       |                      |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                                                                                                |          |                  |                             |                    |                     |          |                       |                      |

認証  
Approval

CE

cULus

UL

TÜVRheinland

cUL

PSE

注釈:認証マークはサイズによって異なります。  
Note : Approval is depending on products.

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br><br>AWG | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br><br>mm | 芯数<br>No. of cores<br><br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br><br>mm | 概算質量<br>Approx.mass<br><br>kg/km | 導体抵抗<br>Conductor<br>resistance<br><br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-----------------------------------------------------|------------------------------------------------------------|---------------------------------------------|-----------------------------|----------------------------------------------|----------------------------------|---------------------------------------------|------------------------------------------------------------------------|
| 7700 0007502        | 18                                                  | 33/0.18<br>〈1.1mm〉                                         | 2.8                                         | 2c                          | 8.9                                          | 84                               | 21.8                                        | 16                                                                     |
| 7700 0007503        |                                                     |                                                            |                                             | 3c                          | 9.3                                          | 102                              |                                             | 16                                                                     |
| 7700 0007504        |                                                     |                                                            |                                             | 4c                          | 10.3                                         | 128                              |                                             | 12                                                                     |
| 7700 0007505        |                                                     |                                                            |                                             | 5c                          | 11.9                                         | 171                              |                                             | 12                                                                     |
| 7700 0015002        | 16                                                  | 53/0.18<br>〈1.5mm〉                                         | 3.2                                         | 2c                          | 9.9                                          | 107                              | 13.7                                        | 19                                                                     |
| 7700 0015003        |                                                     |                                                            |                                             | 3c                          | 10.4                                         | 132                              |                                             | 19                                                                     |
| 7700 0015004        |                                                     |                                                            |                                             | 4c                          | 11.2                                         | 160                              |                                             | 15                                                                     |
| 7700 0015005        |                                                     |                                                            |                                             | 5c                          | 12.9                                         | 212                              |                                             | 15                                                                     |
| 7700 0025002        | 14                                                  | 83/0.18<br>〈1.9mm〉                                         | 4.3                                         | 2c                          | 12.9                                         | 189                              | 8.62                                        | 26                                                                     |
| 7700 0025003        |                                                     |                                                            |                                             | 3c                          | 13.6                                         | 228                              |                                             | 26                                                                     |
| 7700 0025004        |                                                     |                                                            |                                             | 4c                          | 14.7                                         | 276                              |                                             | 20                                                                     |
| 7700 0025005        |                                                     |                                                            |                                             | 5c                          | 16.7                                         | 345                              |                                             | 20                                                                     |
| 7700 0040002        | 12                                                  | 7/19/0.18<br>〈2.4mm〉                                       | 4.8                                         | 2c                          | 14.7                                         | 257                              | 5.24                                        | 36                                                                     |
| 7700 0040003        |                                                     |                                                            |                                             | 3c                          | 15.5                                         | 312                              |                                             | 36                                                                     |
| 7700 0040004        |                                                     |                                                            |                                             | 4c                          | 16.7                                         | 377                              |                                             | 28                                                                     |
| 7700 0040005        |                                                     |                                                            |                                             | 5c                          | 18.1                                         | 434                              |                                             | 28                                                                     |
| 7700 0060002        | 10                                                  | 7/30/0.18<br>〈3.1mm〉                                       | 5.5                                         | 2c                          | 16.1                                         | 322                              | 3.37                                        | 47                                                                     |
| 7700 0060003        |                                                     |                                                            |                                             | 3c                          | 17.0                                         | 398                              |                                             | 47                                                                     |
| 7700 0060004        |                                                     |                                                            |                                             | 4c                          | 18.4                                         | 488                              |                                             | 37                                                                     |
| 7700 0060005        |                                                     |                                                            |                                             | 5c                          | 20.0                                         | 567                              |                                             | 37                                                                     |
| 7700 0100002        | 8                                                   | 7/48/0.18<br>〈3.9mm〉                                       | 7.3                                         | 2c                          | 20.9                                         | 521                              | 2.144                                       | 64                                                                     |
| 7700 0100003        |                                                     |                                                            |                                             | 3c                          | 22.1                                         | 648                              |                                             | 64                                                                     |
| 7700 0100004        |                                                     |                                                            |                                             | 4c                          | 24.8                                         | 842                              |                                             | 51                                                                     |
| 7700 0100005        |                                                     |                                                            |                                             | 5c                          | 26.8                                         | 1002                             |                                             | 51                                                                     |
| 7700 0160002        | 6                                                   | 7/36/0.26<br>〈4.9mm〉                                       | 8.3                                         | 2c                          | 24.3                                         | 738                              | 1.348                                       | 85                                                                     |
| 7700 0160003        |                                                     |                                                            |                                             | 3c                          | 25.6                                         | 920                              |                                             | 85                                                                     |
| 7700 0160004        |                                                     |                                                            |                                             | 4c                          | 27.8                                         | 1133                             |                                             | 68                                                                     |
| 7700 0160005        |                                                     |                                                            |                                             | 5c                          | 30.7                                         | 1396                             |                                             | 68                                                                     |
| 7700 0250002        | 4                                                   | 19/45/0.18<br>〈6.3mm〉                                      | 9.9                                         | 2c                          | 27.5                                         | 998                              | 0.8481                                      | 115                                                                    |
| 7700 0250003        |                                                     |                                                            |                                             | 3c                          | 29.1                                         | 1271                             |                                             | 115                                                                    |
| 7700 0250004        |                                                     |                                                            |                                             | 4c                          | 32.5                                         | 1643                             |                                             | 92                                                                     |
| 7700 0250005        |                                                     |                                                            |                                             | 5c                          | 35.2                                         | 1973                             |                                             | 92                                                                     |
| 7700 0350002        | 2                                                   | 19/33/0.26<br>〈7.7mm〉                                      | 11.3                                        | 2c                          | 31.7                                         | 1399                             | 0.5335                                      | 152                                                                    |
| 7700 0350003        |                                                     |                                                            |                                             | 3c                          | 34.1                                         | 1838                             |                                             | 152                                                                    |
| 7700 0350004        |                                                     |                                                            |                                             | 4c                          | 37.8                                         | 2358                             |                                             | 121                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

#### ■温度減少係数 Temperature Correction Factor

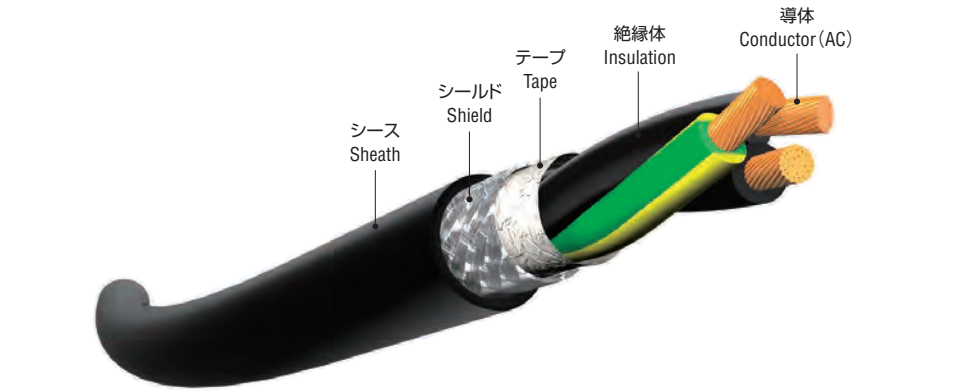
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

RO-FLEX 7700TS

Tray Cable NEC Article 340, Hard Service Cord and High Voltage Cables.  
Especially Purpose For NFPA 79 & NFPA 70.

北米市場/North American Market EMC対策/To keep the EMC



シース色：黒/ライトグレー(特注品)  
Sheath color : Black / Light grey (Customize)

例/Reference RO-FLEX 7700TS 12AWG×3c

| ケーブル特性※1<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|-----------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                         | +105℃                  | −15℃                   | A                     | B                      | B               | B                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 機器外部配線  
2. 電源線(ケーブルトレイ配線用)  
3. 耐ノイズ環境

1. External wiring  
2. Power line for tray cable  
3. Noise resistance

特 長 Characteristics

CE, IEC, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。  
又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX 7700TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, IEC, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                            | (UL)     |                             |                  | c(UL)              |                     | UL       | c-UL                  | PSE                  |                   |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------|------------------|--------------------|---------------------|----------|-----------------------|----------------------|-------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50209455:18AWG<br>J 50328090:16~2AWG                                                                                                        | E 194237 | E 209359                    | E 207230         | E 194237           | E 207230            | E 194236 | E 194236              | JCT                  |                   |
|                       | 適応規格<br>Standard                        | EN 50525:18AWG<br>IEC 60502-1:16~2AWG                                                                                                         | UL 62    | UL 1063                     | UL 1277          | CSA-C22.2<br>No.49 | CSA-C22.2<br>No.239 | UL 758   | CSA C22.2<br>No.210   | 電気用品安全法<br>Denan law |                   |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F:18AWG<br>A1V2V5-F:16~2AWG                                                                                                           | STO      | MTW                         | TC-ER            | STO                | CIC                 | 2501     | AWM I/II<br>Group A/B | 〈PS〉E                |                   |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V:18AWG<br>600/1000V:16~2AWG                                                                                                           | 600V     |                             |                  | 600V               | 600V                | 600V     | 600V                  | 600V                 |                   |
|                       | 耐電圧<br>Test voltage                     | 3500V/5分                                                                                                                                      |          |                             |                  |                    |                     |          |                       |                      |                   |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MΩ・km (at20℃)                                                                                                                              |          |                             |                  |                    |                     |          |                       |                      |                   |
|                       | 使用温度<br>Temperature range               | -15℃~90℃                                                                                                                                      | 105℃     | 90℃dry<br>60℃wet            | 90℃dry<br>75℃wet | 105℃               | 90℃dry<br>75℃wet    | 105℃     | 105℃                  | 75℃                  |                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |          |                             |                  |                    |                     |          |                       |                      |                   |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | IEC 60332-3 EN 50265-2-1<br>(IEC 60332-1)                                                                                                     | VW-1     | VW-1for CT use<br>(UL 1685) |                  | VW-1               | FT4                 | VW-1     | FT1                   | ---                  |                   |
|                       | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                             | ASTM B 3 |                             |                  |                    |                     |          |                       |                      | IEC 60228 Class 5 |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |          |                             |                  |                    |                     |          |                       |                      |                   |
|                       | シールド<br>Shield                          | 編組シールド 18~10AWG:0.12TAC, 8~2AWG:0.21TAC<br>Braid shield 18~10AWG:0.12TAC, 8~2AWG:0.21TAC                                                      |          |                             |                  |                    |                     |          |                       |                      |                   |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                                                                                                |          |                             |                  |                    |                     |          |                       |                      |                   |

認証  
Approval

CE

cULus

UL

TÜVRheinland

cUL

PSE

注釈:認証マークはサイズによって異なります。  
Note : Approval is depending on products.

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br><br>AWG | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br><br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-----------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-----------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 7700 1007502        | 18                                                  | 33/0.18<br>〈1.1mm〉                                         | 2.8                                     | 2c                          | 9.4                                      | 108                          | 21.8                                    | 16                                                                     |
| 7700 1007503        |                                                     |                                                            |                                         | 3c                          | 10.0                                     | 132                          |                                         | 16                                                                     |
| 7700 1007504        |                                                     |                                                            |                                         | 4c                          | 10.8                                     | 157                          |                                         | 12                                                                     |
| 7700 1007505        |                                                     |                                                            |                                         | 5c                          | 12.4                                     | 204                          |                                         | 12                                                                     |
| 7700 1015002        | 16                                                  | 53/0.18<br>〈1.5mm〉                                         | 3.2                                     | 2c                          | 10.4                                     | 136                          | 13.7                                    | 19                                                                     |
| 7700 1015003        |                                                     |                                                            |                                         | 3c                          | 10.9                                     | 161                          |                                         | 19                                                                     |
| 7700 1015004        |                                                     |                                                            |                                         | 4c                          | 11.9                                     | 198                          |                                         | 15                                                                     |
| 7700 1015005        |                                                     |                                                            |                                         | 5c                          | 13.4                                     | 248                          |                                         | 15                                                                     |
| 7700 1025002        | 14                                                  | 83/0.18<br>〈1.9mm〉                                         | 4.3                                     | 2c                          | 13.4                                     | 225                          | 8.62                                    | 26                                                                     |
| 7700 1025003        |                                                     |                                                            |                                         | 3c                          | 14.1                                     | 267                          |                                         | 26                                                                     |
| 7700 1025004        |                                                     |                                                            |                                         | 4c                          | 15.2                                     | 318                          |                                         | 20                                                                     |
| 7700 1025005        |                                                     |                                                            |                                         | 5c                          | 17.2                                     | 393                          |                                         | 20                                                                     |
| 7700 1040002        | 12                                                  | 7/19/0.18<br>〈2.4mm〉                                       | 4.8                                     | 2c                          | 15.2                                     | 297                          | 5.24                                    | 36                                                                     |
| 7700 1040003        |                                                     |                                                            |                                         | 3c                          | 16.0                                     | 355                          |                                         | 36                                                                     |
| 7700 1040004        |                                                     |                                                            |                                         | 4c                          | 17.2                                     | 425                          |                                         | 28                                                                     |
| 7700 1040005        |                                                     |                                                            |                                         | 5c                          | 18.6                                     | 488                          |                                         | 28                                                                     |
| 7700 1060002        | 10                                                  | 7/30/0.18<br>〈3.1mm〉                                       | 5.5                                     | 2c                          | 16.6                                     | 367                          | 3.37                                    | 47                                                                     |
| 7700 1060003        |                                                     |                                                            |                                         | 3c                          | 17.5                                     | 447                          |                                         | 47                                                                     |
| 7700 1060004        |                                                     |                                                            |                                         | 4c                          | 18.9                                     | 543                          |                                         | 37                                                                     |
| 7700 1060005        |                                                     |                                                            |                                         | 5c                          | 20.5                                     | 626                          |                                         | 37                                                                     |
| 7700 1100002        | 8                                                   | 7/48/0.18<br>〈3.9mm〉                                       | 7.3                                     | 2c                          | 21.9                                     | 628                          | 2.144                                   | 64                                                                     |
| 7700 1100003        |                                                     |                                                            |                                         | 3c                          | 23.1                                     | 758                          |                                         | 64                                                                     |
| 7700 1100004        |                                                     |                                                            |                                         | 4c                          | 25.8                                     | 967                          |                                         | 51                                                                     |
| 7700 1100005        |                                                     |                                                            |                                         | 5c                          | 27.8                                     | 1141                         |                                         | 51                                                                     |
| 7700 1160002        | 6                                                   | 7/36/0.26<br>〈4.9mm〉                                       | 8.3                                     | 2c                          | 25.3                                     | 861                          | 1.348                                   | 85                                                                     |
| 7700 1160003        |                                                     |                                                            |                                         | 3c                          | 26.6                                     | 1047                         |                                         | 85                                                                     |
| 7700 1160004        |                                                     |                                                            |                                         | 4c                          | 28.8                                     | 1276                         |                                         | 68                                                                     |
| 7700 1160005        |                                                     |                                                            |                                         | 5c                          | 31.7                                     | 1549                         |                                         | 68                                                                     |
| 7700 1250002        | 4                                                   | 19/45/0.18<br>〈6.3mm〉                                      | 9.9                                     | 2c                          | 28.5                                     | 1139                         | 0.8481                                  | 115                                                                    |
| 7700 1250003        |                                                     |                                                            |                                         | 3c                          | 30.1                                     | 1418                         |                                         | 115                                                                    |
| 7700 1250004        |                                                     |                                                            |                                         | 4c                          | 33.5                                     | 1809                         |                                         | 92                                                                     |
| 7700 1250005        |                                                     |                                                            |                                         | 5c                          | 36.2                                     | 2152                         |                                         | 92                                                                     |
| 7700 1350002        | 2                                                   | 19/33/0.26<br>〈7.7mm〉                                      | 11.3                                    | 2c                          | 32.7                                     | 1560                         | 0.5335                                  | 152                                                                    |
| 7700 1350003        |                                                     |                                                            |                                         | 3c                          | 35.1                                     | 2009                         |                                         | 152                                                                    |
| 7700 1350004        |                                                     |                                                            |                                         | 4c                          | 38.8                                     | 2552                         |                                         | 121                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

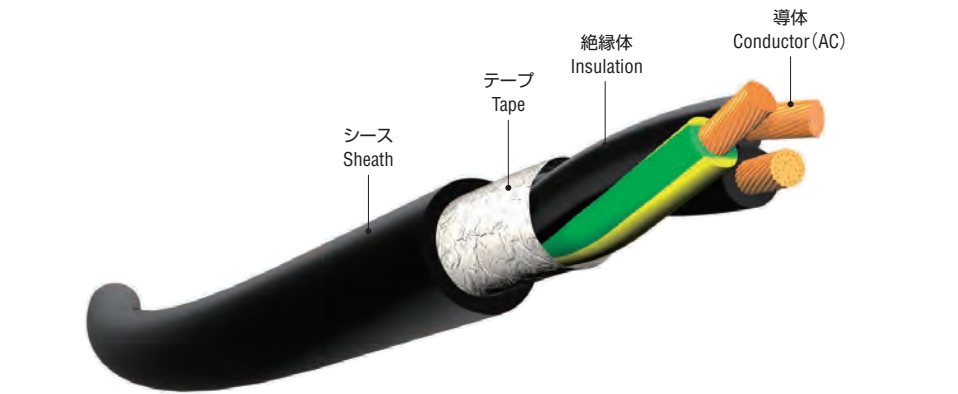
■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

Electrical Power and Control Tray Cable with optical Fiber Member, Machine Tool wire and High Voltage Cables. Especially Purpose For NFPA 79 & NFPA 70.

北米市場/North American Market



シース色：黒/ライトグレー(特注品)  
Sheath color : Black / Light grey (Customize)

例/Reference RO-FLEX 8000T 1.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 機器外部配線

2. 電源線(ケーブルトレイ配線用)

1. External wiring

2. Power line for tray cable

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                            | (UL)             |                             | UL       | c-UL                | PSE                        |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------|----------|---------------------|----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | R 50010540:1.0mm <sup>2</sup><br>J 50328090:1.5~35mm <sup>2</sup>                                                                             | E 209359         | E 207230                    | E 194236 | E 194236            | JD 60154182<br>JD 60154183 |
|                       | 適応規格<br>Standard                        | EN 50525:1.0mm <sup>2</sup><br>IEC 60502-1:1.5~35mm <sup>2</sup>                                                                              | UL 1063          | UL 1277                     | UL 758   | CSA C22.2<br>No.127 | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F:1.0mm <sup>2</sup><br>A1V2V5-F:1.5~35mm <sup>2</sup>                                                                                | MTW              | TC-ER                       | 2516     | TEW                 | (PS)E                      |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V:1.0mm <sup>2</sup><br>600/1000V:1.5~35mm <sup>2</sup>                                                                                | 600V             |                             | 600V     | 600V                | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 3500V/5分                                                                                                                                      |                  |                             |          |                     |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MQ・km (at 20℃)                                                                                                                             |                  |                             |          |                     |                            |
|                       | 使用温度<br>Temperature range               | -15℃~90℃                                                                                                                                      | 90℃dry<br>60℃wet | 90℃dry<br>75℃wet            | 105℃     | 105℃                | -15℃~90℃                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |                  |                             |          |                     |                            |
|                       | 難燃性<br>Flame retardant                  | IEC 60332-3 EN 50265-2-1<br>(IEC 60332-1)                                                                                                     | VW-1             | VW-1for CT use<br>(UL 1685) | VW-1     | FT1                 | EN 50265-2-1 (IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                             | ASTM B 3         |                             |          |                     | IEC 60228 Class 5          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |                  |                             |          |                     |                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                                                                                                |                  |                             |          |                     |                            |

| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 8000 0010002              | 1.0mm <sup>2</sup> /18AWG                                | 37/0.18<br>(1.2mm)                                      | 2.9                                  | 2c                      | 8.3                                   | 75                           | 19.5                                 | 18.0                                                                |
| 8000 0010003              |                                                          |                                                         |                                      | 3c                      | 8.8                                   | 94                           |                                      | 18.0                                                                |
| 8000 0010004              |                                                          |                                                         |                                      | 4c                      | 9.5                                   | 115                          |                                      | 14.4                                                                |
| 8000 0010005              |                                                          |                                                         |                                      | 5c                      | 10.3                                  | 137                          |                                      | 14.4                                                                |
| 8000 0010006              |                                                          |                                                         |                                      | 6c                      | 11.2                                  | 161                          |                                      | 14.4                                                                |
| 8000 0010007              |                                                          |                                                         |                                      | 7c                      | 12.2                                  | 186                          |                                      | 12.6                                                                |
| 8000 0010010              |                                                          |                                                         |                                      | 10c                     | 14.9                                  | 267                          |                                      | 9.0                                                                 |
| 8000 0010012              |                                                          |                                                         |                                      | 12c                     | 15.4                                  | 303                          |                                      | 9.0                                                                 |
| 8000 0010015              |                                                          |                                                         |                                      | 15c                     | 16.9                                  | 367                          |                                      | 9.0                                                                 |
| 8000 0010020              |                                                          |                                                         |                                      | 20c                     | 18.8                                  | 467                          |                                      | 9.0                                                                 |
| 8000 0010030              |                                                          |                                                         |                                      | 30c                     | 23.0                                  | 705                          |                                      | 9.0                                                                 |
| 8000 0015002              | 1.5mm <sup>2</sup> /16AWG                                | 56/0.18<br>(1.5mm)                                      | 3.2                                  | 2c                      | 8.9                                   | 90                           | 13.3                                 | 24                                                                  |
| 8000 0015003              |                                                          |                                                         |                                      | 3c                      | 9.4                                   | 114                          |                                      | 24                                                                  |
| 8000 0015004              |                                                          |                                                         |                                      | 4c                      | 10.4                                  | 146                          |                                      | 19                                                                  |
| 8000 0015005              |                                                          |                                                         |                                      | 5c                      | 11.3                                  | 175                          |                                      | 19                                                                  |
| 8000 0015006              |                                                          |                                                         |                                      | 6c                      | 12.3                                  | 206                          |                                      | 19                                                                  |
| 8000 0015007              |                                                          |                                                         |                                      | 7c                      | 13.6                                  | 245                          |                                      | 17                                                                  |
| 8000 0015010              |                                                          |                                                         |                                      | 10c                     | 16.1                                  | 333                          |                                      | 12                                                                  |
| 8000 0015012              |                                                          |                                                         |                                      | 12c                     | 16.6                                  | 379                          |                                      | 12                                                                  |
| 8000 0015015              |                                                          |                                                         |                                      | 15c                     | 18.3                                  | 462                          |                                      | 12                                                                  |
| 8000 0015020              |                                                          |                                                         |                                      | 20c                     | 20.4                                  | 593                          |                                      | 12                                                                  |
| 8000 0015030              |                                                          |                                                         |                                      | 30c                     | 24.9                                  | 892                          |                                      | 12                                                                  |
| 8000 0025002              | 2.5mm <sup>2</sup> /14AWG                                | 93/0.18<br>(1.9mm)                                      | 3.6                                  | 2c                      | 9.9                                   | 128                          | 7.98                                 | 30                                                                  |
| 8000 0025003              |                                                          |                                                         |                                      | 3c                      | 10.5                                  | 162                          |                                      | 30                                                                  |
| 8000 0025004              |                                                          |                                                         |                                      | 4c                      | 11.4                                  | 200                          |                                      | 24                                                                  |
| 8000 0025005              |                                                          |                                                         |                                      | 5c                      | 12.4                                  | 234                          |                                      | 24                                                                  |
| 8000 0025006              |                                                          |                                                         |                                      | 6c                      | 14.1                                  | 295                          |                                      | 24                                                                  |
| 8000 0025007              |                                                          |                                                         |                                      | 7c                      | 15.4                                  | 342                          |                                      | 21                                                                  |
| 8000 0025010              |                                                          |                                                         |                                      | 10c                     | 17.7                                  | 447                          |                                      | 15                                                                  |
| 8000 0025012              |                                                          |                                                         |                                      | 12c                     | 18.3                                  | 515                          |                                      | 15                                                                  |
| 8000 0025015              |                                                          |                                                         |                                      | 15c                     | 20.2                                  | 630                          |                                      | 15                                                                  |
| 8000 0025020              |                                                          |                                                         |                                      | 20c                     | 23.5                                  | 870                          |                                      | 15                                                                  |
| 8000 0025030              |                                                          |                                                         |                                      | 30c                     | 27.5                                  | 1224                         |                                      | 15                                                                  |
| 8000 0040002              | 4.0mm <sup>2</sup> /12AWG                                | 7/20/0.18<br>(2.6mm)                                    | 4.6                                  | 2c                      | 11.9                                  | 181                          | 4.95                                 | 35                                                                  |
| 8000 0040003              |                                                          |                                                         |                                      | 3c                      | 12.8                                  | 236                          |                                      | 35                                                                  |
| 8000 0040004              |                                                          |                                                         |                                      | 4c                      | 14.4                                  | 308                          |                                      | 28                                                                  |
| 8000 0040005              |                                                          |                                                         |                                      | 5c                      | 15.7                                  | 358                          |                                      | 28                                                                  |
| 8000 0060002              | 6.0mm <sup>2</sup> /10AWG                                | 7/32/0.18<br>(3.1mm)                                    | 5.3                                  | 2c                      | 13.5                                  | 249                          | 3.3                                  | 50                                                                  |
| 8000 0060003              |                                                          |                                                         |                                      | 3c                      | 14.7                                  | 336                          |                                      | 50                                                                  |
| 8000 0060004              |                                                          |                                                         |                                      | 4c                      | 16.1                                  | 422                          |                                      | 40                                                                  |
| 8000 0060005              |                                                          |                                                         |                                      | 5c                      | 17.6                                  | 495                          |                                      | 40                                                                  |
| 8000 0100002              | 10mm <sup>2</sup> /8AWG                                  | 7/53/0.18<br>(3.9mm)                                    | 6.5                                  | 2c                      | 16.3                                  | 381                          | 1.91                                 | 70                                                                  |
| 8000 0100003              |                                                          |                                                         |                                      | 3c                      | 17.3                                  | 497                          |                                      | 70                                                                  |
| 8000 0100004              |                                                          |                                                         |                                      | 4c                      | 19.0                                  | 630                          |                                      | 56                                                                  |
| 8000 0160002              | 16mm <sup>2</sup> /6AWG                                  | 7/40/0.26<br>(4.9mm)                                    | 8.1                                  | 2c                      | 19.5                                  | 556                          | 1.21                                 | 95                                                                  |
| 8000 0160003              |                                                          |                                                         |                                      | 3c                      | 20.8                                  | 736                          |                                      | 95                                                                  |
| 8000 0160004              | 25mm <sup>2</sup> /4AWG                                  | 19/49/0.18<br>(6.8mm)                                   | 10.0                                 | 4c                      | 23.9                                  | 996                          | 0.78                                 | 76                                                                  |
| 8000 0250002              |                                                          |                                                         |                                      | 2c                      | 24.3                                  | 859                          |                                      | 125                                                                 |
| 8000 0250003              |                                                          |                                                         |                                      | 3c                      | 25.9                                  | 1135                         |                                      | 125                                                                 |
| 8000 0250004              | 35mm <sup>2</sup> /2AWG                                  | 19/33/0.26<br>(7.7mm)                                   | 11.1                                 | 4c                      | 28.5                                  | 1447                         | 0.5335                               | 100                                                                 |
| 8000 0350002              |                                                          |                                                         |                                      | 2c                      | 26.5                                  | 1098                         |                                      | 170                                                                 |
| 8000 0350003              |                                                          |                                                         |                                      | 3c                      | 28.3                                  | 1471                         |                                      | 170                                                                 |
| 8000 0350004              |                                                          |                                                         |                                      | 4c                      | 31.2                                  | 1887                         |                                      | 136                                                                 |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

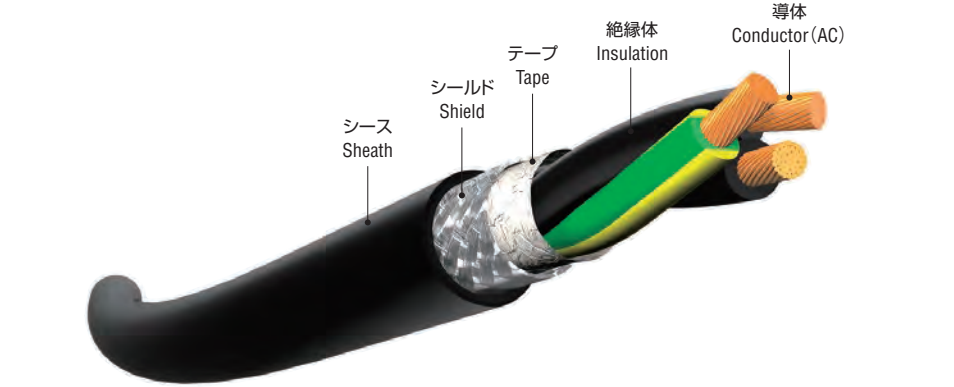
|                              |       |       |       |       |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 21〜25 | 26〜30 | 31〜35 | 36〜40 | 41〜45 | 46〜50 | 51〜55 | 56〜60 | 61〜70 |
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

RO-FLEX 8000TS

Fixed cable. Screened wires. Electrical Power and Control Tray Cable with optical Fiber Member, Machine Tool wire and High Voltage Cables. Especially Purpose For NFPA 79 & NFPA 70.

北米市場/North American Market EMC対策/To keep the EMC



シース色：黒/ライトグレー(特注品)  
Sheath color : Black / Light grey (Customize)

例/Reference RO-FLEX 8000TS 6.0mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | B                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 機器外部配線  
2. 電源線(ケーブルトレイ配線用)  
3. 耐ノイズ環境

1. External wiring  
2. Power line for tray cable  
3. Noise resistance

特 長 Characteristics

CE, IEC, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX8000TS series enable to simplify the design and efficient storage for the reduction of costs due to CE, IEC, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                                                                            | (UL)             |                             | UL       | c-UL                | PSE                        |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------|----------|---------------------|----------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010534:1.0mm <sup>2</sup><br>J 50328090:1.5～35mm <sup>2</sup>                                                                             | E 209359         | E 207230                    | E 194236 | E 194236            | JD 60154182<br>JD 60154183 |
|                       | 適応規格<br>Standard                        | EN 50525:1.0mm <sup>2</sup><br>IEC 60502-1:1.5～35mm <sup>2</sup>                                                                              | UL 1063          | UL 1277                     | UL 758   | CSA C22.2<br>No.127 | 電気用品安全法<br>Denan law       |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F:1.0mm <sup>2</sup><br>A1V2V5-F:1.5～35mm <sup>2</sup>                                                                                | MTW              | TC-ER                       | 2516     | TEW                 | (PS)E                      |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V:1.0mm <sup>2</sup><br>600/1000V:1.5～35mm <sup>2</sup>                                                                                | 600V             |                             | 600V     | 600V                | 300/500V                   |
|                       | 耐電圧<br>Test voltage                     | 3500V/5分                                                                                                                                      |                  |                             |          |                     |                            |
|                       | 絶縁抵抗<br>Insulation resistance           | 100MΩ・km (at20℃)                                                                                                                              |                  |                             |          |                     |                            |
|                       | 使用温度<br>Temperature range               | －15℃～90℃                                                                                                                                      | 90℃dry<br>60℃wet | 90℃dry<br>75℃wet            | 105℃     | 105℃                | －15℃～90℃                   |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                  |                  |                             |          |                     |                            |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | IEC 60332-3 EN 50265-2-1<br>(IEC 60332-1)                                                                                                     | VW-1             | VW-1for CT use<br>(UL 1685) | VW-1     | FT1                 | EN 50265-2-1 (IEC 60332-1) |
|                       | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                                                             | ASTM B 3         |                             |          |                     | IEC 60228 Class 5          |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |                  |                             |          |                     |                            |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                                                                                        |                  |                             |          |                     |                            |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/黒<br>Oil and Heat resistant PVC/Black                                                                                                |                  |                             |          |                     |                            |

認証  
Approval

CE

UL

TÜVRheinland

cULus

D

PSE

注釈:認証マークはサイズによって異なります。  
Note : Approval is depending on products.

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 8000 1010002        | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br>(1.2mm)                                         | 2.9                                     | 2c                      | 8.8                                      | 99                           | 19.5                                    | 18.0                                                                   |
| 8000 1010003        |                                                             |                                                            |                                         | 3c                      | 9.3                                      | 121                          |                                         | 18.0                                                                   |
| 8000 1010004        |                                                             |                                                            |                                         | 4c                      | 10.0                                     | 143                          |                                         | 14.4                                                                   |
| 8000 1010005        |                                                             |                                                            |                                         | 5c                      | 10.8                                     | 169                          |                                         | 14.4                                                                   |
| 8000 1010006        |                                                             |                                                            |                                         | 6c                      | 11.7                                     | 195                          |                                         | 14.4                                                                   |
| 8000 1010007        |                                                             |                                                            |                                         | 7c                      | 12.7                                     | 223                          |                                         | 12.6                                                                   |
| 8000 1010010        |                                                             |                                                            |                                         | 10c                     | 15.4                                     | 313                          |                                         | 9.0                                                                    |
| 8000 1010012        |                                                             |                                                            |                                         | 12c                     | 15.9                                     | 351                          |                                         | 9.0                                                                    |
| 8000 1010015        |                                                             |                                                            |                                         | 15c                     | 17.4                                     | 420                          |                                         | 9.0                                                                    |
| 8000 1010020        |                                                             |                                                            |                                         | 20c                     | 19.5                                     | 537                          |                                         | 9.0                                                                    |
| 8000 1010030        |                                                             |                                                            |                                         | 30c                     | 23.5                                     | 777                          |                                         | 9.0                                                                    |
| 8000 1015002        | 1.5mm <sup>2</sup> /16AWG                                   | 56/0.18<br>(1.5mm)                                         | 3.2                                     | 2c                      | 9.4                                      | 117                          | 13.3                                    | 24                                                                     |
| 8000 1015003        |                                                             |                                                            |                                         | 3c                      | 10.1                                     | 147                          |                                         | 24                                                                     |
| 8000 1015004        |                                                             |                                                            |                                         | 4c                      | 10.9                                     | 178                          |                                         | 19                                                                     |
| 8000 1015005        |                                                             |                                                            |                                         | 5c                      | 11.8                                     | 210                          |                                         | 19                                                                     |
| 8000 1015006        |                                                             |                                                            |                                         | 6c                      | 13.0                                     | 250                          |                                         | 19                                                                     |
| 8000 1015007        |                                                             |                                                            |                                         | 7c                      | 14.5                                     | 300                          |                                         | 17                                                                     |
| 8000 1015010        |                                                             |                                                            |                                         | 10c                     | 16.6                                     | 383                          |                                         | 12                                                                     |
| 8000 1015012        |                                                             |                                                            |                                         | 12c                     | 17.1                                     | 432                          |                                         | 12                                                                     |
| 8000 1015015        |                                                             |                                                            |                                         | 15c                     | 18.8                                     | 521                          |                                         | 12                                                                     |
| 8000 1015020        |                                                             |                                                            |                                         | 20c                     | 20.9                                     | 659                          |                                         | 12                                                                     |
| 8000 1015030        |                                                             |                                                            |                                         | 30c                     | 25.4                                     | 972                          |                                         | 12                                                                     |
| 8000 1025002        | 2.5mm <sup>2</sup> /14AWG                                   | 93/0.18<br>(1.9mm)                                         | 3.6                                     | 2c                      | 10.4                                     | 160                          | 7.98                                    | 30                                                                     |
| 8000 1025003        |                                                             |                                                            |                                         | 3c                      | 11.0                                     | 194                          |                                         | 30                                                                     |
| 8000 1025004        |                                                             |                                                            |                                         | 4c                      | 11.9                                     | 235                          |                                         | 24                                                                     |
| 8000 1025005        |                                                             |                                                            |                                         | 5c                      | 13.1                                     | 278                          |                                         | 24                                                                     |
| 8000 1025006        |                                                             |                                                            |                                         | 6c                      | 14.6                                     | 338                          |                                         | 24                                                                     |
| 8000 1025007        |                                                             |                                                            |                                         | 7c                      | 15.9                                     | 389                          |                                         | 21                                                                     |
| 8000 1025010        |                                                             |                                                            |                                         | 10c                     | 18.2                                     | 503                          |                                         | 15                                                                     |
| 8000 1025012        |                                                             |                                                            |                                         | 12c                     | 18.8                                     | 574                          |                                         | 15                                                                     |
| 8000 1025015        |                                                             |                                                            |                                         | 15c                     | 20.7                                     | 696                          |                                         | 15                                                                     |
| 8000 1025020        |                                                             |                                                            |                                         | 20c                     | 24.0                                     | 944                          |                                         | 15                                                                     |
| 8000 1025030        |                                                             |                                                            |                                         | 30c                     | 28.0                                     | 1311                         |                                         | 15                                                                     |
| 8000 1040002        | 4.0mm <sup>2</sup> /12AWG                                   | 7/20/0.18<br>(2.6mm)                                       | 4.6                                     | 2c                      | 12.4                                     | 218                          | 4.95                                    | 35                                                                     |
| 8000 1040003        |                                                             |                                                            |                                         | 3c                      | 13.3                                     | 274                          |                                         | 35                                                                     |
| 8000 1040004        |                                                             |                                                            |                                         | 4c                      | 14.9                                     | 351                          |                                         | 28                                                                     |
| 8000 1040005        |                                                             |                                                            |                                         | 5c                      | 16.2                                     | 407                          |                                         | 28                                                                     |
| 8000 1060002        | 6.0mm <sup>2</sup> /10AWG                                   | 7/32/0.18<br>(3.1mm)                                       | 5.3                                     | 2c                      | 14.4                                     | 304                          | 3.3                                     | 50                                                                     |
| 8000 1060003        |                                                             |                                                            |                                         | 3c                      | 15.2                                     | 381                          |                                         | 50                                                                     |
| 8000 1060004        |                                                             |                                                            |                                         | 4c                      | 16.6                                     | 472                          |                                         | 40                                                                     |
| 8000 1060005        |                                                             |                                                            |                                         | 5c                      | 18.1                                     | 551                          |                                         | 40                                                                     |
| 8000 1100002        | 10mm <sup>2</sup> /8AWG                                     | 7/53/0.18<br>(3.9mm)                                       | 6.5                                     | 2c                      | 16.8                                     | 432                          | 1.91                                    | 70                                                                     |
| 8000 1100003        |                                                             |                                                            |                                         | 3c                      | 17.8                                     | 552                          |                                         | 70                                                                     |
| 8000 1100004        |                                                             |                                                            |                                         | 4c                      | 19.5                                     | 691                          |                                         | 56                                                                     |
| 8000 1160002        | 16mm <sup>2</sup> /6AWG                                     | 7/40/0.26<br>(4.9mm)                                       | 8.1                                     | 2c                      | 20.0                                     | 618                          | 1.21                                    | 95                                                                     |
| 8000 1160003        |                                                             |                                                            |                                         | 3c                      | 22.3                                     | 855                          |                                         | 95                                                                     |
| 8000 1160004        |                                                             |                                                            |                                         | 4c                      | 24.4                                     | 1072                         |                                         | 76                                                                     |
| 8000 1250002        | 25mm <sup>2</sup> /4AWG                                     | 19/49/0.18<br>(6.8mm)                                      | 10.0                                    | 2c                      | 24.8                                     | 937                          | 0.78                                    | 125                                                                    |
| 8000 1250003        |                                                             |                                                            |                                         | 3c                      | 26.4                                     | 1217                         |                                         | 125                                                                    |
| 8000 1250004        |                                                             |                                                            |                                         | 4c                      | 29.0                                     | 1537                         |                                         | 100                                                                    |
| 8000 1350002        | 35mm <sup>2</sup> /2AWG                                     | 19/33/0.26<br>(7.7mm)                                      | 11.1                                    | 2c                      | 27.0                                     | 1182                         | 0.5335                                  | 170                                                                    |
| 8000 1350003        |                                                             |                                                            |                                         | 3c                      | 28.8                                     | 1561                         |                                         | 170                                                                    |
| 8000 1350004        |                                                             |                                                            |                                         | 4c                      | 31.7                                     | 1992                         |                                         | 136                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

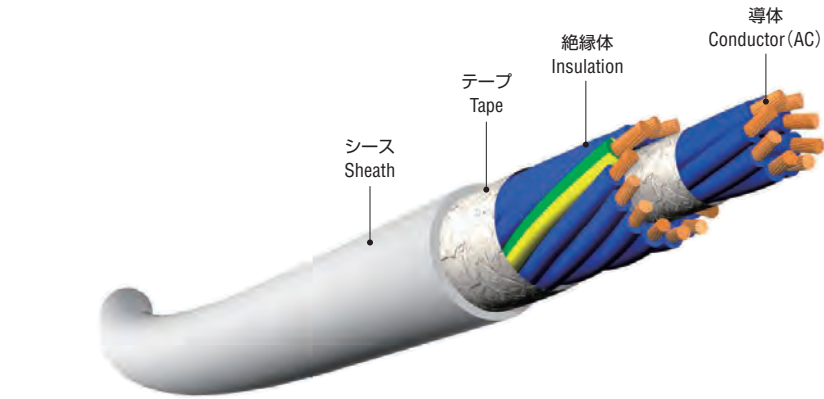
●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX-TC-MTW-T

Fixed cable. Electrical Power and Control Tray Cable with optical Fiber Member,  
Machine Tool Wire and High Voltage Cables. Especially Purpose For NFPA 79 & NFPA 70.

WORLD WIDE STANDARD CABLE  
Listing-Series

## 北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-TC-MTW-T 0.75mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | −15℃                   | A                     | B                      | B               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

## 用 途 Application

- 機器内部・外部配線  
ケーブルトレイ配線用

- Internal and External wiring  
for tray cable

## 特 長 Characteristics

CE, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX-TC-MTW-T series enable to simplify the design and efficient storage for the reduction of costs due to CE, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                                |                  | CE                                                                                | (UL)             |                             | UL       | c-UL               | PSE                                                                                 |
|-----------------------|------------------------------------------------|------------------|-----------------------------------------------------------------------------------|------------------|-----------------------------|----------|--------------------|-------------------------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                     |                  | J 50009996                                                                        | E 209359         | E 207230                    | E 194236 | E 194236           | JD 60154183                                                                         |
|                       | 適応規格<br>Standard                               |                  | EN 50525                                                                          | UL 1063          | UL 1277                     | UL 758   | CSA C22.2 No.210   | 電気用品安全法<br>Denan law                                                                |
|                       | ケーブルデザイン<br>Cable designation                  |                  | A05V2V5-F                                                                         | MTW              | TC-ER                       | 2586     | AWM I/II Group A/B | (PS)E                                                                               |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage                  |                  | 300/500V                                                                          | 600V             |                             | 600V     | 600V               | 300/500V                                                                            |
|                       | 耐電圧<br>Test voltage                            |                  | 2500V/5分                                                                          |                  |                             |          |                    |                                                                                     |
|                       | 絶縁抵抗<br>Insulation resistance                  |                  | 200MQ・km (at 20℃)                                                                 |                  |                             |          |                    |                                                                                     |
|                       | 使用温度<br>Temperature range                      |                  | −15℃〜90℃                                                                          | 90℃dry<br>60℃wet | 60℃                         | 105℃     | 105℃               | −15℃〜90℃                                                                            |
|                       | 曲げ半径<br>Minimum bending for radius             |                  | 6D D=ケーブル外径/Overall diameter                                                      |                  |                             |          |                    |                                                                                     |
|                       | 難燃性<br>Flame retardant                         |                  | EN 50265-2-1 (IEC 60332-1)                                                        | VW-1             | VW-1for CT use<br>(UL 1685) | VW-1     | FT1                | EN 50265-2-1 (IEC 60332-1)                                                          |
| 構造<br>Construction    | 導体<br>Conductor                                |                  | IEC 60228 Class 5                                                                 |                  | ASTM B 3                    |          |                    | IEC 60228 Class 5                                                                   |
|                       | 絶縁/識別<br>Insulation/<br>Core<br>identification | DCタイプ<br>DC Type | 耐熱PVC/青/ナンバリング白+緑/黄<br>Heat resistant PVC/Blue core with white numbering +G/Y     |                  |                             |          |                    | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |
|                       |                                                | ACタイプ<br>AC Type | 耐熱PVC/赤/ナンバリング白+緑/黄<br>Heat resistant PVC/Red core with white numbering +G/Y      |                  |                             |          |                    | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |
|                       | シース/シース色<br>Sheath/Sheath color                |                  | 耐油・耐熱PVC/ライトグレー(N7)<br>Oil and Heat resistant PVC/Light grey (Mansel number : N7) |                  |                             |          |                    |                                                                                     |
|                       |                                                |                  |                                                                                   |                  |                             |          |                    |                                                                                     |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

## ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup>  | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|--------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 8010 0007502        | 0.75mm <sup>2</sup> /18AWG                                   | 33/0.18〈1.1〉                                             | 2.8                                     | 2c                      | 8.1                                      | 71                           | 21.8                                    | 8.8                                                                    |
| 8010 0007503        | 0.75mm <sup>2</sup> /18AWG                                   | 33/0.18〈1.1〉                                             | 2.8                                     | 3c                      | 8.5                                      | 88                           | 21.8                                    | 7.7                                                                    |
| 8010 0007504        | 0.75mm <sup>2</sup> /18AWG                                   | 33/0.18〈1.1〉                                             | 2.8                                     | 4c                      | 9.3                                      | 108                          | 21.8                                    | 7.2                                                                    |
| 8010 0007508        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 7c<br>1c                | 13.7                                     | 226                          | 21.8<br>7.98                            | 6.1                                                                    |
| 8010 0007511        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 10c<br>1c               | 15.3                                     | 289                          | 21.8<br>7.98                            | 5.5                                                                    |
| 8010 0007521        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 20c<br>1c               | 20.2                                     | 496                          | 21.8<br>7.98                            | 4.4                                                                    |
| 8010 0007531        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 30c<br>1c               | 23.7                                     | 699                          | 21.8<br>7.98                            | 3.3                                                                    |
| 8010 0007541        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 40c<br>1c               | 26.8                                     | 908                          | 21.8<br>7.98                            | 3.3                                                                    |
| 8010 0007551        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 33/0.18〈1.1〉<br>93/0.18〈1.9〉                             | 2.8<br>3.6                              | 50c<br>1c               | 29.2                                     | 1098                         | 21.8<br>7.98                            | 3.3                                                                    |

- 販売条長：153m Standard length：153m(500Ft)/ 8010 0007502～08  
305m Standard length：305m(1000Ft)/ 8010 0007511～51

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

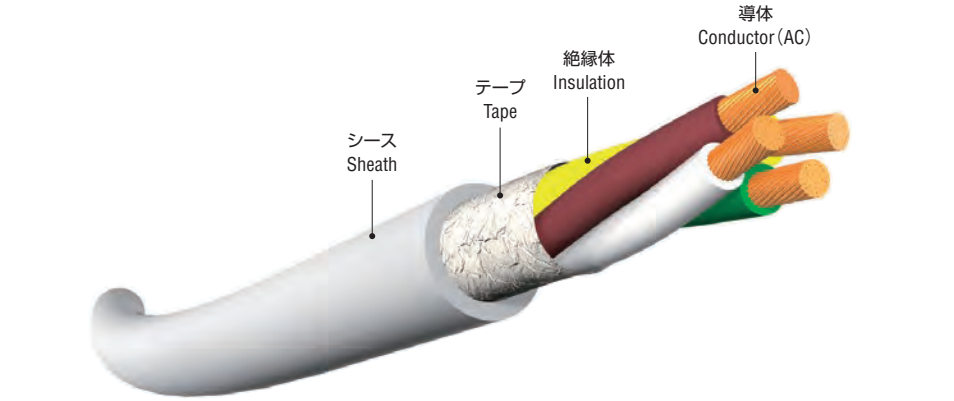
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

## ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

- 北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 800F 0.5mm<sup>2</sup>×2P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | C                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部

2. 通信線(ケーブルトレイ配線用)

1. Constant movement

2. Communication line for tray cable

特 長 Characteristics

UL, c-UL, NFPA, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized (AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 800F series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA and CE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                        | UL       | c(UL)                     | c-UL               | CE                                                                 |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|---------------------------|--------------------|--------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 308483                                                    | E 194236 | E 308483                  | E 194236           | J 50010985                                                         |
|                       | 適応規格<br>Standard                        | UL 444                                                      | UL 758   | CSA C22.2 No.214          | CSA C22.2 No.210   | VDE 0812                                                           |
|                       | ケーブルデザイン<br>Cable designation           | CM                                                          | 2464     | CM                        | AWM I/II Group A/B | LIYY                                                               |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300V                                                        | 300V     | 300V                      | 300V               | 350V peak:0.14mm <sup>2</sup><br>500V peak:0.25~0.5mm <sup>2</sup> |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                           |                    |                                                                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                           |          |                           |                    |                                                                    |
|                       | 使用温度<br>Temperature range               | 90℃                                                         | 80℃      | 90℃                       | 105℃               | 0℃~90℃                                                             |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                           |                    |                                                                    |
|                       | 難燃性<br>Flame retardant                  | VW-1 for CT use (UL 1685)                                   | VW-1     | VW-1 for CT use (UL 1685) | FT1                | EN 50265-2-1 (IEC 60332-1)                                         |
| 構造<br>Construction    | 導体<br>Conductor                         | ASTM B 3                                                    |          |                           |                    | IEC 60228 Class 6                                                  |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別2」参照<br>Heat resistant PVC/See core identification |          |                           |                    |                                                                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey    |          |                           |                    |                                                                    |

認証  
Approval

CE

cUL

TÜVRheinland

cULUS

UL

| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 4441 0001401              | 0.14mm <sup>2</sup> /26AWG                               | 27/0.08<br>〈0.5mm〉                                      | 1.1                                  | 1P                      | 3.9                                   | 17                           | 132                                  | 3.6                                                                 |
| 4441 0001402              |                                                          |                                                         |                                      | 2P                      | 5.4                                   | 28                           |                                      | 2.7                                                                 |
| 4441 0001403              |                                                          |                                                         |                                      | 3P                      | 5.7                                   | 34                           |                                      | 2.3                                                                 |
| 4441 0001404              |                                                          |                                                         |                                      | 4P                      | 6.2                                   | 41                           |                                      | 2.0                                                                 |
| 4441 0001405              |                                                          |                                                         |                                      | 5P                      | 6.7                                   | 48                           |                                      | 1.9                                                                 |
| 4441 0001406              |                                                          |                                                         |                                      | 6P                      | 7.5                                   | 60                           |                                      | 1.8                                                                 |
| 4441 0001407              |                                                          |                                                         |                                      | 7P                      | 7.5                                   | 62                           |                                      | 1.6                                                                 |
| 4441 0001408              |                                                          |                                                         |                                      | 8P                      | 8.0                                   | 72                           |                                      | 1.5                                                                 |
| 4441 0001410              |                                                          |                                                         |                                      | 10P                     | 9.1                                   | 88                           |                                      | 1.4                                                                 |
| 4441 0001412              |                                                          |                                                         |                                      | 12P                     | 9.4                                   | 98                           |                                      | 1.3                                                                 |
| 4441 0001416              |                                                          |                                                         |                                      | 16P                     | 10.6                                  | 128                          |                                      | 1.2                                                                 |
| 4441 0001420              |                                                          |                                                         |                                      | 20P                     | 12.0                                  | 161                          |                                      | 1.1                                                                 |
| 4441 0002501              | 0.25mm <sup>2</sup> /24AWG                               | 48/0.08<br>〈0.7mm〉                                      | 1.5                                  | 1P                      | 4.7                                   | 24                           | 75.4                                 | 5.2                                                                 |
| 4441 0002502              |                                                          |                                                         |                                      | 2P                      | 6.8                                   | 42                           |                                      | 3.9                                                                 |
| 4441 0002503              |                                                          |                                                         |                                      | 3P                      | 7.2                                   | 51                           |                                      | 3.2                                                                 |
| 4441 0002504              |                                                          |                                                         |                                      | 4P                      | 8.1                                   | 67                           |                                      | 2.9                                                                 |
| 4441 0002505              |                                                          |                                                         |                                      | 5P                      | 9.0                                   | 84                           |                                      | 2.7                                                                 |
| 4441 0002506              |                                                          |                                                         |                                      | 6P                      | 9.8                                   | 99                           |                                      | 2.6                                                                 |
| 4441 0002507              |                                                          |                                                         |                                      | 7P                      | 9.8                                   | 103                          |                                      | 2.3                                                                 |
| 4441 0002508              |                                                          |                                                         |                                      | 8P                      | 10.6                                  | 125                          |                                      | 2.2                                                                 |
| 4441 0002510              |                                                          |                                                         |                                      | 10P                     | 12.1                                  | 150                          |                                      | 2.0                                                                 |
| 4441 0002512              |                                                          |                                                         |                                      | 12P                     | 12.5                                  | 169                          |                                      | 1.9                                                                 |
| 4441 0002516              |                                                          |                                                         |                                      | 16P                     | 14.0                                  | 219                          |                                      | 1.7                                                                 |
| 4441 0002520              |                                                          |                                                         |                                      | 20P                     | 15.8                                  | 274                          |                                      | 1.5                                                                 |
| 4441 0003401              | 0.34mm <sup>2</sup> /22AWG                               | 68/0.08<br>〈0.85mm〉                                     | 1.65                                 | 1P                      | 5.0                                   | 28                           | 55.4                                 | 6.0                                                                 |
| 4441 0003402              |                                                          |                                                         |                                      | 2P                      | 7.5                                   | 52                           |                                      | 4.5                                                                 |
| 4441 0003403              |                                                          |                                                         |                                      | 3P                      | 8.0                                   | 65                           |                                      | 3.8                                                                 |
| 4441 0003404              |                                                          |                                                         |                                      | 4P                      | 8.9                                   | 84                           |                                      | 3.4                                                                 |
| 4441 0003405              |                                                          |                                                         |                                      | 5P                      | 9.7                                   | 101                          |                                      | 3.1                                                                 |
| 4441 0003406              |                                                          |                                                         |                                      | 6P                      | 10.7                                  | 123                          |                                      | 3.0                                                                 |
| 4441 0003407              |                                                          |                                                         |                                      | 7P                      | 10.7                                  | 129                          |                                      | 2.7                                                                 |
| 4441 0003408              |                                                          |                                                         |                                      | 8P                      | 11.4                                  | 150                          |                                      | 2.6                                                                 |
| 4441 0003410              |                                                          |                                                         |                                      | 10P                     | 13.3                                  | 186                          |                                      | 2.3                                                                 |
| 4441 0003412              |                                                          |                                                         |                                      | 12P                     | 13.7                                  | 210                          |                                      | 2.2                                                                 |
| 4441 0003416              |                                                          |                                                         |                                      | 16P                     | 15.3                                  | 272                          |                                      | 1.9                                                                 |
| 4441 0003420              |                                                          |                                                         |                                      | 20P                     | 17.3                                  | 341                          |                                      | 1.8                                                                 |
| 4441 0005001              | 0.5mm <sup>2</sup> /20AWG                                | 110/0.08<br>〈1.1mm〉                                     | 1.9                                  | 1P                      | 5.5                                   | 35                           | 34.6                                 | 8.1                                                                 |
| 4441 0005002              |                                                          |                                                         |                                      | 2P                      | 8.4                                   | 66                           |                                      | 6.0                                                                 |
| 4441 0005003              |                                                          |                                                         |                                      | 3P                      | 9.1                                   | 88                           |                                      | 5.1                                                                 |
| 4441 0005004              |                                                          |                                                         |                                      | 4P                      | 9.9                                   | 109                          |                                      | 4.5                                                                 |
| 4441 0005005              |                                                          |                                                         |                                      | 5P                      | 11.0                                  | 136                          |                                      | 4.2                                                                 |
| 4441 0005006              |                                                          |                                                         |                                      | 6P                      | 12.2                                  | 167                          |                                      | 4.1                                                                 |
| 4441 0005007              |                                                          |                                                         |                                      | 7P                      | 12.2                                  | 175                          |                                      | 3.7                                                                 |
| 4441 0005008              |                                                          |                                                         |                                      | 8P                      | 13.0                                  | 204                          |                                      | 3.5                                                                 |
| 4441 0005010              |                                                          |                                                         |                                      | 10P                     | 15.1                                  | 253                          |                                      | 3.1                                                                 |
| 4441 0005012              |                                                          |                                                         |                                      | 12P                     | 15.5                                  | 286                          |                                      | 2.9                                                                 |
| 4441 0005016              |                                                          |                                                         |                                      | 16P                     | 17.6                                  | 380                          |                                      | 2.6                                                                 |
| 4441 0005020              |                                                          |                                                         |                                      | 20P                     | 19.8                                  | 474                          |                                      | 2.4                                                                 |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

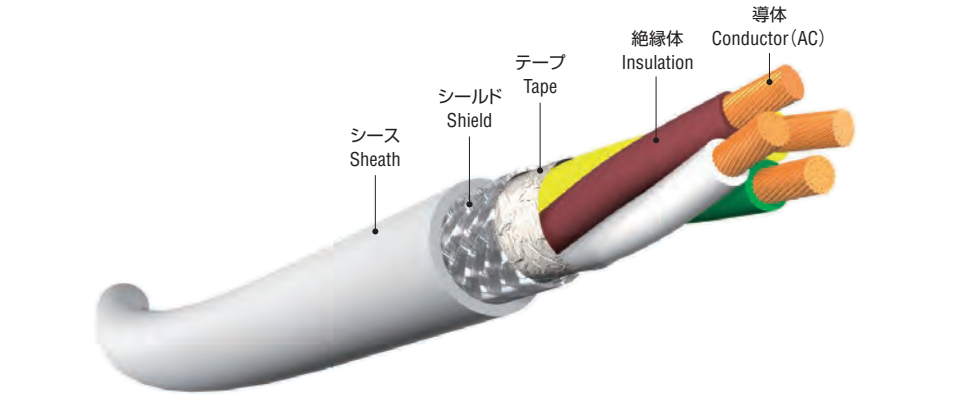
|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX 800FS

Robot cable. Communication Circuits cable NEC Article 800.

## 北米市場/North American Market EMC対策/To keep the EMC



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 800FS 0.5mm<sup>2</sup>×2P

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | A                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

### 用 途 Application

1. 可動部
2. 通信線(ケーブルトレイ配線用)
3. 耐ノイズ環境

1. Constant movement
2. Communication line for tray cable
3. Noise resistance

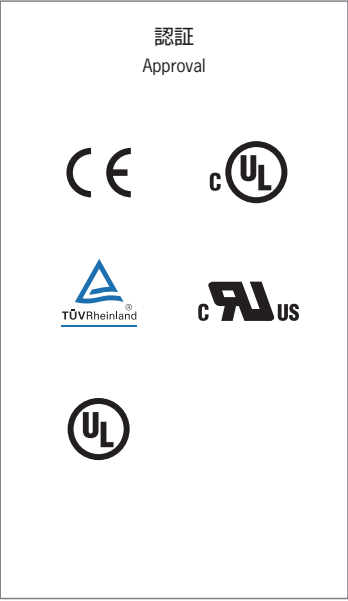
### 特 長 Characteristics

UL, c-UL, NFPA, CEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 800FS series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA and CE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). They are small diameter Listed products equal with the Recognized(AWM). "Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                        | UL       | c(UL)                     | c-UL               | CE                                                                 |
|-----------------------|-----------------------------------------|-------------------------------------------------------------|----------|---------------------------|--------------------|--------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 308483                                                    | E 194236 | E 308483                  | E 194236           | J 50011069                                                         |
|                       | 適応規格<br>Standard                        | UL 444                                                      | UL 758   | CSA C22.2 No.214          | CSA C22.2 No.210   | VDE 0812                                                           |
|                       | ケーブルデザイン<br>Cable designation           | CM                                                          | 2464     | CM                        | AWM I/II Group A/B | LIYCY                                                              |
| 特性<br>Characteristics | 公称電圧<br>Rated voltage                   | 300V                                                        | 300V     | 300V                      | 300V               | 350V peak:0.14mm <sup>2</sup><br>500V peak:0.25~0.5mm <sup>2</sup> |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                    |          |                           |                    |                                                                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MQ・km (at 20℃)                                           |          |                           |                    |                                                                    |
|                       | 使用温度<br>Temperature range               | 90℃                                                         | 80℃      | 90℃                       | 105℃               | 0℃~90℃                                                             |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                |          |                           |                    |                                                                    |
|                       | 難燃性<br>Flame retardant                  | VW-1 for CT use (UL 1685)                                   | VW-1     | VW-1 for CT use (UL 1685) | FT1                | EN 50265-2-1 (IEC 60332-1)                                         |
| 構造<br>Construction    | 導体<br>Conductor                         | ASTM B 3                                                    |          |                           |                    | IEC 60228 Class 6                                                  |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別2」参照<br>Heat resistant PVC/See core identification |          |                           |                    |                                                                    |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                      |          |                           |                    |                                                                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey    |          |                           |                    |                                                                    |



| ケーブル構造 CABLE CONSTRUCTION |                                                          |                                                         |                                      |                         |                                       |                              |                                      |                                                                     |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|--------------------------------------|-------------------------|---------------------------------------|------------------------------|--------------------------------------|---------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross sectional area<br>mm <sup>2</sup> | 導体構成/〈外径〉<br>Conductor composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of insulation<br>mm | 対数<br>No. of pairs<br>対 | 仕上外径<br>Approx.Overall diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying Capacities(At30℃)<br>A |
| 4441 1001401              | 0.14mm <sup>2</sup> /26AWG                               | 27/0.08<br>(0.5mm)                                      | 1.1                                  | 1P                      | 4.4                                   | 28                           | 132                                  | 3.6                                                                 |
| 4441 1001402              |                                                          |                                                         |                                      | 2P                      | 5.9                                   | 45                           |                                      | 2.7                                                                 |
| 4441 1001403              |                                                          |                                                         |                                      | 3P                      | 6.2                                   | 51                           |                                      | 2.3                                                                 |
| 4441 1001404              |                                                          |                                                         |                                      | 4P                      | 6.7                                   | 60                           |                                      | 2.0                                                                 |
| 4441 1001405              |                                                          |                                                         |                                      | 5P                      | 7.2                                   | 69                           |                                      | 1.9                                                                 |
| 4441 1001406              |                                                          |                                                         |                                      | 6P                      | 8.0                                   | 83                           |                                      | 1.8                                                                 |
| 4441 1001407              |                                                          |                                                         |                                      | 7P                      | 8.0                                   | 85                           |                                      | 1.6                                                                 |
| 4441 1001408              |                                                          |                                                         |                                      | 8P                      | 8.5                                   | 97                           |                                      | 1.5                                                                 |
| 4441 1001410              |                                                          |                                                         |                                      | 10P                     | 9.6                                   | 115                          |                                      | 1.4                                                                 |
| 4441 1001412              |                                                          |                                                         |                                      | 12P                     | 9.9                                   | 129                          |                                      | 1.3                                                                 |
| 4441 1001416              |                                                          |                                                         |                                      | 16P                     | 11.1                                  | 161                          |                                      | 1.2                                                                 |
| 4441 1001420              |                                                          |                                                         |                                      | 20P                     | 12.5                                  | 198                          |                                      | 1.1                                                                 |
| 4441 1002501              | 0.25mm <sup>2</sup> /24AWG                               | 48/0.08<br>(0.7mm)                                      | 1.5                                  | 1P                      | 5.2                                   | 39                           | 75.4                                 | 5.2                                                                 |
| 4441 1002502              |                                                          |                                                         |                                      | 2P                      | 7.5                                   | 66                           |                                      | 3.9                                                                 |
| 4441 1002503              |                                                          |                                                         |                                      | 3P                      | 7.9                                   | 77                           |                                      | 3.2                                                                 |
| 4441 1002504              |                                                          |                                                         |                                      | 4P                      | 8.6                                   | 94                           |                                      | 2.9                                                                 |
| 4441 1002505              |                                                          |                                                         |                                      | 5P                      | 9.5                                   | 112                          |                                      | 2.7                                                                 |
| 4441 1002506              |                                                          |                                                         |                                      | 6P                      | 10.5                                  | 135                          |                                      | 2.6                                                                 |
| 4441 1002507              |                                                          |                                                         |                                      | 7P                      | 10.5                                  | 139                          |                                      | 2.3                                                                 |
| 4441 1002508              |                                                          |                                                         |                                      | 8P                      | 11.1                                  | 158                          |                                      | 2.2                                                                 |
| 4441 1002510              |                                                          |                                                         |                                      | 10P                     | 12.6                                  | 188                          |                                      | 2.0                                                                 |
| 4441 1002512              |                                                          |                                                         |                                      | 12P                     | 13.0                                  | 208                          |                                      | 1.9                                                                 |
| 4441 1002516              |                                                          |                                                         |                                      | 16P                     | 14.7                                  | 270                          |                                      | 1.7                                                                 |
| 4441 1002520              |                                                          |                                                         |                                      | 20P                     | 16.5                                  | 333                          |                                      | 1.5                                                                 |
| 4441 1003401              | 0.34mm <sup>2</sup> /22AWG                               | 68/0.08<br>(0.85mm)                                     | 1.65                                 | 1P                      | 5.5                                   | 43                           | 55.4                                 | 6.0                                                                 |
| 4441 1003402              |                                                          |                                                         |                                      | 2P                      | 8.0                                   | 75                           |                                      | 4.5                                                                 |
| 4441 1003403              |                                                          |                                                         |                                      | 3P                      | 8.5                                   | 90                           |                                      | 3.8                                                                 |
| 4441 1003404              |                                                          |                                                         |                                      | 4P                      | 9.4                                   | 112                          |                                      | 3.4                                                                 |
| 4441 1003405              |                                                          |                                                         |                                      | 5P                      | 10.4                                  | 137                          |                                      | 3.1                                                                 |
| 4441 1003406              |                                                          |                                                         |                                      | 6P                      | 11.2                                  | 156                          |                                      | 3.0                                                                 |
| 4441 1003407              |                                                          |                                                         |                                      | 7P                      | 11.2                                  | 161                          |                                      | 2.7                                                                 |
| 4441 1003408              |                                                          |                                                         |                                      | 8P                      | 12.1                                  | 192                          |                                      | 2.6                                                                 |
| 4441 1003410              |                                                          |                                                         |                                      | 10P                     | 13.8                                  | 228                          |                                      | 2.3                                                                 |
| 4441 1003412              |                                                          |                                                         |                                      | 12P                     | 14.2                                  | 253                          |                                      | 2.2                                                                 |
| 4441 1003416              |                                                          |                                                         |                                      | 16P                     | 15.8                                  | 321                          |                                      | 1.9                                                                 |
| 4441 1003420              |                                                          |                                                         |                                      | 20P                     | 18.0                                  | 404                          |                                      | 1.8                                                                 |
| 4441 1005001              | 0.5mm <sup>2</sup> /20AWG                                | 110/0.08<br>(1.1mm)                                     | 1.9                                  | 1P                      | 6.0                                   | 51                           | 34.6                                 | 8.1                                                                 |
| 4441 1005002              |                                                          |                                                         |                                      | 2P                      | 9.1                                   | 98                           |                                      | 6.0                                                                 |
| 4441 1005003              |                                                          |                                                         |                                      | 3P                      | 9.6                                   | 116                          |                                      | 5.1                                                                 |
| 4441 1005004              |                                                          |                                                         |                                      | 4P                      | 10.6                                  | 145                          |                                      | 4.5                                                                 |
| 4441 1005005              |                                                          |                                                         |                                      | 5P                      | 11.5                                  | 171                          |                                      | 4.2                                                                 |
| 4441 1005006              |                                                          |                                                         |                                      | 6P                      | 12.7                                  | 205                          |                                      | 4.1                                                                 |
| 4441 1005007              |                                                          |                                                         |                                      | 7P                      | 12.7                                  | 213                          |                                      | 3.7                                                                 |
| 4441 1005008              |                                                          |                                                         |                                      | 8P                      | 13.7                                  | 252                          |                                      | 3.5                                                                 |
| 4441 1005010              |                                                          |                                                         |                                      | 10P                     | 15.6                                  | 300                          |                                      | 3.1                                                                 |
| 4441 1005012              |                                                          |                                                         |                                      | 12P                     | 16.2                                  | 343                          |                                      | 2.9                                                                 |
| 4441 1005016              |                                                          |                                                         |                                      | 16P                     | 18.1                                  | 436                          |                                      | 2.6                                                                 |
| 4441 1005020              |                                                          |                                                         |                                      | 20P                     | 20.5                                  | 547                          |                                      | 2.4                                                                 |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

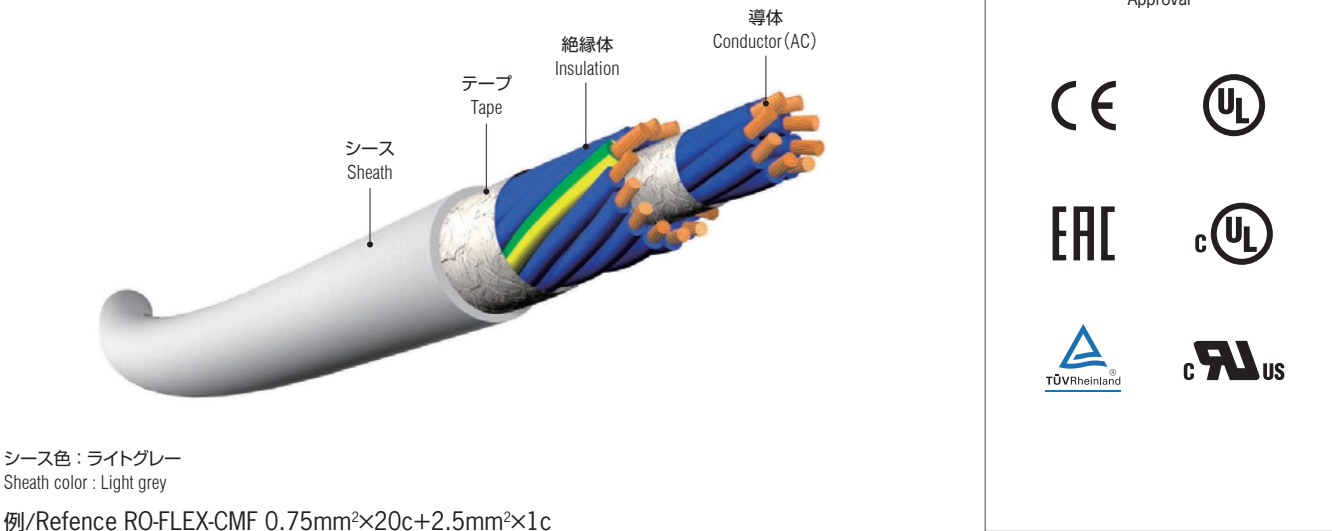
●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

RO-FLEX-CMF

Robot Cable. Especially Purpose for Auto Mobile Industry.  
Communications Circuits cable NEC Article 800, 805.

WORLD WIDE STANDARD CABLE  
Listing-Series

北米市場/North American Market



シース色 : ライトグレー  
Sheath color : Light grey

例/Refence RO-FLEX-CMF 0.75mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部

2. 信号線

3. 通信線(ケーブルトレイ配線用)

4. Class2回路など

1. Constant movement

2. Signal line

3. Communication line for tray cable

4. Power-limited circuits (Class2)

特 長 Characteristics

UL, c-UL, NFPA, EAC, CE, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、細径でULのListed対応であり、従来のRecognized(AWM)と比べても同等の外径となっています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX-CMF series enable to simplify the design and efficient storage for the reduction of costs due to UL, c-UL, NFPA, EAC,CE and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
They are small diameter Listed products equal with the Recognized(AWM).  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | (UL)                                                                              | UL       | c(UL)                        | c-UL                  | CE                            | EAC                                                                                 | PSE                           |
|-----------------------|-----------------------------------------|-----------------------------------------------------------------------------------|----------|------------------------------|-----------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | E 308483                                                                          | E 194236 | E 308483                     | E 194236              | J 50498820                    | RU C-JP.A.14.46.<br>B.17404/20                                                      | JD 60154183                   |
|                       | 適応規格<br>Standard                        | UL 444                                                                            | UL 758   | CSA C22.2<br>No.214          | CSA C22.2<br>No.210   | EN 50525                      | ГОСТ 24334-80                                                                       | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation           | CM                                                                                | 2464     | CM                           | AWM I/II<br>Group A/B | A05V2V5-F                     | ---                                                                                 | (PS)/E                        |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300V                                                                              | 300V     | 300V                         | 300V                  | 300/500V                      | 1000V                                                                               | 300/500V                      |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                          |          |                              |                       |                               |                                                                                     |                               |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                 |          |                              |                       |                               |                                                                                     |                               |
|                       | 使用温度<br>Temperature range               | 90℃                                                                               | 80℃      | 90℃                          | 105℃                  | 0℃～90℃                        | 100℃                                                                                | －15℃～90℃                      |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                      |          |                              |                       |                               |                                                                                     |                               |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | VW-1 for CT use<br>(UL 1685)                                                      | VW-1     | VW-1 for CT use<br>(UL 1685) | FT1                   | EN 50265-2-1<br>(IEC 60332-1) | Fire Approval                                                                       | EN 50265-2-1<br>(IEC 60332-1) |
|                       | 導体<br>Conductor                         | ASTM B 3                                                                          |          |                              |                       | IEC 60228 Class 6             |                                                                                     |                               |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/青/ナニ/バリング白+緑/黄※<br>Heat resistant PVC/Blue core with white numbering + G/Y※ |          |                              |                       |                               | 2c, 3c, 4cはアース線(緑/黄)無しです。<br>The cable of 2c, 3c and 4c are excluding Green/Yellow. |                               |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー<br>Oil and Heat resistant PVC/Light grey                          |          |                              |                       |                               |                                                                                     |                               |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup>  | 導体構成/外径<br>Conductor<br>composition/<br><diameter><br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数/対数<br>No. of cores/<br>pairs<br>芯/対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|--------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|----------------------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 7650 0007502        | 0.75mm <sup>2</sup> /18AWG                                   | 167/0.08〈1.3〉                                            | 2.3                                     | 2c                                     | 6.3                                      | 46                           | 21.8                                    | 8.8                                                                    |
| 7650 0007503        | 0.75mm <sup>2</sup> /18AWG                                   | 167/0.08〈1.3〉                                            | 2.3                                     | 3c                                     | 6.7                                      | 60                           | 21.8                                    | 7.7                                                                    |
| 7650 0007504        | 0.75mm <sup>2</sup> /18AWG                                   | 167/0.08〈1.3〉                                            | 2.3                                     | 4c                                     | 7.5                                      | 78                           | 21.8                                    | 7.2                                                                    |
| 7660 0007508        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 7c<br>1c                               | 11.1                                     | 176                          | 21.8<br>7.98                            | 6.1                                                                    |
| 7660 0007511        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 10c<br>1c                              | 12.7                                     | 220                          | 21.8<br>7.98                            | 5.5                                                                    |
| 7660 0007513        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 12c<br>1c                              | 13.8                                     | 256                          | 21.8<br>7.98                            | 5.0                                                                    |
| 7660 0007521        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 20c<br>1c                              | 17.1                                     | 394                          | 21.8<br>7.98                            | 4.4                                                                    |
| 7661 0007525        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 12P<br>1c                              | 19.7                                     | 478                          | 21.8<br>7.98                            | 3.3                                                                    |
| 7661 0007541        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08〈1.3〉<br>7/70/0.08〈2.3〉                          | 2.3<br>3.3                              | 20P<br>1c                              | 23.8                                     | 747                          | 21.8<br>7.98                            | 3.3                                                                    |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

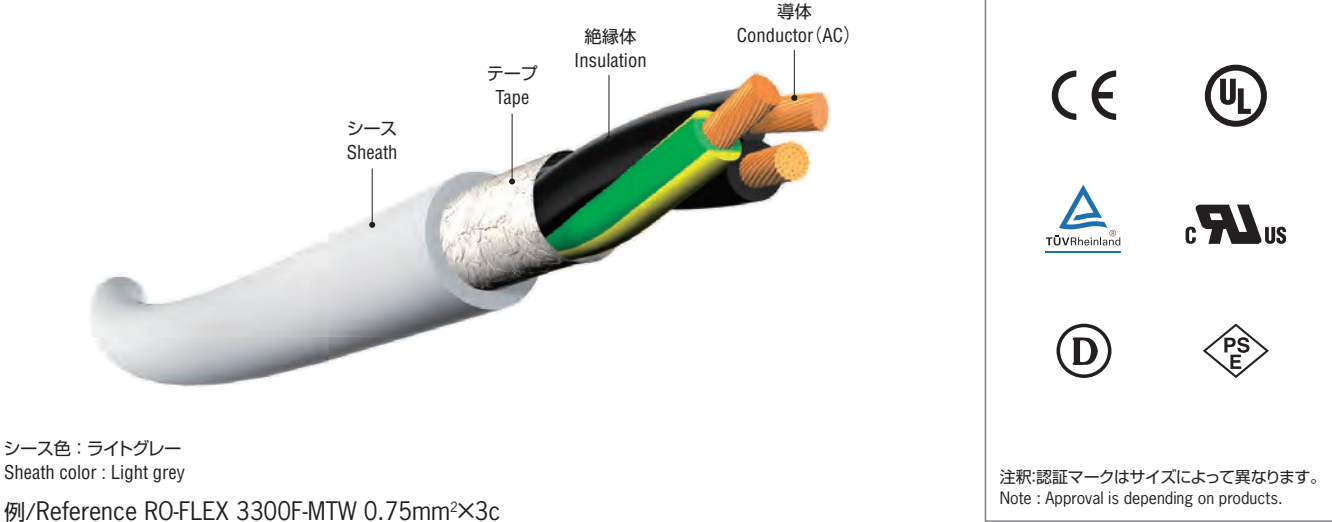
|                              |      |       |       |       |       |       |       |       |       |       |       |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

RO-FLEX 3300F-MTW

Robot cable. Oil resistant PVC cable with two or more conductors.  
Machine Tool Wire and High Voltage Cables. Especially Purpose For NFPA 79 & NFPA 70.

北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 3300F-MTW 0.75mm²×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。 Refer to technical data.

用 途 Application

1. 可動部  
2. 機器内部・外部配線  
3. 電源線

1. Constant movement  
2. Internal and External wiring  
3. Power line

特 長 Characteristics

CE, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

RO-FLEX 3300F-MTW series enable to simplify the design and efficient storage for the reduction of costs due to CE, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                                 | (UL)             | UL       | c-UL                | PSE <sup>※</sup>                                                 |
|-----------------------|-----------------------------------------|------------------------------------------------------------------------------------|------------------|----------|---------------------|------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | R 50010540<br>J 50010525                                                           | E 209359         | E 194236 | E 194236            | JD 60154182<br>JD 60154183                                       |
|                       | 適応規格<br>Standard                        | EN 50525                                                                           | UL 1063          | UL 758   | CSA C22.2<br>No.127 | 電気用品安全法<br>Denan law                                             |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                          | MTW              | 2586     | TEW                 | (PS)E                                                            |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V                                                                           | 600V             | 600V     | 600V                | 300/500V                                                         |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                           |                  |          |                     |                                                                  |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                  |                  |          |                     |                                                                  |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                                             | 90℃dry<br>60℃wet | 105℃     | 105℃                | 0℃～90℃                                                           |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                       |                  |          |                     |                                                                  |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                         | VW-1             | VW-1     | FT1                 | EN 50265-2-1 (IEC 60332-1)                                       |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 6                                                                  | ASTM B 3         |          |                     | IEC 60228 Class 6                                                |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄<br>Heat resistant PVC/Black core with white numbering + G/Y    |                  |          |                     | 2cはアース線(緑/黄)無しです。<br>The cable of 2c are excluding Green/Yellow. |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー (N7)<br>Oil and Heat resistant PVC/Light grey (Mansel number : N7) |                  |          |                     |                                                                  |

※電気用品安全法は0.75mm<sup>2</sup>(18AWG)以上のみ適応されています。※Denan law is applicable to 0.75mm<sup>2</sup>(18AWG) and more.

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 3350 0005002        | 0.5mm²/20AWG                                    | 110/0.08<br>(1.0mm)                                        | 2.6                                     | 2c                      | 7.7                                      | 61                           | 34.6                                    | 6.4                                                                    |
| 3350 0005003        |                                                 |                                                            |                                         | 3c                      | 8.1                                      | 75                           |                                         | 5.6                                                                    |
| 3350 0005004        |                                                 |                                                            |                                         | 4c                      | 8.8                                      | 91                           |                                         | 5.2                                                                    |
| 3350 0005005        |                                                 |                                                            |                                         | 5c                      | 9.5                                      | 108                          |                                         | 4.8                                                                    |
| 3350 0005006        |                                                 |                                                            |                                         | 6c                      | 10.3                                     | 125                          |                                         | 4.4                                                                    |
| 3350 0005007        |                                                 |                                                            |                                         | 7c                      | 11.2                                     | 144                          |                                         | 4.4                                                                    |
| 3350 0005008        |                                                 |                                                            |                                         | 8c                      | 12.0                                     | 163                          |                                         | 4.0                                                                    |
| 3350 0005010        |                                                 |                                                            |                                         | 10c                     | 12.9                                     | 184                          |                                         | 4.0                                                                    |
| 3350 0005012        |                                                 |                                                            |                                         | 12c                     | 14.1                                     | 235                          |                                         | 3.6                                                                    |
| 3350 0005016        |                                                 |                                                            |                                         | 16c                     | 15.5                                     | 293                          |                                         | 3.2                                                                    |
| 3350 0005018        | 0.75mm²/18AWG                                   | 167/0.08<br>(1.3mm)                                        | 2.9                                     | 18c                     | 16.3                                     | 323                          | 21.8                                    | 3.2                                                                    |
| 3350 0005020        |                                                 |                                                            |                                         | 20c                     | 17.2                                     | 356                          |                                         | 3.2                                                                    |
| 3350 0007502        |                                                 |                                                            |                                         | 2c                      | 8.3                                      | 72                           |                                         | 8.8                                                                    |
| 3350 0007503        |                                                 |                                                            |                                         | 3c                      | 8.8                                      | 90                           |                                         | 7.7                                                                    |
| 3350 0007504        |                                                 |                                                            |                                         | 4c                      | 9.5                                      | 110                          |                                         | 7.2                                                                    |
| 3350 0007505        |                                                 |                                                            |                                         | 5c                      | 10.3                                     | 131                          |                                         | 6.6                                                                    |
| 3350 0007506        |                                                 |                                                            |                                         | 6c                      | 11.2                                     | 154                          |                                         | 6.1                                                                    |
| 3350 0007507        |                                                 |                                                            |                                         | 7c                      | 12.2                                     | 178                          |                                         | 6.1                                                                    |
| 3350 0007508        |                                                 |                                                            |                                         | 8c                      | 13.3                                     | 207                          |                                         | 5.5                                                                    |
| 3350 0007510        |                                                 |                                                            |                                         | 10c                     | 14.9                                     | 256                          |                                         | 5.5                                                                    |
| 3350 0007512        | 1.0mm²/16AWG                                    | 7/27/0.08<br>(1.4mm)                                       | 3.0                                     | 12c                     | 15.4                                     | 289                          | 19.5                                    | 5.0                                                                    |
| 3350 0007516        |                                                 |                                                            |                                         | 16c                     | 16.9                                     | 363                          |                                         | 4.4                                                                    |
| 3350 0007518        |                                                 |                                                            |                                         | 18c                     | 17.8                                     | 403                          |                                         | 4.4                                                                    |
| 3350 0007520        |                                                 |                                                            |                                         | 20c                     | 18.8                                     | 444                          |                                         | 4.4                                                                    |
| 3350 0010002        |                                                 |                                                            |                                         | 2c                      | 8.5                                      | 76                           |                                         | 18.0                                                                   |
| 3350 0010003        |                                                 |                                                            |                                         | 3c                      | 9.0                                      | 95                           |                                         | 18.0                                                                   |
| 3350 0010004        |                                                 |                                                            |                                         | 4c                      | 9.8                                      | 117                          |                                         | 14.4                                                                   |
| 3350 0010005        |                                                 |                                                            |                                         | 5c                      | 10.6                                     | 140                          |                                         | 14.4                                                                   |
| 3350 0010006        |                                                 |                                                            |                                         | 6c                      | 11.5                                     | 164                          |                                         | 14.4                                                                   |
| 3350 0010007        |                                                 |                                                            |                                         | 7c                      | 12.6                                     | 190                          |                                         | 12.6                                                                   |
| 3350 0010008        | 1.5mm²/14AWG                                    | 7/41/0.08<br>(1.7mm)                                       | 3.3                                     | 8c                      | 14.3                                     | 242                          | 13.3                                    | 12.6                                                                   |
| 3350 0010010        |                                                 |                                                            |                                         | 10c                     | 15.3                                     | 273                          |                                         | 9.0                                                                    |
| 3350 0010012        |                                                 |                                                            |                                         | 12c                     | 15.8                                     | 309                          |                                         | 9.0                                                                    |
| 3350 0010016        |                                                 |                                                            |                                         | 16c                     | 17.4                                     | 389                          |                                         | 9.0                                                                    |
| 3350 0010018        |                                                 |                                                            |                                         | 18c                     | 18.3                                     | 432                          |                                         | 9.0                                                                    |
| 3350 0010020        |                                                 |                                                            |                                         | 20c                     | 19.5                                     | 485                          |                                         | 9.0                                                                    |
| 3350 0015002        |                                                 |                                                            |                                         | 2c                      | 9.1                                      | 91                           |                                         | 24                                                                     |
| 3350 0015003        |                                                 |                                                            |                                         | 3c                      | 9.6                                      | 116                          |                                         | 24                                                                     |
| 3350 0015004        |                                                 |                                                            |                                         | 4c                      | 10.5                                     | 144                          |                                         | 19                                                                     |
| 3350 0015005        |                                                 |                                                            |                                         | 5c                      | 11.4                                     | 173                          |                                         | 19                                                                     |
| 3350 0015006        | 2.5mm²/12AWG                                    | 7/70/0.08<br>(2.3mm)                                       | 3.9                                     | 6c                      | 12.4                                     | 204                          | 7.98                                    | 19                                                                     |
| 3350 0015007        |                                                 |                                                            |                                         | 7c                      | 14.4                                     | 263                          |                                         | 17                                                                     |
| 3350 0015008        |                                                 |                                                            |                                         | 8c                      | 15.4                                     | 297                          |                                         | 17                                                                     |
| 3350 0015010        |                                                 |                                                            |                                         | 10c                     | 16.5                                     | 339                          |                                         | 12                                                                     |
| 3350 0015012        |                                                 |                                                            |                                         | 12c                     | 17.0                                     | 386                          |                                         | 12                                                                     |
| 3350 0015016        |                                                 |                                                            |                                         | 16c                     | 18.8                                     | 491                          |                                         | 12                                                                     |
| 3350 0015018        |                                                 |                                                            |                                         | 18c                     | 20.0                                     | 555                          |                                         | 12                                                                     |
| 3350 0015020        |                                                 |                                                            |                                         | 20c                     | 21.3                                     | 622                          |                                         | 12                                                                     |
| 3350 0025002        |                                                 |                                                            |                                         | 2c                      | 10.3                                     | 132                          | 4.95                                    | 30                                                                     |
| 3350 0025003        | 4.0mm²/10AWG                                    | 7/110/0.08<br>(2.8mm)                                      | 4.6                                     | 3c                      | 10.9                                     | 167                          |                                         | 30                                                                     |
| 3350 0025004        |                                                 |                                                            |                                         | 4c                      | 11.9                                     | 207                          |                                         | 24                                                                     |
| 3350 0025005        |                                                 |                                                            |                                         | 5c                      | 13.0                                     | 242                          |                                         | 24                                                                     |
| 3350 0025006        |                                                 |                                                            |                                         | 6c                      | 15.0                                     | 313                          |                                         | 24                                                                     |
| 3350 0025007        |                                                 |                                                            |                                         | 7c                      | 16.4                                     | 363                          |                                         | 21                                                                     |
| 3350 0025008        |                                                 |                                                            |                                         | 8c                      | 17.6                                     | 412                          |                                         | 21                                                                     |
| 3350 0025010        |                                                 |                                                            |                                         | 10c                     | 19.1                                     | 483                          |                                         | 15                                                                     |
| 3350 0025012        |                                                 |                                                            |                                         | 12c                     | 19.7                                     | 554                          |                                         | 15                                                                     |
| 3350 0025016        |                                                 |                                                            |                                         | 16c                     | 22.6                                     | 751                          |                                         | 15                                                                     |
| 3350 0025018        |                                                 |                                                            |                                         | 18c                     | 23.8                                     | 834                          |                                         | 15                                                                     |
| 3350 0025020        | 4.0mm²/12AWG                                    | 7/110/0.08<br>(2.8mm)                                      | 4.6                                     | 20c                     | 25.1                                     | 920                          | 4.95                                    | 15                                                                     |
| 3350 0040002        |                                                 |                                                            |                                         | 2c                      | 11.7                                     | 179                          |                                         | 35                                                                     |
| 3350 0040003        |                                                 |                                                            |                                         | 3c                      | 12.4                                     | 229                          |                                         | 35                                                                     |
| 3350 0040004        |                                                 |                                                            |                                         | 4c                      | 14.4                                     | 315                          |                                         | 28                                                                     |
| 3350 0040005        | 4.0mm²/12AWG                                    | 7/110/0.08<br>(2.8mm)                                      | 4.6                                     | 5c                      | 15.7                                     | 367                          |                                         | 28                                                                     |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>～0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

【1.0mm<sup>2</sup>～4.0mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

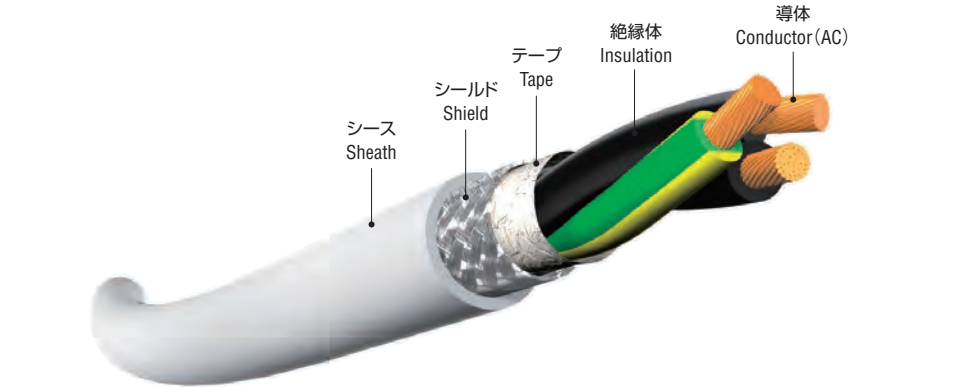
|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

RO-FLEX 3300FS-MTW

Robot cable. Screened wires. Oil resistant PVC cable with two or more conductors. Machine Tool Wire and High Voltage Cables. Especially Purpose For NFPA 79 & NFPA 70.

北米市場/North American Market EMC対策/To keep the EMC



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 3300FS-MTW 0.75mm²×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | B                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部

2. 機器内部・外部配線

3. 電源線

4. 耐ノイズ環境

1. Constant movement

2. Internal and External wiring

3. Power line

4. Noise resistance

特 長 Characteristics

CE, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 3300FS-MTW series enable to simplify the design and efficient storage for the reduction of costs due to CE, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                         | CE                                                                               | (UL)             | UL       | c-UL                | PSE <sup>※</sup>                                                 |
|-----------------------|-----------------------------------------|----------------------------------------------------------------------------------|------------------|----------|---------------------|------------------------------------------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | J 50010534<br>J 50010549                                                         | E 209359         | E 194236 | E 194236            | JD 60154182<br>JD 60154183                                       |
|                       | 適応規格<br>Standard                        | EN 50525                                                                         | UL 1063          | UL 758   | CSA C22.2<br>No.127 | 電気用品安全法<br>Denan law                                             |
|                       | ケーブルデザイン<br>Cable designation           | A05V2V5-F                                                                        | MTW              | 2586     | TEW                 | (PS)E                                                            |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage           | 300/500V                                                                         | 600V             | 600V     | 600V                | 300/500V                                                         |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                         |                  |          |                     |                                                                  |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km (at 20℃)                                                                |                  |          |                     |                                                                  |
|                       | 使用温度<br>Temperature range               | 0℃～90℃                                                                           | 90℃dry<br>60℃wet | 105℃     | 105℃                | 0℃～90℃                                                           |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                     |                  |          |                     |                                                                  |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 6                                                                | ASTM B 3         |          |                     | IEC 60228 Class 6                                                |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白+緑/黄<br>Heat resistant PVC/Black core with white numbering + G/Y  |                  |          |                     | 2cはアース線(緑/黄)無しです。<br>The cable of 2c are excluding Green/Yellow. |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                           |                  |          |                     |                                                                  |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー(N7)<br>Oil and Heat resistant PVC/Light grey(Mansel number : N7) |                  |          |                     |                                                                  |

※電気用品安全法は0.75mm<sup>2</sup>(18AWG)以上のみ適応されています。※Denan law is applicable to 0.75mm<sup>2</sup>(18AWG) and more.

認証  
Approval

CE

UL

TÜVRheinland

cULus

D

PSE

注釈:認証マークはサイズによって異なります。  
Note : Approval is depending on products.

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 3350 1005002        | 0.5mm²/20AWG                                    | 110/0.08<br>〈1.0mm〉                                        | 2.6                                     | 2c                      | 8.2                                      | 83                           | 34.6                                    | 6.4                                                                    |
| 3350 1005003        |                                                 |                                                            |                                         | 3c                      | 8.6                                      | 98                           |                                         | 5.6                                                                    |
| 3350 1005004        |                                                 |                                                            |                                         | 4c                      | 9.3                                      | 119                          |                                         | 5.2                                                                    |
| 3350 1005005        |                                                 |                                                            |                                         | 5c                      | 10.0                                     | 136                          |                                         | 4.8                                                                    |
| 3350 1005006        |                                                 |                                                            |                                         | 6c                      | 10.8                                     | 157                          |                                         | 4.4                                                                    |
| 3350 1005007        |                                                 |                                                            |                                         | 7c                      | 11.7                                     | 179                          |                                         | 4.4                                                                    |
| 3350 1005008        |                                                 |                                                            |                                         | 8c                      | 12.5                                     | 200                          |                                         | 4.0                                                                    |
| 3350 1005010        |                                                 |                                                            |                                         | 10c                     | 14.2                                     | 251                          |                                         | 4.0                                                                    |
| 3350 1005012        |                                                 |                                                            |                                         | 12c                     | 14.6                                     | 277                          |                                         | 3.6                                                                    |
| 3350 1005016        |                                                 |                                                            |                                         | 16c                     | 16.0                                     | 340                          |                                         | 3.2                                                                    |
| 3350 1005018        |                                                 |                                                            |                                         | 18c                     | 16.8                                     | 375                          |                                         | 3.2                                                                    |
| 3350 1005020        |                                                 |                                                            |                                         | 20c                     | 17.7                                     | 410                          |                                         | 3.2                                                                    |
| 3350 1007502        | 0.75mm²/18AWG                                   | 167/0.08<br>〈1.3mm〉                                        | 2.9                                     | 2c                      | 8.8                                      | 97                           | 21.8                                    | 8.8                                                                    |
| 3350 1007503        |                                                 |                                                            |                                         | 3c                      | 9.3                                      | 118                          |                                         | 7.7                                                                    |
| 3350 1007504        |                                                 |                                                            |                                         | 4c                      | 10.0                                     | 138                          |                                         | 7.2                                                                    |
| 3350 1007505        |                                                 |                                                            |                                         | 5c                      | 10.8                                     | 163                          |                                         | 6.6                                                                    |
| 3350 1007506        |                                                 |                                                            |                                         | 6c                      | 11.7                                     | 188                          |                                         | 6.1                                                                    |
| 3350 1007507        |                                                 |                                                            |                                         | 7c                      | 12.7                                     | 215                          |                                         | 6.1                                                                    |
| 3350 1007508        |                                                 |                                                            |                                         | 8c                      | 14.4                                     | 269                          |                                         | 5.5                                                                    |
| 3350 1007510        |                                                 |                                                            |                                         | 10c                     | 15.4                                     | 301                          |                                         | 5.5                                                                    |
| 3350 1007512        |                                                 |                                                            |                                         | 12c                     | 15.9                                     | 337                          |                                         | 5.0                                                                    |
| 3350 1007516        |                                                 |                                                            |                                         | 16c                     | 17.4                                     | 416                          |                                         | 4.4                                                                    |
| 3350 1007518        |                                                 |                                                            |                                         | 18c                     | 18.3                                     | 459                          |                                         | 4.4                                                                    |
| 3350 1007520        |                                                 |                                                            |                                         | 20c                     | 19.5                                     | 514                          |                                         | 4.4                                                                    |
| 3350 1010002        | 1.0mm²/18AWG                                    | 7/27/0.08<br>〈1.4mm〉                                       | 3.0                                     | 2c                      | 9.0                                      | 101                          | 19.5                                    | 18.0                                                                   |
| 3350 1010003        |                                                 |                                                            |                                         | 3c                      | 9.5                                      | 123                          |                                         | 18.0                                                                   |
| 3350 1010004        |                                                 |                                                            |                                         | 4c                      | 10.3                                     | 149                          |                                         | 14.4                                                                   |
| 3350 1010005        |                                                 |                                                            |                                         | 5c                      | 11.1                                     | 172                          |                                         | 14.4                                                                   |
| 3350 1010006        |                                                 |                                                            |                                         | 6c                      | 12.0                                     | 200                          |                                         | 14.4                                                                   |
| 3350 1010007        |                                                 |                                                            |                                         | 7c                      | 13.3                                     | 236                          |                                         | 12.6                                                                   |
| 3350 1010008        |                                                 |                                                            |                                         | 8c                      | 14.8                                     | 285                          |                                         | 12.6                                                                   |
| 3350 1010010        |                                                 |                                                            |                                         | 10c                     | 15.8                                     | 320                          |                                         | 9.0                                                                    |
| 3350 1010012        |                                                 |                                                            |                                         | 12c                     | 16.3                                     | 359                          |                                         | 9.0                                                                    |
| 3350 1010016        |                                                 |                                                            |                                         | 16c                     | 17.9                                     | 445                          |                                         | 9.0                                                                    |
| 3350 1010018        |                                                 |                                                            |                                         | 18c                     | 18.8                                     | 491                          |                                         | 9.0                                                                    |
| 3350 1010020        |                                                 |                                                            |                                         | 20c                     | 20.0                                     | 547                          |                                         | 9.0                                                                    |
| 3350 1015002        | 1.5mm²/16AWG                                    | 7/41/0.08<br>〈1.7mm〉                                       | 3.3                                     | 2c                      | 9.6                                      | 119                          | 13.3                                    | 24                                                                     |
| 3350 1015003        |                                                 |                                                            |                                         | 3c                      | 10.1                                     | 147                          |                                         | 24                                                                     |
| 3350 1015004        |                                                 |                                                            |                                         | 4c                      | 11.0                                     | 176                          |                                         | 19                                                                     |
| 3350 1015005        |                                                 |                                                            |                                         | 5c                      | 11.9                                     | 208                          |                                         | 19                                                                     |
| 3350 1015006        |                                                 |                                                            |                                         | 6c                      | 12.9                                     | 242                          |                                         | 19                                                                     |
| 3350 1015007        |                                                 |                                                            |                                         | 7c                      | 14.9                                     | 307                          |                                         | 17                                                                     |
| 3350 1015008        |                                                 |                                                            |                                         | 8c                      | 15.9                                     | 345                          |                                         | 17                                                                     |
| 3350 1015010        |                                                 |                                                            |                                         | 10c                     | 17.0                                     | 391                          |                                         | 12                                                                     |
| 3350 1015012        |                                                 |                                                            |                                         | 12c                     | 17.5                                     | 439                          |                                         | 12                                                                     |
| 3350 1015016        |                                                 |                                                            |                                         | 16c                     | 19.5                                     | 560                          |                                         | 12                                                                     |
| 3350 1015018        |                                                 |                                                            |                                         | 18c                     | 20.7                                     | 628                          |                                         | 12                                                                     |
| 3350 1015020        |                                                 |                                                            |                                         | 20c                     | 22.4                                     | 721                          |                                         | 12                                                                     |
| 3350 1025002        | 2.5mm²/14AWG                                    | 7/70/0.08<br>〈2.3mm〉                                       | 3.9                                     | 2c                      | 10.8                                     | 164                          | 7.98                                    | 30                                                                     |
| 3350 1025003        |                                                 |                                                            |                                         | 3c                      | 11.4                                     | 200                          |                                         | 30                                                                     |
| 3350 1025004        |                                                 |                                                            |                                         | 4c                      | 12.4                                     | 244                          |                                         | 24                                                                     |
| 3350 1025005        |                                                 |                                                            |                                         | 5c                      | 14.3                                     | 309                          |                                         | 24                                                                     |
| 3350 1025006        |                                                 |                                                            |                                         | 6c                      | 15.5                                     | 359                          |                                         | 24                                                                     |
| 3350 1025007        |                                                 |                                                            |                                         | 7c                      | 16.9                                     | 415                          |                                         | 21                                                                     |
| 3350 1025008        |                                                 |                                                            |                                         | 8c                      | 18.1                                     | 468                          |                                         | 21                                                                     |
| 3350 1025010        |                                                 |                                                            |                                         | 10c                     | 19.6                                     | 544                          |                                         | 15                                                                     |
| 3350 1025012        |                                                 |                                                            |                                         | 12c                     | 20.2                                     | 616                          |                                         | 15                                                                     |
| 3350 1025016        |                                                 |                                                            |                                         | 16c                     | 23.1                                     | 821                          |                                         | 15                                                                     |
| 3350 1025018        |                                                 |                                                            |                                         | 18c                     | 24.3                                     | 910                          |                                         | 15                                                                     |
| 3350 1025020        |                                                 |                                                            |                                         | 20c                     | 25.6                                     | 1000                         |                                         | 15                                                                     |
| 3350 1040002        | 4.0mm²/12AWG                                    | 7/110/0.08<br>〈2.8mm〉                                      | 4.6                                     | 2c                      | 12.2                                     | 215                          | 4.95                                    | 35                                                                     |
| 3350 1040003        |                                                 |                                                            |                                         | 3c                      | 12.9                                     | 267                          |                                         | 35                                                                     |
| 3350 1040004        |                                                 |                                                            |                                         | 4c                      | 14.9                                     | 357                          |                                         | 28                                                                     |
| 3350 1040005        |                                                 |                                                            |                                         | 5c                      | 16.2                                     | 416                          |                                         | 28                                                                     |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>～0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

【1.0mm<sup>2</sup>～4.0mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

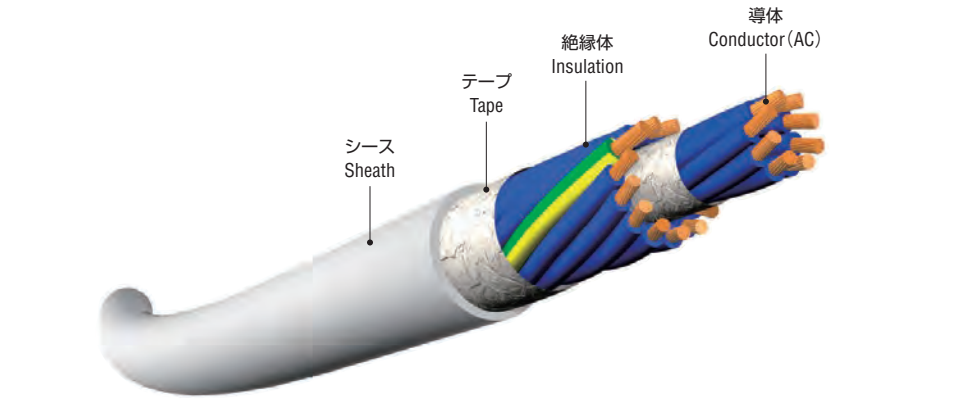
●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。 Please refer to our Homepage for the current carrying capacities in North America.

# RO-FLEX-6MDF-MTW

Robot cable. Especially Purpose for Auto Mobile Industry.

WORLD WIDE STANDARD CABLE  
Listing-Series

## 北米市場/North American Market



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX-6MDF-MTW 0.75mm<sup>2</sup>×20c+2.5mm<sup>2</sup>×1c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部  
2. 機器内部・外部配線

1. Constant movement  
2. Internal and External wiring

### 特 長 Characteristics

CE, NFPA, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX-6MDF-MTW series enable to simplify the design and efficient storage for the reduction of costs due to CE, NFPA, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

### ■認証 APPROVAL

| 項目 Item               |                                             |                  | CE                                                                               | (UL)             | UL       | c-UL               | PSE                           |
|-----------------------|---------------------------------------------|------------------|----------------------------------------------------------------------------------|------------------|----------|--------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                  |                  | J 50009996                                                                       | E 209359         | E 194236 | E 194236           | JD 60154183                   |
|                       | 適応規格<br>Standard                            |                  | EN 50525                                                                         | UL 1063          | UL 758   | CSA C22.2 No.210   | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation               |                  | A05V2V5-F                                                                        | MTW              | 2586     | AWM I/II Group A/B | (PS)E                         |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage               |                  | 300/500V                                                                         | 600V             | 600V     | 600V               | 300/500V                      |
|                       | 耐電圧<br>Test voltage                         |                  | 2500V/5分                                                                         |                  |          |                    |                               |
|                       | 絶縁抵抗<br>Insulation resistance               |                  | 200MΩ・km (at 20℃)                                                                |                  |          |                    |                               |
|                       | 使用温度<br>Temperature range                   |                  | 0℃～90℃                                                                           | 90℃dry<br>60℃wet | 105℃     | 105℃               | 0℃～90℃                        |
|                       | 曲げ半径<br>Minimum bending for radius          |                  | 6D D=ケーブル外径/Overall diameter                                                     |                  |          |                    |                               |
| 構造<br>Construction    | 難燃性<br>Flame retardant                      |                  | EN 50265-2-1<br>(IEC 60332-1)                                                    | VW-1             | VW-1     | FT1                | EN 50265-2-1<br>(IEC 60332-1) |
|                       | 導体<br>Conductor                             |                  | IEC 60228 Class 6                                                                | ASTM B 3         |          |                    | IEC 60228 Class 6             |
|                       | 絶縁/識別<br>Insulation/<br>Core identification | DCタイプ<br>DC Type | 耐熱PVC/青/ナンバリング白+緑/黄※<br>Heat resistant PVC/Blue core with white numbering + G/Y※ |                  |          |                    |                               |
|                       |                                             | ACタイプ<br>AC Type | 耐熱PVC/赤/ナンバリング白+緑/黄※<br>Heat resistant PVC/Red core with white numbering + G/Y※  |                  |          |                    |                               |
|                       | シース/シース色<br>Sheath/Sheath color             |                  | 耐油・耐熱PVC/ライトグレー(N7)<br>Oil and Heat resistant PVC/Light grey(Mansel number : N7) |                  |          |                    |                               |

※緑/黄は、2.5mm<sup>2</sup>(14AWG)になります。 ※Green/Yellow is 2.5mm<sup>2</sup>(14AWG).

### ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup>  | 導体構成/外径<br>Conductor<br>composition/<br><diameter><br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数/対数<br>No. of cores/<br>pairs<br>芯/対 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|--------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|----------------------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 6655 0007511        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08<1.3><br>7/70/0.08<2.3>                          | 2.9<br>3.9                              | 10c<br>1c                              | 15.9                                     | 297                          | 21.8<br>7.98                            | 5.5                                                                    |
| 6655 0007521        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08<1.3><br>7/70/0.08<2.3>                          | 2.9<br>3.9                              | 20c<br>1c                              | 21.1                                     | 518                          | 21.8<br>7.98                            | 4.4                                                                    |
| 6655 0007531        | 0.75mm <sup>2</sup> /18AWG<br>2.5mm <sup>2</sup> (G/Y)/14AWG | 167/0.08<1.3><br>7/70/0.08<2.3>                          | 2.9<br>3.9                              | 15P<br>1c                              | 26.3                                     | 759                          | 21.8<br>7.98                            | 3.3                                                                    |

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

●北米で使用する際の許容電流については、HP上の「許容電流資料」をご参照ください。  
Please refer to our Homepage for the current carrying capacities in North America.

# C<sup>3</sup>-Series

シーキュービックシリーズ



シーキュービックシリーズ製品一覧

C<sup>3</sup>-Series product list

| 製品名<br>Product name      | 公称断面積<br>Nominal cross sectional area |                | 電圧<br>Voltage (V)   |                      |             | 使用温度<br>Ambient temperature (℃) |              |             | 特性※<br>Characteristic* |                        |                 |                           |                           |                 | 環境<br>Environmental issue | Page No. |
|--------------------------|---------------------------------------|----------------|---------------------|----------------------|-------------|---------------------------------|--------------|-------------|------------------------|------------------------|-----------------|---------------------------|---------------------------|-----------------|---------------------------|----------|
|                          | AWG                                   | mm²            | 北米<br>North America | 欧州<br>Europe         | 中国<br>China | 北米<br>North America             | 欧州<br>Europe | 中国<br>China | 耐油性<br>Oil resistance  | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐候性<br>Weather resistance | 耐ノイズ性<br>Noise resistance | アウトガス<br>Outgas | RoHS指令<br>RoHS Directive  |          |
| RO-FLEX 8734T            | 24—22                                 | 0.2—0.3        | 600                 | 500 Peak             | 300/300     | —15～+80                         | —15～+70      | —15～+70     | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 95       |
| RO-FLEX 8734TS           | 24—18<br>16                           | 0.2—1.0<br>1.5 | 600                 | 500 Peak<br>900 Peak | 300/300     | —15～+80                         | —15～+70      | —15～+70     | A                      | B                      | B               | C                         | B                         | C               | 適合<br>Compliance          | 97       |
| RO-FLEX 22775T (DC)/(AC) | 21—16                                 | 0.5—1.5        | 600                 | 300/500              | 300/500     | —15～+80                         | —15～+70      | —15～+70     | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 99       |
| RO-FLEX 22775T           | 14                                    | 2.5            | 600                 | 300/500              | 300/500     | —15～+80                         | —15～+70      | —15～+70     | A                      | B                      | B               | C                         | D                         | C               | 適合<br>Compliance          | 101      |
| RO-FLEX 22710T           | 12—2                                  | 4.0—35         | 600                 | 300/500              | 300/500     | —15～+80                         | —15～+90      | —15～+70     | A                      | B                      | C               | C                         | D                         | C               | 適合<br>Compliance          | 103      |
| RO-FLEX 22775F (DC)/(AC) | 21—16                                 | 0.5—1.5        | 600                 | 300/500              | 300/500     | 0～+80                           | 0～+70        | 0～+70       | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 105      |
| RO-FLEX 22775F           | 14                                    | 2.5            | 600                 | 300/500              | 300/500     | 0～+80                           | 0～+70        | 0～+70       | A                      | B                      | A               | C                         | D                         | C               | 適合<br>Compliance          | 107      |

※特性 characteristic  
アウトガス Outgas P112  
耐熱性 Heat resistance P113  
耐油性 Oil resistance P114  
難燃性 Flame retardant P115  
耐屈曲性 Flexing P117  
耐ノイズ性 Noise resistance P119  
耐候性 Weather resistance P120

NBR



EAC



IEC



ブラジル、中国、ロシア向けに最適  
Especially for Brazil, China and Russia market.

細外径にてUL600Vを達成  
Small diameter for UL 600V.

安全規格適合  
(IEC, CEマーキング, NBR, CCC, EAC, UL, c-UL (CSA), PSE)  
Conformity to safety standard. (IEC, CE-marking, NBR, CCC, EAC, UL, c-UL (CSA), PSE)



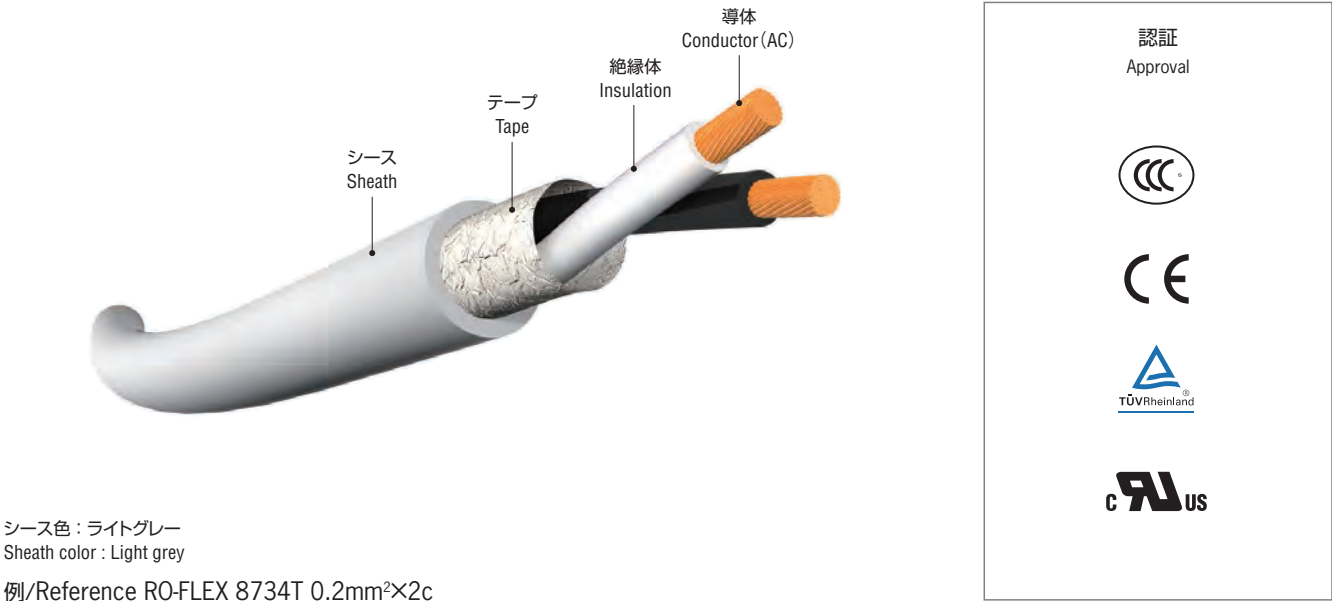
# RO-FLEX 8734T

Insulated wires for internal wiring of equipment

生産中止予定品  
2024年6月末受注分まで

WORLD WIDE STANDARD CABLE

C<sup>3</sup>-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 8734T 0.2mm<sup>2</sup>×2c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring      | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | −15℃                   | A                     | B                      | B               | D                         | 機器内配線<br>Internal | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 信号線

1. Fixed installation  
2. Signal line

## 特 長 Characteristics

CCC, CE, UL, c-UL規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適應しています。  
又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX 8734T series enable to simplify the design and efficient storage for the reduction of costs due to CCC, CE, UL, and c-UL approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
"Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVAL

| 項目 Item               |                                         | CCC                                                                                                  | CE         | UL       | c-UL               |
|-----------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------|------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | A 025981                                                                                             | J 50010985 | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | JB/T 8734                                                                                            | VDE 0812   | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | AVVR                                                                                                 | LIYY       | 2570     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/300V                                                                                             | 500V Peak  | 600V     | 600V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                             |            |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km 20℃                                                                                         |            |          |                    |
|                       | 使用温度<br>Temperature range               | -15℃～70℃                                                                                             |            |          | 80℃                |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                         |            |          |                    |
| 構造<br>Construction    | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                           |            | VW-1     | FT1                |
|                       | 導体<br>Conductor                         | IEC 60228 class 5                                                                                    |            | ASTM B 3 |                    |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別3」参照<br>Heat resistant PVC/See core identification                                          |            |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/シース色：ライトグレー (N7)<br>Heat and oil resistant PVC/Sheath color : Light grey (Mansel number:N7) |            |          |                    |

## ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60384-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
|                     |                                                             |                                                          |                                         | 芯                  |                                          |                              |                                         |                                                                        |
| 8734 0002002        | 0.2mm <sup>2</sup> (0.25mm <sup>2</sup> )<br>24AWG          | 14/0.15<br>(0.65mm)                                      | 1.45                                    | 2c                 | 4.6                                      | 24                           | 75.4                                    | 5.2                                                                    |
| 8734 0002003        |                                                             |                                                          |                                         | 3c                 | 4.8                                      | 28                           |                                         | 4.4                                                                    |
| 8734 0002004        |                                                             |                                                          |                                         | 4c                 | 5.2                                      | 34                           |                                         | 3.9                                                                    |
| 8734 0002005        |                                                             |                                                          |                                         | 5c                 | 5.6                                      | 40                           |                                         | 3.5                                                                    |
| 8734 0002006        |                                                             |                                                          |                                         | 6c                 | 6.1                                      | 47                           |                                         | 3.2                                                                    |
| 8734 0002007        |                                                             |                                                          |                                         | 7c                 | 6.6                                      | 53                           |                                         | 3.0                                                                    |
| 8734 0002010        |                                                             |                                                          |                                         | 10c                | 7.7                                      | 71                           |                                         | 2.7                                                                    |
| 8734 0002012        |                                                             |                                                          |                                         | 12c                | 7.9                                      | 80                           |                                         | 2.6                                                                    |
| 8734 0002014        |                                                             |                                                          |                                         | 14c                | 8.3                                      | 91                           |                                         | 2.3                                                                    |
| 8734 0002016        |                                                             |                                                          |                                         | 16c                | 8.9                                      | 105                          |                                         | 2.2                                                                    |
| 8734 0002019        |                                                             |                                                          |                                         | 19c                | 9.8                                      | 123                          |                                         | 2.1                                                                    |
| 8734 0002024        |                                                             |                                                          |                                         | 24c                | 11.0                                     | 152                          |                                         | 1.9                                                                    |
| 8734 0003002        | 0.3mm <sup>2</sup> (0.34mm <sup>2</sup> )<br>22AWG          | 19/0.15<br>(0.8mm)                                       | 1.6                                     | 2c                 | 4.9                                      | 27                           | 55.4                                    | 6.0                                                                    |
| 8734 0003003        |                                                             |                                                          |                                         | 3c                 | 5.2                                      | 33                           |                                         | 5.1                                                                    |
| 8734 0003004        |                                                             |                                                          |                                         | 4c                 | 5.6                                      | 40                           |                                         | 4.5                                                                    |
| 8734 0003005        |                                                             |                                                          |                                         | 5c                 | 6.0                                      | 47                           |                                         | 4.1                                                                    |
| 8734 0003006        |                                                             |                                                          |                                         | 6c                 | 6.5                                      | 55                           |                                         | 3.8                                                                    |
| 8734 0003007        |                                                             |                                                          |                                         | 7c                 | 7.1                                      | 63                           |                                         | 3.5                                                                    |
| 8734 0003010        |                                                             |                                                          |                                         | 10c                | 8.3                                      | 85                           |                                         | 3.1                                                                    |
| 8734 0003012        |                                                             |                                                          |                                         | 12c                | 8.6                                      | 97                           |                                         | 3.0                                                                    |
| 8734 0003014        |                                                             |                                                          |                                         | 14c                | 9.2                                      | 113                          |                                         | 2.7                                                                    |
| 8734 0003016        |                                                             |                                                          |                                         | 16c                | 9.6                                      | 126                          |                                         | 2.6                                                                    |
| 8734 0003019        |                                                             |                                                          |                                         | 19c                | 10.8                                     | 153                          |                                         | 2.4                                                                    |
| 8734 0003024        |                                                             |                                                          |                                         | 24c                | 12.1                                     | 189                          |                                         | 2.2                                                                    |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

## ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11～15 | 16～20 | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

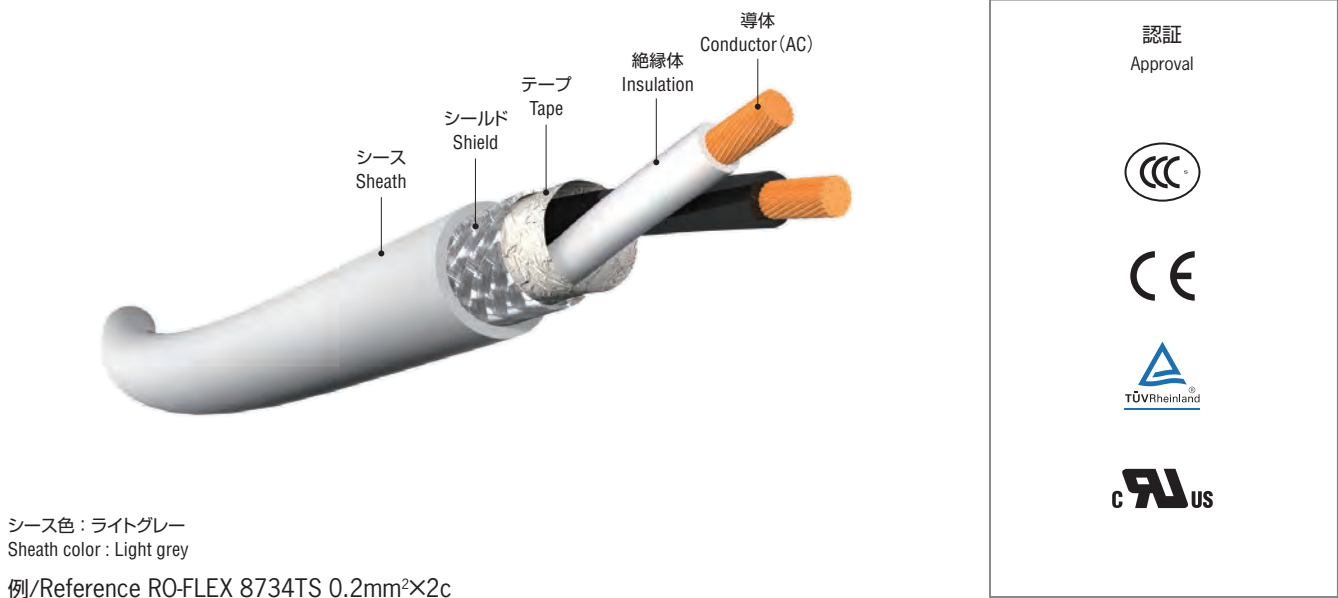
# RO-FLEX 8734TS

Screened wires

生産中止予定品  
2024年6月末受注分まで

WORLD WIDE STANDARD CABLE

C<sup>3</sup>-Series



| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                              | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|-------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | -15℃                   | A                     | B                      | B               | B                         | 電源線、機器内配線<br>及び外部連絡<br>Internal, External | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

| 用 途 Application                                                | 特 長 Characteristics                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. 固定部<br>2. 信号線<br>3. 耐ノイズ環境                                  | CCC, CE, UL, c-UL規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適應しています。<br>又、『RoHS指令』2011/65/EUに適應しています。                                                                                                          |
| 1. Fixed installation<br>2. Signal line<br>3. Noise resistance | RO-FLEX8734TS series enable to simplify the design and efficient storage for the reduction of costs due to CCC, CE, UL, and c-UL approvals.<br>The product is in conformity to Directive 2014/35/EU("Low voltage directive").<br>"Conformity to RoHS directive 2011/65/EU" |

## ■認証 APPROVAL

| 項目 Item               |                                         | CCC                                                                                                  | CE                                                                   | UL       | c-UL               |
|-----------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------|--------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | A 025981                                                                                             | J 50011069                                                           | E 194236 | E 194236           |
|                       | 適応規格<br>Standard                        | JB/T 8734                                                                                            | VDE 0812                                                             | UL 758   | CSA C22.2 No.210   |
|                       | ケーブルデザイン<br>Cable designation           | RVVP                                                                                                 | LIYCY                                                                | 2570     | AWM I/II Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/300V                                                                                             | 500V Peak : 0.2~1.0mm <sup>2</sup><br>900V Peak : 1.5mm <sup>2</sup> | 600V     | 600V               |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                             |                                                                      |          |                    |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ・km 20℃                                                                                         |                                                                      |          |                    |
|                       | 使用温度<br>Temperature range               | -15℃~70℃                                                                                             |                                                                      |          | 80℃                |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                         |                                                                      |          |                    |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1 (IEC 60332-1)                                                                           |                                                                      |          | VW-1<br>FT1        |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 5                                                                                    |                                                                      |          | ASTM B 3           |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/「識別3」参照<br>Heat resistant PVC/See core identification                                          |                                                                      |          |                    |
|                       | シールド<br>Shield                          | 編組シールド 0.12TAC<br>Braid shield 0.12TAC                                                               |                                                                      |          |                    |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/シース色：ライトグレー (N7)<br>Heat and oil resistant PVC/Sheath color : Light grey (Mansel number:N7) |                                                                      |          |                    |

## ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/外径<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
|                     |                                                             |                                                          |                                         | 芯                  |                                          |                              |                                         |                                                                        |
| 8734 1002002        | 0.2mm <sup>2</sup> (0.25mm <sup>2</sup> )<br>24AWG          | 14/0.15<br>(0.65mm)                                      | 1.45                                    | 2c                 | 5.1                                      | 37                           | 75.4                                    | 5.2                                                                    |
| 8734 1002003        |                                                             |                                                          |                                         | 3c                 | 5.3                                      | 43                           |                                         | 4.4                                                                    |
| 8734 1002004        |                                                             |                                                          |                                         | 4c                 | 5.7                                      | 49                           |                                         | 3.9                                                                    |
| 8734 1002005        |                                                             |                                                          |                                         | 5c                 | 6.1                                      | 57                           |                                         | 3.5                                                                    |
| 8734 1002006        |                                                             |                                                          |                                         | 6c                 | 6.6                                      | 65                           |                                         | 3.2                                                                    |
| 8734 1002007        |                                                             |                                                          |                                         | 7c                 | 7.1                                      | 74                           |                                         | 3.0                                                                    |
| 8734 1002010        |                                                             |                                                          |                                         | 10c                | 8.2                                      | 95                           |                                         | 2.7                                                                    |
| 8734 1002012        |                                                             |                                                          |                                         | 12c                | 8.4                                      | 104                          |                                         | 2.6                                                                    |
| 8734 1002014        |                                                             |                                                          |                                         | 14c                | 9.0                                      | 122                          |                                         | 2.3                                                                    |
| 8734 1002016        |                                                             |                                                          |                                         | 16c                | 9.4                                      | 133                          |                                         | 2.2                                                                    |
| 8734 1002019        |                                                             |                                                          |                                         | 19c                | 10.5                                     | 159                          |                                         | 2.1                                                                    |
| 8734 1002024        |                                                             |                                                          |                                         | 24c                | 11.5                                     | 187                          |                                         | 1.9                                                                    |
| 8734 1003002        | 0.3mm <sup>2</sup> (0.34mm <sup>2</sup> )<br>22AWG          | 19/0.15<br>(0.8mm)                                       | 1.6                                     | 2c                 | 5.4                                      | 41                           | 55.4                                    | 6.0                                                                    |
| 8734 1003003        |                                                             |                                                          |                                         | 3c                 | 5.7                                      | 48                           |                                         | 5.1                                                                    |
| 8734 1003004        |                                                             |                                                          |                                         | 4c                 | 6.1                                      | 57                           |                                         | 4.5                                                                    |
| 8734 1003005        |                                                             |                                                          |                                         | 5c                 | 6.5                                      | 66                           |                                         | 4.1                                                                    |
| 8734 1003006        |                                                             |                                                          |                                         | 6c                 | 7.0                                      | 75                           |                                         | 3.8                                                                    |
| 8734 1003007        |                                                             |                                                          |                                         | 7c                 | 7.8                                      | 89                           |                                         | 3.5                                                                    |
| 8734 1003010        |                                                             |                                                          |                                         | 10c                | 9.0                                      | 116                          |                                         | 3.1                                                                    |
| 8734 1003012        |                                                             |                                                          |                                         | 12c                | 9.3                                      | 128                          |                                         | 3.0                                                                    |
| 8734 1003014        |                                                             |                                                          |                                         | 14c                | 9.7                                      | 144                          |                                         | 2.7                                                                    |
| 8734 1003016        |                                                             |                                                          |                                         | 16c                | 10.1                                     | 157                          |                                         | 2.6                                                                    |
| 8734 1003019        |                                                             |                                                          |                                         | 19c                | 11.3                                     | 187                          |                                         | 2.4                                                                    |
| 8734 1003024        |                                                             |                                                          |                                         | 24c                | 12.6                                     | 227                          |                                         | 2.2                                                                    |
| 8734 1005002        | 0.5mm <sup>2</sup> /21AWG                                   | 19/0.18<br>(0.9mm)                                       | 1.9                                     | 2c                 | 6.0                                      | 50                           | 39                                      | 8.1                                                                    |
| 8734 1005003        |                                                             |                                                          |                                         | 3c                 | 6.3                                      | 61                           |                                         | 6.9                                                                    |
| 8734 1007502        | 0.75mm <sup>2</sup> /18AWG                                  | 33/0.18<br>(1.1mm)                                       | 2.1                                     | 2c                 | 6.4                                      | 61                           | 21.8                                    | 10.1                                                                   |
| 8734 1007503        |                                                             |                                                          |                                         | 3c                 | 6.7                                      | 74                           |                                         | 8.6                                                                    |
| 8734 1010002        | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br>(1.2mm)                                       | 2.4                                     | 2c                 | 7.0                                      | 70                           | 19.5                                    | 11                                                                     |
| 8734 1010003        |                                                             |                                                          |                                         | 3c                 | 7.6                                      | 89                           |                                         | 10                                                                     |
| 8734 1015002        | 1.5mm <sup>2</sup> /16AWG                                   | 56/0.18<br>(1.5mm)                                       | 2.7                                     | 2c                 | 7.8                                      | 88                           | 13.3                                    | 15                                                                     |
| 8734 1015003        |                                                             |                                                          |                                         | 3c                 | 8.2                                      | 110                          |                                         | 13                                                                     |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。

※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

## ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

RO-FLEX 22775T(DC)

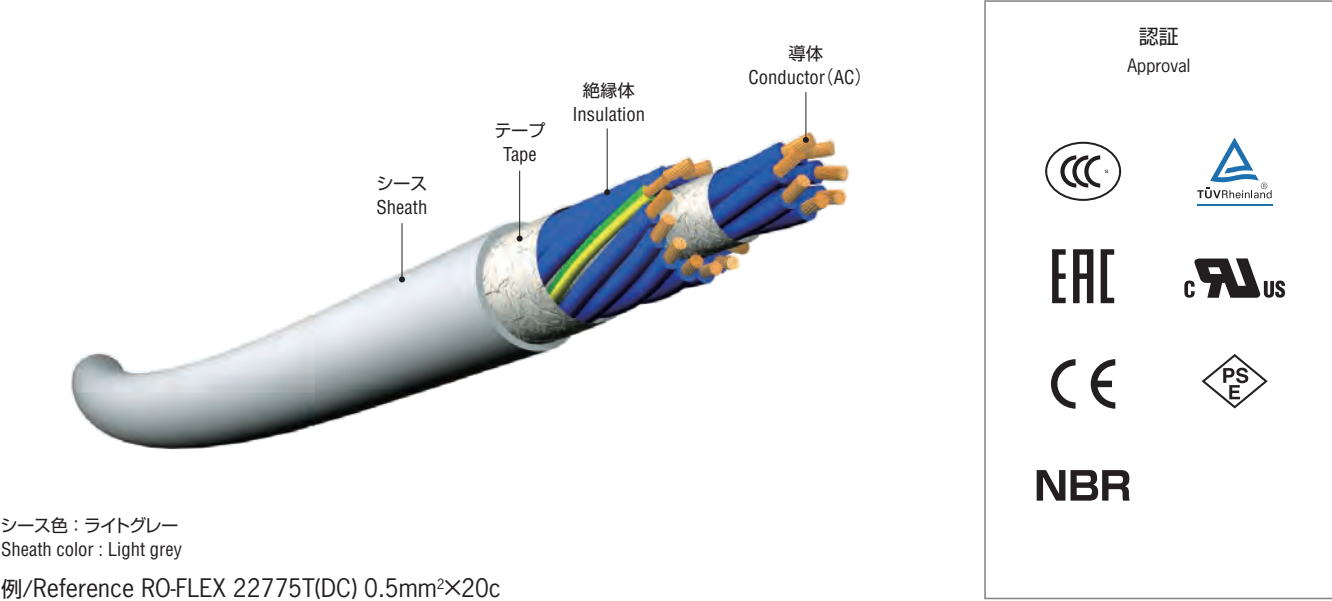
Oil resistant PVC cable with two or more conductors. For D.C. control circuit : Blue/white numbering 1~+G/Y

RO-FLEX 22775T(AC)

Oil resistant PVC cable with two or more conductors. For A.C. control circuit : Red/white numbering 1~+G/Y

DC制御回路用:  
青/白ナンバリング1~+G/Y

AC制御回路用:  
赤/白ナンバリング1~+G/Y



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 22775T(DC) 0.5mm<sup>2</sup>×20c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                                                  | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | -15℃                   | A                     | B                      | B               | D                         | 青:DC制御回路<br>赤:AC制御回路<br>Blue:DC (Control)<br>Red:AC (Control) | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 電源線

1. Fixed installation  
2. Power line

特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、『RoHS指令』2011/65/EUに適合しています。

RO-FLEX 22775T(DC/AC) series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). \*Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                                | IEC                                                                                                | CCC                                                                                                                                            | EAC                           | CE                            | NBR                                                             | PSE                           | UL       | c-UL                  |
|-----------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-----------------------------------------------------------------|-------------------------------|----------|-----------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                     | CN 4034                                                                                            | A 025981                                                                                                                                       | RU C-JP.A.R.46.<br>B.17404/20 | R 50010540                    | TÜV                                                             | JD 60154183                   | E 194236 | E 194236              |
|                       | 適応規格<br>Standard                               | IEC 60227                                                                                          | GB/T 5023                                                                                                                                      | ГОСТ 24334-80                 | EN 50525                      | NBR 7289                                                        | 電気用品安全法<br>Denan law          | UL 758   | CSA C22.2<br>No.210   |
|                       | ケーブルデザイン<br>Cable designation                  | 60227 IEC 75                                                                                       | RVVY                                                                                                                                           | ---                           | H05VV5-F                      | ---                                                             | 〈PS〉E                         | 2570     | AWM I/II<br>Group A/B |
| 特性<br>Characteristics | 公称電圧(対地間/線間)<br>Rated voltage                  | 300/500V                                                                                           |                                                                                                                                                | 1000V                         | 300/500V                      | 300/500V/0.5~1.0mm <sup>2</sup><br>600/1000V/1.5mm <sup>2</sup> | 300/500V                      | 600V     |                       |
|                       | 耐電圧<br>Test voltage                            | 2500V/5分                                                                                           |                                                                                                                                                |                               |                               |                                                                 |                               |          |                       |
|                       | 絶縁抵抗<br>Insulation resistance                  | 200MΩ・km 20℃                                                                                       |                                                                                                                                                |                               |                               |                                                                 |                               |          |                       |
|                       | 使用温度<br>Temperature range                      | -15℃~70℃                                                                                           |                                                                                                                                                | 100℃                          | -15℃~70℃                      | 70℃                                                             | -15℃~70℃                      | 80℃      |                       |
|                       | 曲げ半径<br>Minimum bending for radius             | 6D D=ケーブル外径/Overall diameter                                                                       |                                                                                                                                                |                               |                               |                                                                 |                               |          |                       |
|                       | 難燃性<br>Flame retardant                         | EN 50265-2-1 (IEC 60332-1)                                                                         |                                                                                                                                                | Fire Approval                 | EN 50265-2-1<br>(IEC 60332-1) | IEC 60332-3                                                     | EN 50265-2-1<br>(IEC 60332-1) | VW-1     | FT1                   |
| 構造<br>Construction    | 導体<br>Conductor                                | IEC 60228 Class 5                                                                                  |                                                                                                                                                |                               |                               |                                                                 |                               | ASTM B 3 |                       |
|                       | 絶縁/識別<br>Insulation/<br>Core<br>identification | DCタイプ<br>DC Type                                                                                   | 耐熱PVC/青/ナンバリング白 + 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Blue core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |                               |                               |                                                                 |                               |          |                       |
|                       |                                                | ACタイプ<br>AC Type                                                                                   | 耐熱PVC/赤/ナンバリング白 + 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Red core with white numbering + G/Y The cable of 2c are excluding Green/Yellow.  |                               |                               |                                                                 |                               |          |                       |
|                       | シース/シース色<br>Sheath/Sheath color                | 耐油・耐熱PVC/シース色：ライトグレー(N7)<br>Heat and oil resistant PVC/Sheath color : Light grey(Mansel number:N7) |                                                                                                                                                |                               |                               |                                                                 |                               |          |                       |

ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor<br>composition/<br><diameter><br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 0075 0005002        | 0.5mm <sup>2</sup> /21AWG                                   | 19/0.18<br><0.9mm>                                         | 2.1                                     | 2c                      | 5.9                                      | 37                           | 39                                      | 6.4                                                                    |
| 0075 0005003        |                                                             |                                                            |                                         | 3c                      | 6.2                                      | 47                           |                                         | 5.6                                                                    |
| 0075 0005004        |                                                             |                                                            |                                         | 4c                      | 6.8                                      | 58                           |                                         | 5.2                                                                    |
| 0075 0005005        |                                                             |                                                            |                                         | 5c                      | 7.6                                      | 73                           |                                         | 4.8                                                                    |
| 0075 0005006        |                                                             |                                                            |                                         | 6c                      | 8.2                                      | 85                           |                                         | 4.4                                                                    |
| 0075 0005007        |                                                             |                                                            |                                         | 7c                      | 9.1                                      | 102                          |                                         | 4.4                                                                    |
| 0075 0005008        |                                                             |                                                            |                                         | 8c                      | 9.8                                      | 116                          |                                         | 4.0                                                                    |
| 0075 0005010        |                                                             |                                                            |                                         | 10c                     | 10.7                                     | 136                          |                                         | 4.0                                                                    |
| 0075 0005012        |                                                             |                                                            |                                         | 12c                     | 11.0                                     | 154                          |                                         | 3.6                                                                    |
| 0075 0005016        |                                                             |                                                            |                                         | 16c                     | 12.4                                     | 201                          |                                         | 3.2                                                                    |
| 0075 0005018        |                                                             |                                                            |                                         | 18c                     | 13.0                                     | 222                          |                                         | 3.2                                                                    |
| 0075 0005020        |                                                             |                                                            |                                         | 20c                     | 13.9                                     | 251                          |                                         | 3.2                                                                    |
| 0075 0005025        |                                                             |                                                            |                                         | 25c                     | 15.5                                     | 306                          |                                         | 2.4                                                                    |
| 0075 0005030        |                                                             |                                                            |                                         | 30c                     | 16.6                                     | 363                          |                                         | 2.4                                                                    |
| 0075 0007502        | 0.75mm <sup>2</sup> /18AWG                                  | 33/0.18<br><1.1mm>                                         | 2.3                                     | 2c                      | 6.3                                      | 46                           | 21.8                                    | 8.8                                                                    |
| 0075 0007503        |                                                             |                                                            |                                         | 3c                      | 6.7                                      | 60                           |                                         | 7.7                                                                    |
| 0075 0007504        |                                                             |                                                            |                                         | 4c                      | 7.5                                      | 79                           |                                         | 7.2                                                                    |
| 0075 0007505        |                                                             |                                                            |                                         | 5c                      | 8.1                                      | 94                           |                                         | 6.6                                                                    |
| 0075 0007506        |                                                             |                                                            |                                         | 6c                      | 9.0                                      | 115                          |                                         | 6.1                                                                    |
| 0075 0007507        |                                                             |                                                            |                                         | 7c                      | 9.8                                      | 133                          |                                         | 6.1                                                                    |
| 0075 0007508        |                                                             |                                                            |                                         | 8c                      | 10.7                                     | 155                          |                                         | 5.5                                                                    |
| 0075 0007510        |                                                             |                                                            |                                         | 10c                     | 11.5                                     | 178                          |                                         | 5.5                                                                    |
| 0075 0007512        |                                                             |                                                            |                                         | 12c                     | 12.1                                     | 210                          |                                         | 5.0                                                                    |
| 0075 0007516        |                                                             |                                                            |                                         | 16c                     | 13.5                                     | 273                          |                                         | 4.4                                                                    |
| 0075 0007518        |                                                             |                                                            |                                         | 18c                     | 14.2                                     | 304                          |                                         | 4.4                                                                    |
| 0075 0007520        |                                                             |                                                            |                                         | 20c                     | 15.2                                     | 342                          |                                         | 4.4                                                                    |
| 0075 0007525        |                                                             |                                                            |                                         | 25c                     | 16.9                                     | 417                          |                                         | 3.3                                                                    |
| 0075 0007530        |                                                             |                                                            |                                         | 30c                     | 18.0                                     | 494                          |                                         | 3.3                                                                    |
| 0075 0010002        | 1.0mm <sup>2</sup> /18AWG                                   | 37/0.18<br><1.2mm>                                         | 2.4                                     | 2c                      | 6.5                                      | 50                           | 19.5                                    | 18.0                                                                   |
| 0075 0010003        |                                                             |                                                            |                                         | 3c                      | 6.9                                      | 64                           |                                         | 18.0                                                                   |
| 0075 0010004        |                                                             |                                                            |                                         | 4c                      | 7.7                                      | 84                           |                                         | 14.4                                                                   |
| 0075 0010005        |                                                             |                                                            |                                         | 5c                      | 8.4                                      | 102                          |                                         | 14.4                                                                   |
| 0075 0010006        |                                                             |                                                            |                                         | 6c                      | 9.3                                      | 124                          |                                         | 14.4                                                                   |
| 0075 0010007        |                                                             |                                                            |                                         | 7c                      | 10.1                                     | 143                          |                                         | 12.6                                                                   |
| 0075 0010008        |                                                             |                                                            |                                         | 8c                      | 11.1                                     | 168                          |                                         | 12.6                                                                   |
| 0075 0010010        |                                                             |                                                            |                                         | 10c                     | 12.1                                     | 198                          |                                         | 9.0                                                                    |
| 0075 0010012        |                                                             |                                                            |                                         | 12c                     | 12.5                                     | 227                          |                                         | 9.0                                                                    |
| 0075 0010016        |                                                             |                                                            |                                         | 16c                     | 14.0                                     | 296                          |                                         | 9.0                                                                    |
| 0075 0010018        |                                                             |                                                            |                                         | 18c                     | 14.9                                     | 336                          |                                         | 9.0                                                                    |
| 0075 0010020        |                                                             |                                                            |                                         | 20c                     | 15.7                                     | 370                          |                                         | 9.0                                                                    |
| 0075 0010025        |                                                             |                                                            |                                         | 25c                     | 17.7                                     | 460                          |                                         | 9.0                                                                    |
| 0075 0010030        |                                                             |                                                            |                                         | 30c                     | 18.7                                     | 535                          |                                         | 9.0                                                                    |
| 0075 0015002        | 1.5mm <sup>2</sup> /16AWG                                   | 56/0.18<br><1.5mm>                                         | 3.1                                     | 2c                      | 8.1                                      | 75                           | 13.3                                    | 24                                                                     |
| 0075 0015003        |                                                             |                                                            |                                         | 3c                      | 8.6                                      | 98                           |                                         | 24                                                                     |
| 0075 0015004        |                                                             |                                                            |                                         | 4c                      | 9.6                                      | 128                          |                                         | 19                                                                     |
| 0075 0015005        |                                                             |                                                            |                                         | 5c                      | 10.7                                     | 160                          |                                         | 19                                                                     |
| 0075 0015006        |                                                             |                                                            |                                         | 6c                      | 11.8                                     | 194                          |                                         | 19                                                                     |
| 0075 0015007        |                                                             |                                                            |                                         | 7c                      | 12.9                                     | 224                          |                                         | 17                                                                     |
| 0075 0015008        |                                                             |                                                            |                                         | 8c                      | 14.0                                     | 261                          |                                         | 17                                                                     |
| 0075 0015010        |                                                             |                                                            |                                         | 10c                     | 15.3                                     | 307                          |                                         | 12                                                                     |
| 0075 0015012        |                                                             |                                                            |                                         | 12c                     | 15.8                                     | 352                          |                                         | 12                                                                     |
| 0075 0015016        |                                                             |                                                            |                                         | 16c                     | 17.9                                     | 468                          |                                         | 12                                                                     |
| 0075 0015018        |                                                             |                                                            |                                         | 18c                     | 18.8                                     | 519                          |                                         | 12                                                                     |
| 0075 0015020        |                                                             |                                                            |                                         | 20c                     | 20.0                                     | 582                          |                                         | 12                                                                     |
| 0075 0015025        |                                                             |                                                            |                                         | 25c                     | 22.5                                     | 721                          |                                         | 12                                                                     |
| 0075 0015030        |                                                             |                                                            |                                         | 30c                     | 24.0                                     | 851                          |                                         | 12                                                                     |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

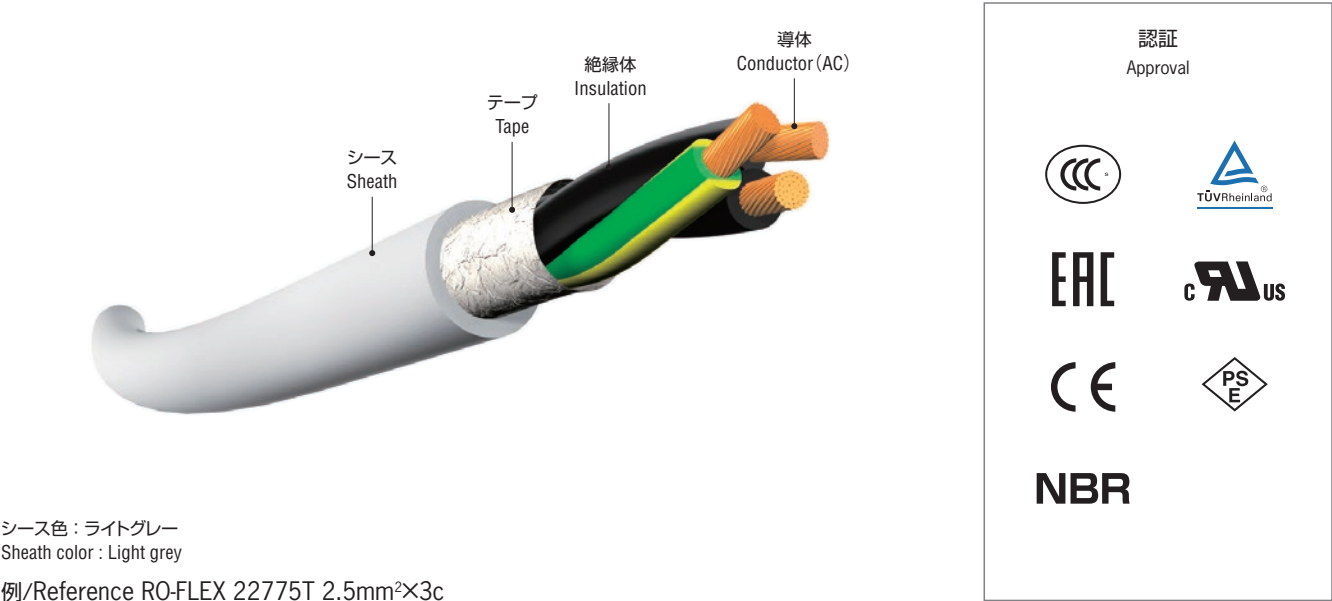
|                                                                                        |                           |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------------------------------------------------------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 【0.5mm <sup>2</sup> ~0.75mm <sup>2</sup> 】<br>■温度減少係数<br>Temperature Correction Factor | 温度(℃) Ambient temperature | 10    | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
|                                                                                        | 係数 Correction factor      | 1.22  | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |
| 【1.0mm <sup>2</sup> ~1.5mm <sup>2</sup> 】<br>■温度減少係数<br>Temperature Correction Factor  | 温度(℃) Ambient temperature | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 | 61~70 |       |       |
|                                                                                        | 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |       |       |

# RO-FLEX 22775T

Oil resistant PVC sheathed cable with two or more conductors

WORLD WIDE STANDARD CABLE

C<sup>3</sup>-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 22775T 2.5mm<sup>2</sup>×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring       | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|--------------------|---------------------------------------------------|-------------------|
|                                       | +80℃                   | −15℃                   | A                     | B                      | B               | D                         | AC/DC動力回路<br>Motor | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 固定部  
2. 電源線

1. Fixed installation  
2. Power line

## 特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは「低電圧指令」2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 22775T series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

## ■認証 APPROVALS

| 項目 Item               |                                           | IEC                                                                                                                                             | CCC       | EAC                           | CE                            | NBR         | PSE                           | UL       | c-UL                  |
|-----------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|-------------------------------|-------------|-------------------------------|----------|-----------------------|
| 認証<br>Approvals       | 認証番号<br>Certificate number                | CN 4034                                                                                                                                         | A 025981  | RU C-JP A R 46.<br>B.17404/20 | R 50010540                    | TÜV         | JD 60154183                   | E 194236 | E 194236              |
|                       | 適応規格<br>Standard                          | IEC 60227                                                                                                                                       | GB/T 5023 | ГОСТ 24334-80                 | EN 50525                      | NBR 7289    | 電気用品安全法<br>Denan law          | UL 758   | CSA C22.2<br>No.210   |
|                       | ケーブルデザイン<br>Cable designations            | 60227 IEC 75                                                                                                                                    | RVVY      | ---                           | H05VV5-F                      | ---         | 〈PS〉E                         | 2570     | AWM I/II<br>Group A/B |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage            | 300/500V                                                                                                                                        |           | 1000V                         | 300/500V                      | 600/1000V   | 300/500V                      | 600V     |                       |
|                       | 耐電圧<br>Test Voltage                       | 2500V/5分                                                                                                                                        |           |                               |                               |             |                               |          |                       |
|                       | 絶縁抵抗<br>Insulation resistance             | 200MΩ・km 20℃                                                                                                                                    |           |                               |                               |             |                               |          |                       |
|                       | 使用温度<br>Temperature range                 | -15℃～70℃                                                                                                                                        |           | 100℃                          | -15℃～70℃                      | 70℃         | -15℃～70℃                      | 80℃      |                       |
|                       | 曲げ半径<br>Minimum bending for radius        | 6D D=ケーブル外径/Overall diameter                                                                                                                    |           |                               |                               |             |                               |          |                       |
| 構造<br>Construction    | 難燃性<br>Flame retardant                    | EN 50265-2-1 (IEC 60332-1)                                                                                                                      |           | Fire Approval                 | EN 50265-2-1<br>(IEC 60332-1) | IEC 60332-3 | EN 50265-2-1<br>(IEC 60332-1) | VW-1     | FT1                   |
|                       | 導体<br>Conductor                           | IEC 60228 Class 5                                                                                                                               |           |                               |                               |             |                               | ASTM B 3 |                       |
|                       | 絶縁/識別<br>Insulation / Core identification | 耐熱PVC/黒/ナン/バリング白+ 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |           |                               |                               |             |                               |          |                       |
|                       | シース/シース色<br>Sheath/Sheath color           | 耐油・耐熱PVC/シース色：ライトグレー (N7)<br>Heat and oil resistant PVC/Sheath color : Light grey (Mansel number:N7)                                            |           |                               |                               |             |                               |          |                       |

## ケーブル構造 CABLE CONSTRUCTION

| 商品番号<br>Part number | 導体断面積<br>Nominal cross<br>sectional area<br>mm <sup>2</sup> | 導体構成/(外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
|---------------------|-------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 0075 0025002        | 2.5mm <sup>2</sup> /14AWG                                   | 93/0.18<br>(1.9mm)                                         | 3.5                                     | 2c                      | 9.1                                      | 112                          | 7.98                                    | 30                                                                     |
| 0075 0025003        |                                                             |                                                            |                                         | 3c                      | 9.7                                      | 143                          |                                         | 30                                                                     |
| 0075 0025004        |                                                             |                                                            |                                         | 4c                      | 10.8                                     | 185                          |                                         | 24                                                                     |
| 0075 0025005        |                                                             |                                                            |                                         | 5c                      | 12.0                                     | 222                          |                                         | 24                                                                     |
| 0075 0025006        |                                                             |                                                            |                                         | 6c                      | 13.0                                     | 262                          |                                         | 24                                                                     |
| 0075 0025007        |                                                             |                                                            |                                         | 7c                      | 14.4                                     | 311                          |                                         | 21                                                                     |
| 0075 0025008        |                                                             |                                                            |                                         | 8c                      | 15.7                                     | 362                          |                                         | 21                                                                     |
| 0075 0025010        |                                                             |                                                            |                                         | 10c                     | 17.1                                     | 427                          |                                         | 15                                                                     |
| 0075 0025012        |                                                             |                                                            |                                         | 12c                     | 17.9                                     | 501                          |                                         | 15                                                                     |
| 0075 0025016        |                                                             |                                                            |                                         | 16c                     | 20.0                                     | 654                          |                                         | 15                                                                     |
| 0075 0025018        |                                                             |                                                            |                                         | 18c                     | 21.2                                     | 737                          |                                         | 15                                                                     |
| 0075 0025020        |                                                             |                                                            |                                         | 20c                     | 22.6                                     | 826                          |                                         | 15                                                                     |
| 0075 0025025        |                                                             |                                                            |                                         | 25c                     | 25.3                                     | 1019                         |                                         | 15                                                                     |
| 0075 0025030        |                                                             |                                                            |                                         | 30c                     | 26.9                                     | 1203                         |                                         | 15                                                                     |

●販売条長：153m Standard length : 153m (500ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30°C in the air.

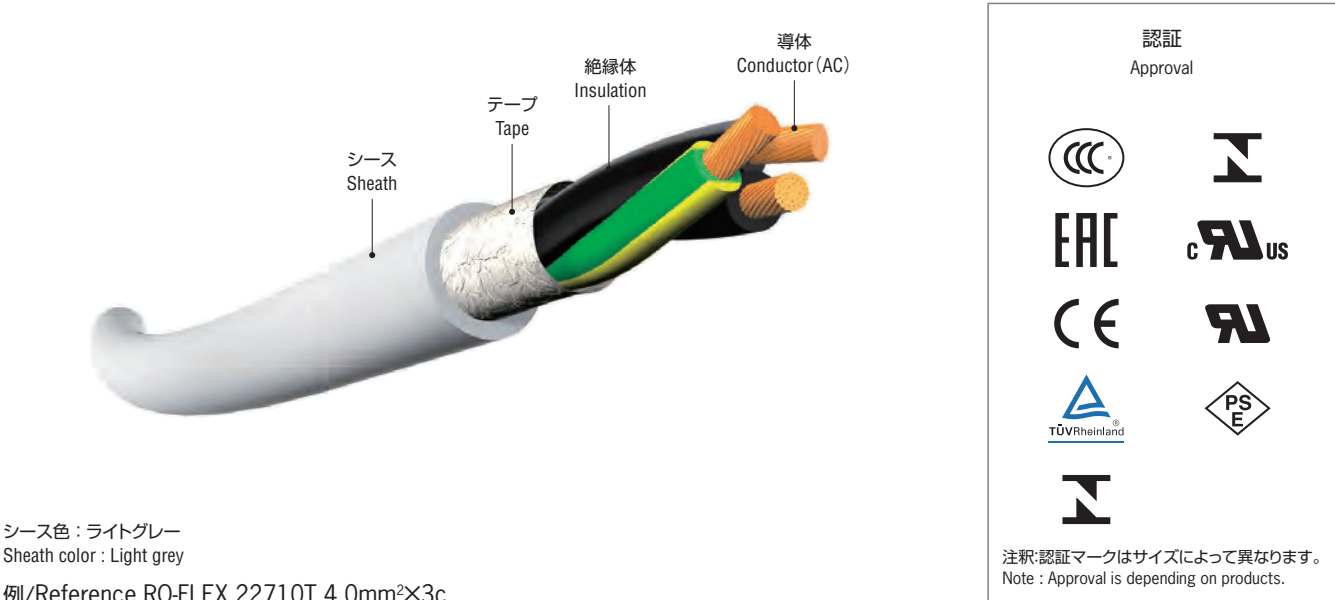
## ■温度減少係数 Temperature Correction Factor

| 温度(℃)<br>Ambient temperature | 21〜25 | 26〜30 | 31〜35 | 36〜40 | 41〜45 | 46〜50 | 51〜55 | 56〜60 | 61〜70 |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX 22710T
Sheathed cables for fixed wiring

WORLD WIDE STANDARD CABLE

C3-Series



シース色：ライトグレー
Sheath color : Light grey

例/Reference RO-FLEX 22710T 4.0mm²×3c

Table with 10 columns: ケーブル特性 (Cable characteristics), 耐熱性 (Heat resistance), 耐寒性 (Cold resistance), 耐油性 (Oil resistance), 難燃性 (Flame retardant), 耐屈曲性 (Flexing), 耐ノイズ性 (Noise resistance), 配線 (Wiring), RoHS指令 10物質 (RoHS Directive 10 substances), アウトガス対応 (Outgas). Rows show specific values like +80°C, -15°C, A, B, C, D, AC/DC動力回路 Motor, 適合 (Conformity), and C.

※ケーブル特性については、巻末の技術データを参照して下さい。 Refer to technical data.

用 途 Application

- 固定部
- 電源線

1. Fixed installation  
2. Power line

特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSE規格に適合しており1つのケーブルで国内及び他国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適用しています。又、「RoHS指令」2011/65/EUに適用しています。

RO-FLEX22710T series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). "Conformity to RoHS directive 2011/65/EU"

■認証 APPROVALS

Table with 10 columns: 項目 Item, IEC, CCC, CE, EAC, NBR, PSE, UL, c-UL. Rows include Approvals (Certification number, Standard, Cable designations), Characteristics (Rated voltage, Test voltage, Insulation resistance, Temperature range, Bending radius, Flame retardant), and Construction (Conductor, Insulation/Core identification, Sheath color).

※8-2 AWG 10mm²～35mm²は、CSA(UL)に対応していません。 ※8-2AWG 10mm²～35mm² has not been approved by CSA(UL)

Table with 9 columns: ケーブル構造 CABLE CONSTRUCTION, 商品番号 Part number, 導体断面積 Nominal cross sectional area mm², 導体構成/外径 Conductor composition/ (diameter) mm, 絶縁外径 Diameter of insulation mm, 芯数 No. of cores, 仕上外径 Approx.Overall diameter mm, 概算質量 Approx.mass kg/km, 導体抵抗 Conductor resistance Ω/km, 許容電流 (IEC 60364-5-52) Current Carrying Capacities(At30°C) A. Rows list various cable specifications and their corresponding values.

●販売条長：153m Standard length：153m(500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数 Temperature Correction Factor

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX 22775F(DC)

Robot Cable. Oil resistant PVC cable with two or more conductors. For D.C. control circuit : Blue/white numbering 1~+G/Y

RO-FLEX 22775F(AC)

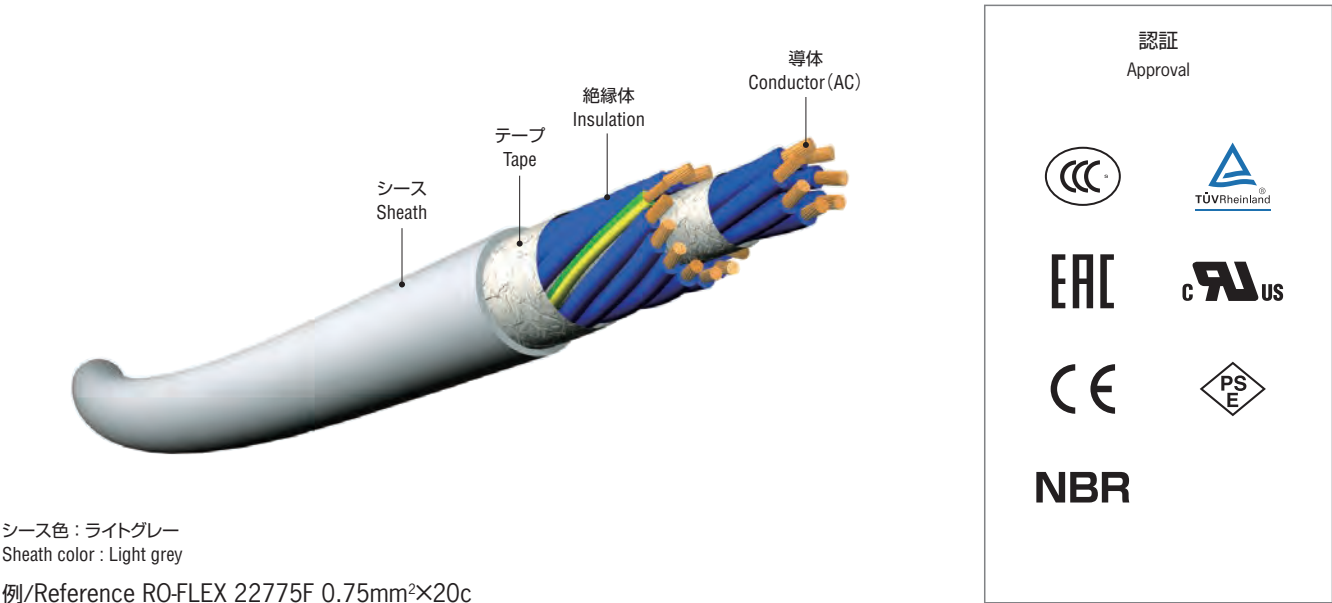
Robot Cable. Oil resistant PVC cable with two or more conductors. For A.C. control circuit : Red/white numbering 1~+G/Y

DC制御回路用:  
青/白ナンバリング1~+G/Y

AC制御回路用:  
赤/白ナンバリング1~+G/Y

WORLD WIDE STANDARD CABLE

C<sup>3</sup>-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 22775F 0.75mm<sup>2</sup>×20c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring                                                  | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|---------------------------------------------------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | 青:DC制御回路<br>赤:AC制御回路<br>Blue:DC (Control)<br>Red:AC (Control) | 適合<br>Conformity                                  |                   |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部  
2. 電源線

1. Constant movement  
2. Power line

特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適應しています。

RO-FLEX 22775F(DC/AC) series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals. The product is in conformity to Directive 2014/35/EU("Low voltage directive"). "Conformity to RoHS directive 2011/65/EU"

■認証 APPROVAL

| 項目 Item               |                                             |                  | IEC                                                                                                                                            | CCC       | EAC                           | CE                            | NBR                                                             | UL       | c-UL                  | PSE                           |
|-----------------------|---------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|-------------------------------|-----------------------------------------------------------------|----------|-----------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number                  |                  | CN 4034                                                                                                                                        | A 025981  | RU C-JP.A R 46.<br>B.17404/20 | R 50010540                    | TÜV                                                             | E 194236 | E 194236              | JD 60154183                   |
|                       | 適応規格<br>Standard                            |                  | IEC 60227                                                                                                                                      | GB/T 5023 | ГОСТ 24334-80                 | EN 50525                      | NBR 7289                                                        | UL 758   | CSA C22.2<br>No.210   | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation               |                  | 60227 IEC 75                                                                                                                                   | RVVY      | ---                           | A05V2V5-F                     | ---                                                             | 2570     | AWM I/II<br>Group A/B | (PSE)                         |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage              |                  | 300/500V                                                                                                                                       |           | 1000V                         | 300/500V                      | 300/500V:0.5~1.0mm <sup>2</sup><br>600/1000V:1.5mm <sup>2</sup> | 600V     | 600V                  | 300/500V                      |
|                       | 耐電圧<br>Test voltage                         |                  | 2500V/5分                                                                                                                                       |           |                               |                               |                                                                 |          |                       |                               |
|                       | 絶縁抵抗<br>Insulation resistance               |                  | 200MΩ・km (at 20℃)                                                                                                                              |           |                               |                               |                                                                 |          |                       |                               |
|                       | 使用温度<br>Temperature range                   |                  | 70℃                                                                                                                                            |           | 100℃                          | 0~90℃                         | 70℃                                                             | 80℃      | 105℃                  | 70℃                           |
|                       | 曲げ半径<br>Minimum bending for radius          |                  | 6D D=ケーブル外径/Overall diameter                                                                                                                   |           |                               |                               |                                                                 |          |                       |                               |
|                       | 難燃性<br>Flame retardant                      |                  | EN 50265-2-1<br>(IEC 60332-1)                                                                                                                  |           | Fire Approval                 | EN 50265-2-1<br>(IEC 60332-1) | IEC 60332-3                                                     | VW-1     | FT1                   | EN 50265-2-1<br>(IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                             |                  | IEC 60228 Class 6                                                                                                                              |           |                               |                               | IEC 60228 Class 5                                               | ASTM B 3 |                       | IEC 60228 Class 6             |
|                       | 絶縁/識別<br>Insulation/<br>Core identification | DCタイプ<br>DC Type | 耐熱PVC/青/ナンバリング白 + 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Blue core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |           |                               |                               |                                                                 |          |                       |                               |
|                       |                                             | ACタイプ<br>AC type | 耐熱PVC/赤/ナンバリング白 + 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Red core with white numbering + G/Y The cable of 2c are excluding Green/Yellow.  |           |                               |                               |                                                                 |          |                       |                               |
|                       | シース/シース色<br>Sheath/Sheath color             |                  | 耐油・耐熱PVC/ライトグレー (N7)<br>Oil and Heat resistant PVC/Light grey(Mansel number:N7)                                                                |           |                               |                               |                                                                 |          |                       |                               |

| ケーブル構造 CABLE CONSTRUCTION |                                                 |                                                            |                                         |                         |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------|------------------------------------------------------------|-----------------------------------------|-------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/〈外径〉<br>Conductor<br>composition/<br>〈diameter〉<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60364-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 0575 0005002              | 0.5mm <sup>2</sup> /21AWG                       | 90/0.08<br>〈1.0mm〉                                         | 2.2                                     | 2c                      | 6.1                                      | 38                           | 39                                      | 6.4                                                                    |
| 0575 0005003              |                                                 |                                                            |                                         | 3c                      | 6.5                                      | 48                           |                                         | 5.6                                                                    |
| 0575 0005004              |                                                 |                                                            |                                         | 4c                      | 7.0                                      | 59                           |                                         | 5.2                                                                    |
| 0575 0005005              |                                                 |                                                            |                                         | 5c                      | 7.8                                      | 74                           |                                         | 4.8                                                                    |
| 0575 0005006              |                                                 |                                                            |                                         | 6c                      | 8.5                                      | 87                           |                                         | 4.4                                                                    |
| 0575 0005007              |                                                 |                                                            |                                         | 7c                      | 9.5                                      | 105                          |                                         | 4.4                                                                    |
| 0575 0005008              |                                                 |                                                            |                                         | 8c                      | 10.4                                     | 124                          |                                         | 4.0                                                                    |
| 0575 0005010              |                                                 |                                                            |                                         | 10c                     | 11.1                                     | 139                          |                                         | 4.0                                                                    |
| 0575 0005012              |                                                 |                                                            |                                         | 12c                     | 11.5                                     | 158                          |                                         | 3.6                                                                    |
| 0575 0005016              |                                                 |                                                            |                                         | 16c                     | 12.8                                     | 205                          |                                         | 3.2                                                                    |
| 0575 0005018              |                                                 |                                                            |                                         | 18c                     | 13.7                                     | 233                          |                                         | 3.2                                                                    |
| 0575 0005020              |                                                 |                                                            |                                         | 20c                     | 14.4                                     | 256                          |                                         | 3.2                                                                    |
| 0575 0007502              | 0.75mm <sup>2</sup> /18AWG                      | 167/0.08<br>〈1.3mm〉                                        | 2.5                                     | 2c                      | 6.7                                      | 50                           | 21.8                                    | 8.8                                                                    |
| 0575 0007503              |                                                 |                                                            |                                         | 3c                      | 7.1                                      | 64                           |                                         | 7.7                                                                    |
| 0575 0007504              |                                                 |                                                            |                                         | 4c                      | 8.0                                      | 84                           |                                         | 7.2                                                                    |
| 0575 0007505              |                                                 |                                                            |                                         | 5c                      | 8.9                                      | 105                          |                                         | 6.6                                                                    |
| 0575 0007506              |                                                 |                                                            |                                         | 6c                      | 9.6                                      | 122                          |                                         | 6.1                                                                    |
| 0575 0007507              |                                                 |                                                            |                                         | 7c                      | 10.7                                     | 147                          |                                         | 6.1                                                                    |
| 0575 0007508              |                                                 |                                                            |                                         | 8c                      | 11.5                                     | 166                          |                                         | 5.5                                                                    |
| 0575 0007510              |                                                 |                                                            |                                         | 10c                     | 12.5                                     | 196                          |                                         | 5.5                                                                    |
| 0575 0007512              |                                                 |                                                            |                                         | 12c                     | 12.9                                     | 223                          |                                         | 5.0                                                                    |
| 0575 0007516              |                                                 |                                                            |                                         | 16c                     | 14.7                                     | 298                          |                                         | 4.4                                                                    |
| 0575 0007518              |                                                 |                                                            |                                         | 18c                     | 15.4                                     | 329                          |                                         | 4.4                                                                    |
| 0575 0007520              |                                                 |                                                            |                                         | 20c                     | 16.4                                     | 370                          |                                         | 4.4                                                                    |
| 0575 0010002              | 1.0mm <sup>2</sup> /18AWG                       | 7/27/0.08<br>〈1.4mm〉                                       | 2.6                                     | 2c                      | 6.9                                      | 53                           | 19.5                                    | 18.0                                                                   |
| 0575 0010003              |                                                 |                                                            |                                         | 3c                      | 7.5                                      | 72                           |                                         | 18.0                                                                   |
| 0575 0010004              |                                                 |                                                            |                                         | 4c                      | 8.2                                      | 90                           |                                         | 14.4                                                                   |
| 0575 0010005              |                                                 |                                                            |                                         | 5c                      | 9.1                                      | 112                          |                                         | 14.4                                                                   |
| 0575 0010006              |                                                 |                                                            |                                         | 6c                      | 9.9                                      | 132                          |                                         | 14.4                                                                   |
| 0575 0010007              |                                                 |                                                            |                                         | 7c                      | 11.0                                     | 158                          |                                         | 12.6                                                                   |
| 0575 0010008              |                                                 |                                                            |                                         | 8c                      | 12.0                                     | 185                          |                                         | 12.6                                                                   |
| 0575 0010010              |                                                 |                                                            |                                         | 10c                     | 12.9                                     | 211                          |                                         | 9.0                                                                    |
| 0575 0010012              |                                                 |                                                            |                                         | 12c                     | 13.5                                     | 247                          |                                         | 9.0                                                                    |
| 0575 0010016              |                                                 |                                                            |                                         | 16c                     | 15.1                                     | 321                          |                                         | 9.0                                                                    |
| 0575 0010018              |                                                 |                                                            |                                         | 18c                     | 15.9                                     | 356                          |                                         | 9.0                                                                    |
| 0575 0010020              |                                                 |                                                            |                                         | 20c                     | 17.0                                     | 401                          |                                         | 9.0                                                                    |
| 0575 0015002              | 1.5mm <sup>2</sup> /16AWG                       | 7/41/0.08<br>〈1.7mm〉                                       | 3.3                                     | 2c                      | 8.5                                      | 79                           | 13.3                                    | 24                                                                     |
| 0575 0015003              |                                                 |                                                            |                                         | 3c                      | 9.2                                      | 107                          |                                         | 24                                                                     |
| 0575 0015004              |                                                 |                                                            |                                         | 4c                      | 10.1                                     | 135                          |                                         | 19                                                                     |
| 0575 0015005              |                                                 |                                                            |                                         | 5c                      | 11.2                                     | 168                          |                                         | 19                                                                     |
| 0575 0015006              |                                                 |                                                            |                                         | 6c                      | 12.4                                     | 204                          |                                         | 19                                                                     |
| 0575 0015007              |                                                 |                                                            |                                         | 7c                      | 13.8                                     | 244                          |                                         | 17                                                                     |
| 0575 0015008              |                                                 |                                                            |                                         | 8c                      | 15.0                                     | 284                          |                                         | 17                                                                     |
| 0575 0015010              |                                                 |                                                            |                                         | 10c                     | 16.3                                     | 332                          |                                         | 12                                                                     |
| 0575 0015012              |                                                 |                                                            |                                         | 12c                     | 16.8                                     | 379                          |                                         | 12                                                                     |
| 0575 0015016              |                                                 |                                                            |                                         | 16c                     | 18.8                                     | 492                          |                                         | 12                                                                     |
| 0575 0015018              |                                                 |                                                            |                                         | 18c                     | 20.0                                     | 556                          |                                         | 12                                                                     |
| 0575 0015020              |                                                 |                                                            |                                         | 20c                     | 21.3                                     | 623                          |                                         | 12                                                                     |

●販売条長：153m Standard length：153m (500Ft)

※本カタログの許容電流値はエアーフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

【0.5mm<sup>2</sup>~0.75mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

|                           |      |       |       |       |       |       |       |       |       |       |       |
|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 10   | 11~15 | 16~20 | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 |
| 係数 Correction factor      | 1.22 | 1.17  | 1.12  | 1.06  | 1.00  | 0.94  | 0.87  | 0.79  | 0.71  | 0.61  | 0.50  |

【1.0mm<sup>2</sup>~1.5mm<sup>2</sup>】  
■温度減少係数  
Temperature Correction Factor

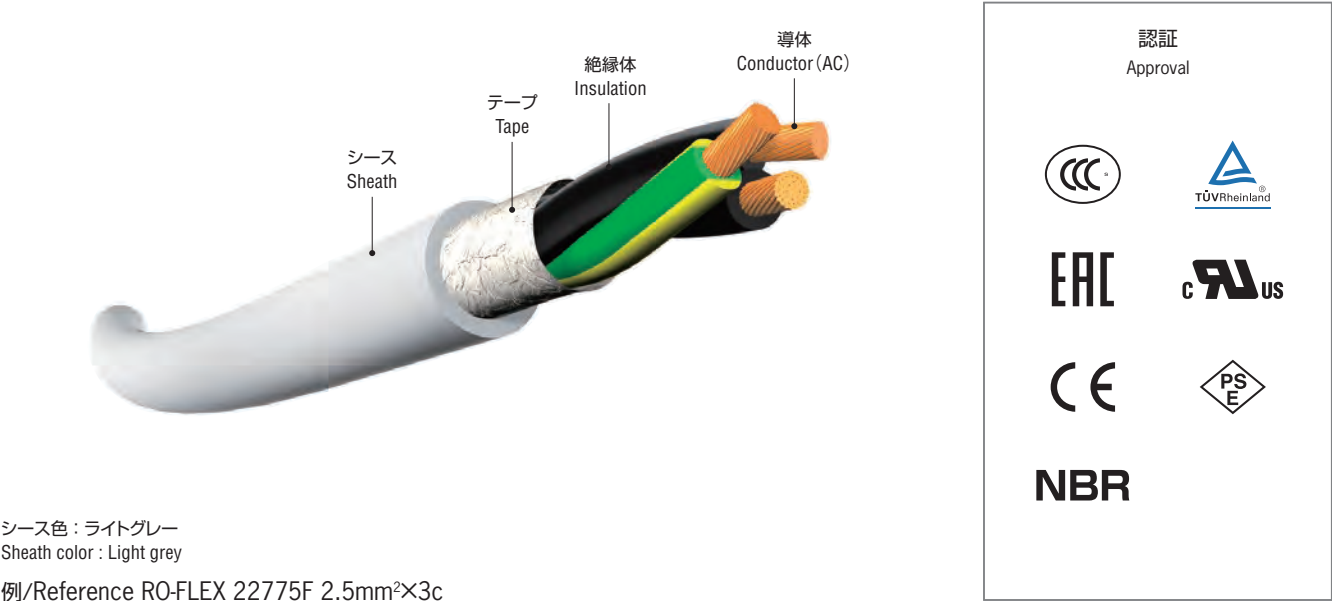
|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃) Ambient temperature | 21~25 | 26~30 | 31~35 | 36~40 | 41~45 | 46~50 | 51~55 | 56~60 | 61~70 |
| 係数 Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

RO-FLEX 22775F

Robot cable. wires. Oil resistant PVC cable with two or more conductors.

WORLD WIDE STANDARD CABLE

C<sup>3</sup>-Series



シース色：ライトグレー  
Sheath color : Light grey

例/Reference RO-FLEX 22775F 2.5mm²×3c

| ケーブル特性<br>Characteristics<br>of cable | 耐熱性<br>Heat resistance | 耐寒性<br>Cold resistance | 耐油性<br>Oil resistance | 難燃性<br>Flame retardant | 耐屈曲性<br>Flexing | 耐ノイズ性<br>Noise resistance | 配線<br>Wiring       | RoHS指令<br>10物質<br>RoHS Directive<br>10 substances | アウトガス対応<br>Outgas |
|---------------------------------------|------------------------|------------------------|-----------------------|------------------------|-----------------|---------------------------|--------------------|---------------------------------------------------|-------------------|
|                                       | +105℃                  | 0℃                     | A                     | B                      | A               | D                         | AC/DC動力回路<br>Motor | 適合<br>Conformity                                  | C                 |

※ケーブル特性については、巻末の技術データを参照して下さい。Refer to technical data.

用 途 Application

1. 可動部  
2. 電源線

1. Constant movement  
2. Power line

特 長 Characteristics

NBR, CCC, EAC, IEC, CE, UL, c-UL, PSEに適合しており1つのケーブルで国内及び多国の輸出に使用できます。又、設計の簡素化と在庫の低減につながり従来よりも効率の良い設計管理と在庫管理に最適です。このケーブルは『低電圧指令』2014/35/EUに適合しています。又、「RoHS指令」2011/65/EUに適合しています。

RO-FLEX 22775F series enable to simplify the design and efficient storage for the reduction of costs due to NBR, CCC, EAC, IEC, CE, UL, c-UL and PSE approvals.  
The product is in conformity to Directive 2014/35/EU("Low voltage directive").  
\*Conformity to RoHS directive 2011/65/EU"

| ケーブル構造 CABLE CONSTRUCTION |                                                 |                                                             |                                         |                             |                                          |                              |                                         |                                                                        |
|---------------------------|-------------------------------------------------|-------------------------------------------------------------|-----------------------------------------|-----------------------------|------------------------------------------|------------------------------|-----------------------------------------|------------------------------------------------------------------------|
| 商品番号<br>Part number       | 導体断面積<br>Nominal cross<br>sectional area<br>mm² | 導体構成/ (外径)<br>Conductor<br>composition/<br>(diameter)<br>mm | 絶縁外径<br>Diameter of<br>insulation<br>mm | 芯数<br>No. of cores<br><br>芯 | 仕上外径<br>Approx.Overall<br>diameter<br>mm | 概算質量<br>Approx.mass<br>kg/km | 導体抵抗<br>Conductor<br>resistance<br>Ω/km | 許容電流<br>(IEC 60384-5-52)<br>Current Carrying<br>Capacities(At30℃)<br>A |
| 0575 0025002              | 2.5mm²/14AWG                                    | 7/70/0.08<br>(2.3mm)                                        | 3.9                                     | 2c                          | 9.9                                      | 123                          | 7.98                                    | 30                                                                     |
| 0575 0025003              |                                                 |                                                             |                                         | 3c                          | 10.7                                     | 162                          |                                         | 30                                                                     |
| 0575 0025004              |                                                 |                                                             |                                         | 4c                          | 11.9                                     | 208                          |                                         | 24                                                                     |
| 0575 0025005              |                                                 |                                                             |                                         | 5c                          | 13.0                                     | 242                          |                                         | 24                                                                     |
| 0575 0025006              |                                                 |                                                             |                                         | 6c                          | 14.4                                     | 293                          |                                         | 24                                                                     |
| 0575 0025007              |                                                 |                                                             |                                         | 7c                          | 16.2                                     | 356                          |                                         | 21                                                                     |
| 0575 0025008              |                                                 |                                                             |                                         | 8c                          | 17.6                                     | 413                          |                                         | 21                                                                     |
| 0575 0025010              |                                                 |                                                             |                                         | 10c                         | 19.1                                     | 484                          |                                         | 15                                                                     |
| 0575 0025012              |                                                 |                                                             |                                         | 12c                         | 19.7                                     | 555                          |                                         | 15                                                                     |
| 0575 0025016              |                                                 |                                                             |                                         | 16c                         | 22.2                                     | 731                          |                                         | 15                                                                     |
| 0575 0025018              |                                                 |                                                             |                                         | 18c                         | 23.6                                     | 824                          |                                         | 15                                                                     |
| 0575 0025020              |                                                 |                                                             |                                         | 20c                         | 25.1                                     | 922                          |                                         | 15                                                                     |

●販売条長：153m   Standard length：153m (500Ft)

※本カタログの許容電流値はエアフリー・周囲温度30℃での値です。周囲温度によって、下記の補正係数を乗じてください。  
※The current carrying capacities of this catalog is a value at the ambient temperature 30℃ in the air.

■温度減少係数   Temperature Correction Factor

|                              |       |       |       |       |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 温度(℃)<br>Ambient temperature | 21～25 | 26～30 | 31～35 | 36～40 | 41～45 | 46～50 | 51～55 | 56～60 | 61～70 |
| 係数<br>Correction factor      | 1.05  | 1.00  | 0.94  | 0.88  | 0.82  | 0.75  | 0.67  | 0.58  | 0.33  |

■認証 APPROVAL

|                       | 項目 Item                                 | IEC                                                                                                                                             | CCC       | EAC                         | CE                            | NBR               | UL       | c-UL                  | PSE                           |
|-----------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------|-------------------------------|-------------------|----------|-----------------------|-------------------------------|
| 認証<br>Approval        | 認証番号<br>Certificate number              | CN 4034                                                                                                                                         | A 025981  | RU C-JP.AR46.<br>B.17404/20 | R 50010540                    | TÜV               | E 194236 | E 194236              | JD 60154183                   |
|                       | 適応規格<br>Standard                        | IEC 60227                                                                                                                                       | GB/T 5023 | ГОСТ 24334-80               | EN 50525                      | NBR 7289          | UL 758   | CSA C22.2<br>No.210   | 電気用品安全法<br>Denan law          |
|                       | ケーブルデザイン<br>Cable designation           | 60227 IEC 75                                                                                                                                    | RVVY      | ---                         | A05V2V5-F                     | ---               | 2570     | AWM I/II<br>Group A/B | (PS)E                         |
| 特性<br>Characteristics | 公称電圧 (対地間/線間)<br>Rated voltage          | 300/500V                                                                                                                                        |           | 1000V                       | 300/500V                      | 600/1000V         | 600V     | 600V                  | 300/500V                      |
|                       | 耐電圧<br>Test voltage                     | 2500V/5分                                                                                                                                        |           |                             |                               |                   |          |                       |                               |
|                       | 絶縁抵抗<br>Insulation resistance           | 200MΩ·km (at 20℃)                                                                                                                               |           |                             |                               |                   |          |                       |                               |
|                       | 使用温度<br>Temperature range               | 70℃                                                                                                                                             |           | 100℃                        | 0～90℃                         | 70℃               | 80℃      | 105℃                  | 70℃                           |
|                       | 曲げ半径<br>Minimum bending for radius      | 6D D=ケーブル外径/Overall diameter                                                                                                                    |           |                             |                               |                   |          |                       |                               |
|                       | 難燃性<br>Flame retardant                  | EN 50265-2-1<br>(IEC 60332-1)                                                                                                                   |           | Fire Approval               | EN 50265-2-1<br>(IEC 60332-1) | IEC 60332-3       | VW-1     | FT1                   | EN 50265-2-1<br>(IEC 60332-1) |
| 構造<br>Construction    | 導体<br>Conductor                         | IEC 60228 Class 6                                                                                                                               |           |                             |                               | IEC 60228 Class 5 | ASTM B 3 |                       | IEC 60228 Class 6             |
|                       | 絶縁/識別<br>Insulation/Core identification | 耐熱PVC/黒/ナンバリング白 + 緑/黄 2cはアース線(緑/黄)無しです。<br>Heat resistant PVC/Black core with white numbering + G/Y The cable of 2c are excluding Green/Yellow. |           |                             |                               |                   |          |                       |                               |
|                       | シース/シース色<br>Sheath/Sheath color         | 耐油・耐熱PVC/ライトグレー (N7)<br>Oil and Heat resistant PVC/Light grey(Mansel number:N7)                                                                 |           |                             |                               |                   |          |                       |                               |

識別
Identification

識別1 芯燃り 製品群：RO-FLEX1000T(S), RO-FLEX-PREMIUM-9000F, RO-FLEX725T

| 芯番<br>Core           | 1                 | 2                  | 3                  | 4                  | 5                   | 6                   | 7                 | 8                 | 9                 | 10                 |
|----------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|-------------------|-------------------|--------------------|
| 識別<br>Identification | 白<br>White        | 茶<br>Brown         | 緑<br>Green         | 黄<br>Yellow        | 灰<br>Grey           | 桃<br>Pink           | 青<br>Blue         | 赤<br>Red          | 黒<br>Black        | 紫<br>Violet        |
| 芯番<br>Core           | 11                | 12                 | 13                 | 14                 | 15                  | 16                  | 17                | 18                | 19                | 20                 |
| 識別<br>Identification | 灰/桃<br>Grey/Pink  | 赤/青<br>Red/Blue    | 白/緑<br>White/Green | 茶/緑<br>Brown/Green | 白/黄<br>White/Yellow | 黄/茶<br>Yellow/Brown | 白/灰<br>White/Grey | 灰/茶<br>Grey/Brown | 白/桃<br>White/Pink | 桃/茶<br>Pink/Brown  |
| 芯番<br>Core           | 21                | 22                 | 23                 | 24                 | 25                  | 26                  | 27                | 28                | 29                | 30                 |
| 識別<br>Identification | 白/青<br>White/Blue | 茶/青<br>Brown/Blue  | 白/赤<br>White/Red   | 茶/赤<br>Brown/Red   | 白/黒<br>White/Black  | 茶/黒<br>Brown/Black  | 灰/緑<br>Grey/Green | 黄/灰<br>White/Grey | 桃/緑<br>Pink/Green | 黄/桃<br>Yellow/Pink |
| 芯番<br>Core           | 31                | 32                 | 33                 | 34                 | 35                  | 36                  | 37                | 38                | 39                | 40                 |
| 識別<br>Identification | 緑/青<br>Green/Blue | 黄/青<br>Yellow/Blue | 緑/赤<br>Green/Red   | 黄/赤<br>Yellow/Red  | 緑/黒<br>Green/Black  | 黄/黒<br>Yellow/Black | 灰/青<br>Grey/Blue  | 桃/青<br>Pink/Blue  | 灰/赤<br>Grey/Red   | 桃/赤<br>Pink/Red    |

例) 10芯  
ex) 10c



識別2 対燃り 製品群：RO-FLEX3000F(S), RO-FLEX-PREMIUM-9000F(S), RO-FLEX725TS, RO-FLEX800F(S)

| 対番<br>Pairs          | 1                                 | 2                                  | 3                                    | 4                                 | 5                                 |
|----------------------|-----------------------------------|------------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|
| 識別<br>Identification | 白×茶<br>White×Brown                | 緑×黄<br>Green×Yellow                | 灰×桃<br>Grey×Pink                     | 青×赤<br>Blue×Red                   | 黒×紫<br>Black×Violet               |
| 対番<br>Pairs          | 6                                 | 7                                  | 8                                    | 9                                 | 10                                |
| 識別<br>Identification | 灰/桃×赤/青<br>Grey/Pink×Red/Blue     | 白/緑×茶/緑<br>White/Green×Brown/Green | 白/黄×黄/茶<br>White/Yellow×Yellow/Brown | 白/灰×灰/茶<br>White/Grey×Grey/Brown  | 白/桃×桃/茶<br>White/Pink×Pink/Brown  |
| 対番<br>Pairs          | 11                                | 12                                 | 13                                   | 14                                | 15                                |
| 識別<br>Identification | 白/青×茶/青<br>White/Blue×Brown/Blue  | 白/赤×茶/赤<br>White/Red×Brown/Red     | 白/黒×茶/黒<br>White/Black×Brown/Black   | 灰/緑×黄/灰<br>Grey/Green×Yellow/Grey | 桃/緑×黄/桃<br>Pink/Green×Yellow/Pink |
| 対番<br>Pairs          | 16                                | 17                                 | 18                                   | 19                                | 20                                |
| 識別<br>Identification | 緑/青×黄/青<br>Green/Blue×Yellow/Blue | 緑/赤×黄/赤<br>Green/Red×Yellow/Red    | 緑/黒×黄/黒<br>Green/Black×Yellow/Black  | 灰/青×桃/青<br>Grey/Blue×Pink/Blue    | 灰/赤×桃/赤<br>Grey/Red×Pink/Red      |

例) 5対  
ex) 5P



識別3 芯燃り 製品群：RO-FLEX2464-1061T, RO-FLEX8734T(S)

| 芯番<br>Core           | 1                | 2                | 3                  | 4                | 5                  | 6                  | 7                  | 8                 | 9                   | 10                  |
|----------------------|------------------|------------------|--------------------|------------------|--------------------|--------------------|--------------------|-------------------|---------------------|---------------------|
| 識別<br>Identification | 黒<br>Black       | 白<br>White       | 赤<br>Red           | 緑<br>Green       | 黄<br>Yellow        | 茶<br>Brown         | 青<br>Blue          | 灰<br>Grey         | 橙<br>Orange         | 桃<br>Pink           |
| 芯番<br>Core           | 11               | 12               | 13                 | 14               | 15                 | 16                 | 17                 | 18                | 19                  | 20                  |
| 識別<br>Identification | 空<br>Light Blue  | 紫<br>Violet      | 白/黒<br>White/Black | 白/赤<br>White/Red | 白/緑<br>White/Green | 白/青<br>White/Blue  | 黒/白<br>Black/White | 黒/赤<br>Black/Red  | 黒/緑<br>Black/Green  | 黒/青<br>Black/Blue   |
| 芯番<br>Core           | 21               | 22               | 23                 | 24               | 25                 | 26                 | 27                 | 28                | 29                  | 30                  |
| 識別<br>Identification | 赤/白<br>Red/White | 赤/黒<br>Red/Black | 赤/緑<br>Red/Green   | 赤/青<br>Red/Blue  | 緑/白<br>Green/White | 緑/黒<br>Green/Black | 緑/赤<br>Green/Red   | 緑/青<br>Green/Blue | 黄/白<br>Yellow/White | 黄/黒<br>Yellow/Black |

例) 12芯  
ex) 12c



識別4 対燃り 製品群：RO-FLEX2464-1061T(S)

| 対番<br>Pair           | 1                                      | 2                                        | 3                                    | 4                                 | 5                                        | 6                                    |
|----------------------|----------------------------------------|------------------------------------------|--------------------------------------|-----------------------------------|------------------------------------------|--------------------------------------|
| 識別<br>Identification | 橙×橙/黒<br>Orange×Orange/Black           | 灰×灰/黒<br>Grey×Grey/Black                 | 白×白/黒<br>White×White/Black           | 黄×黄/黒<br>Yellow×Yellow/Black      | 桃×桃/黒<br>Pink×Pink/Black                 | 橙/赤×橙/緑<br>Orange/Red×Orange/Green   |
| 対番<br>Pair           | 7                                      | 8                                        | 9                                    | 10                                | 11                                       | 12                                   |
| 識別<br>Identification | 灰/赤×灰/緑<br>Grey/Red×Grey/Green         | 白/赤×白/緑<br>White/Red×White/Green         | 黄/赤×黄/緑<br>Yellow/Red×Yellow/Green   | 桃/赤×桃/緑<br>Pink/Red×Pink/Green    | 橙/青×橙/空<br>Orange/Blue×Orange/Light Blue | 灰/青×灰/空<br>Grey/Blue×Grey/Light Blue |
| 対番<br>Pair           | 13                                     | 14                                       | 15                                   | 16                                | 17                                       | 18                                   |
| 識別<br>Identification | 白/青×白/空<br>White/Blue×White/Light Blue | 黄/青×黄/空<br>Yellow/Blue×Yellow/Light Blue | 桃/青×桃/空<br>Pink/Blue×Pink/Light Blue | 橙/紫×橙<br>Orange/Violet×Orange     | 灰/紫×灰<br>Grey/Violet×Grey                | 白/紫×白<br>White/Violet×White          |
| 対番<br>Pair           | 19                                     | 20                                       | 21                                   | 22                                | 23                                       | 24                                   |
| 識別<br>Identification | 黄/紫×黄<br>Yellow/Violet×Yellow          | 桃/紫×桃<br>Pink/Violet×Pink                | 橙/黒×橙/赤<br>Orange/Black×Orange/Red   | 灰/黒×灰/赤<br>Grey/Black×Grey/Red    | 白/黒×白/赤<br>White/Black×White/Red         | 黄/黒×黄/赤<br>Yellow/Black×Yellow/Red   |
| 対番<br>Pair           | 25                                     | 26                                       | 27                                   | 28                                | 29                                       | 30                                   |
| 識別<br>Identification | 桃/黒×桃/赤<br>Pink/Black×Pink/Red         | 橙/緑×橙/青<br>Orange/Green×Orange/Blue      | 灰/緑×灰/青<br>Grey/Green×Grey/Blue      | 白/緑×白/青<br>White/Green×White/Blue | 黄/緑×黄/青<br>Yellow/Green×Yellow/Blue      | 桃/緑×桃/青<br>Pink/Green×Pink/Blue      |

例) 3対  
ex) 3P



識別5 対燃り 製品群：NFKVV-SB(W)

| 対番<br>Pair           | 1                                     | 2                                     | 3                                             | 4                                     | 5                                        | 6                                         | 7                                 |
|----------------------|---------------------------------------|---------------------------------------|-----------------------------------------------|---------------------------------------|------------------------------------------|-------------------------------------------|-----------------------------------|
| 識別<br>Identification | 白×白/黒<br>White×White/Black            | 赤×赤/黒<br>Red×Red/Black                | 緑×緑/黒<br>Green×Green/Black                    | 青×青/灰<br>Blue×Blue/Grey               | 黄×黄/黒<br>Yellow×Yellow/Black             | 茶×茶/黒<br>Brown×Brown/Black                | 桃×桃/黒<br>Pink×Pink/Black          |
| 対番<br>Pair           | 8                                     | 9                                     | 10                                            | 11                                    | 12                                       | 13                                        | 14                                |
| 識別<br>Identification | 空×空/黒<br>Light Blue×Light Blue/Black  | 橙×橙/黒<br>Orange×Orange/Black          | 紫×紫/黒<br>Violet×Violet/Black                  | 灰×灰/黒<br>Grey×Grey/Black              | 若草×若草/黒<br>Light Green×Light Green/Black | クリーム×クリーム/黒<br>Cream×Cream/Black          | 白/青×白/赤<br>White/Blue×White/Red   |
| 対番<br>Pair           | 15                                    | 16                                    | 17                                            | 18                                    | 19                                       | 20                                        | 21                                |
| 識別<br>Identification | 黒/空×黒/赤<br>Black/Light Blue×Black/Red | 緑/空×緑/赤<br>Green/Light Blue×Green/Red | 黄/青×黄/赤<br>Yellow/Blue×Yellow/Red             | 茶/青×茶/赤<br>Brown/Blue×Brown/Red       | 桃/青×桃/赤<br>Pink/Blue×Pink/Red            | 空/青×空/赤<br>Light Blue/Blue×Light Blue/Red | 橙/青×橙/赤<br>Orange/Blue×Orange/Red |
| 対番<br>Pair           | 22                                    | 23                                    | 24                                            | 25                                    |                                          |                                           |                                   |
| 識別<br>Identification | 紫/青×紫/赤<br>Violet/Blue×Violet/Red     | 灰/青×灰/赤<br>Grey/Blue×Grey/Red         | 若草/青×若草/赤<br>Light Green/Blue×Light Green/Red | クリーム/青×クリーム/赤<br>Cream/Blue×Cream/Red |                                          |                                           |                                   |

ナンバリング

| 芯数<br>Cores          | 2芯<br>2cores                                                           | 3芯以上<br>3cores and more                                                             |
|----------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 識別<br>Identification | 黒(青、赤)/ナンバリング白1～2<br>Black(Blue, Red) core with white numbering 1 to 2 | 黒(青、赤)/ナンバリング白1～+黄/緑(緑/黄)<br>Black(Blue, Red) core with white numbering 1～+Y/G(G/Y) |

例) 2芯  
ex) 2c



例) 20芯(緑/黄)  
ex) 20c (Green/Yellow)



色比率 Color ratio  
G/Y (G:Y=6:4)

例) 20芯(黄/緑)  
ex) 20c (Yellow/Green)

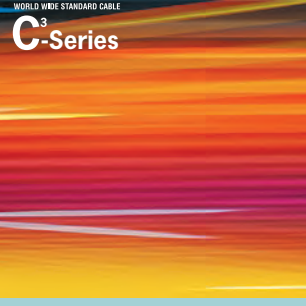
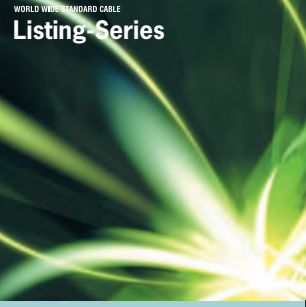
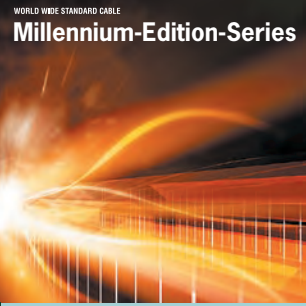


色比率 Color ratio  
Y/G (Y:G=6:4)

# Technical data

## 技術資料

|                        |         |
|------------------------|---------|
| 低アウトガスケーブル             | 112     |
| Low outgas cable       |         |
| 耐熱性                    | 113     |
| Heat resistance        |         |
| 耐油性                    | 114     |
| Oil resistance         |         |
| 難燃性                    | 115・116 |
| Flame retardant        |         |
| 耐屈曲性                   | 117・118 |
| Flexing                |         |
| 耐ノイズ性                  | 119     |
| Noise resistance       |         |
| 耐候性(耐紫外線)              | 120     |
| Weather(UV) resistance |         |



WORLD WIDE STANDARD CABLE-Series

# W.W.S.C.-Series

## 低アウトガスケーブル Low outgas cable

### 用途

分子状汚染物質が揮発しないため、半導体製造などクリーンルーム内配線やシックハウス対策に最適です。

### APPLICATION

This low outgas cable is possible to use wiring in a clean room such as the semiconductor manufacturing, because a cable do not volatilize of contaminant such as the DOP, DBP and siloxane.

### 特長

従来のPVCケーブルよりもアウトガス発生量を10分の1に低減できます。また、オレフィン系TPEを用いたエコロジーなアウトガスケーブルも開発しました。

### CHARACTERISTICS

The amount of the out gas generation has been decreased to 1/10 more than past PVC cables. Moreover, we developed ecology low outgas cable which does not use PVC such as olefin materials.

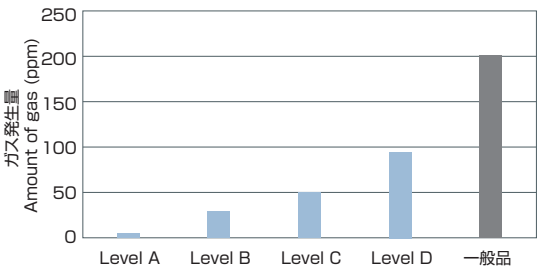
### ■アウトガスレベル Outgas level

|                                       | A                                                         | B                                     | C                                                   | D          |
|---------------------------------------|-----------------------------------------------------------|---------------------------------------|-----------------------------------------------------|------------|
| 可塑剤揮発性<br>Volatilizing of plasticizer | 少ない<br>few                                                |                                       |                                                     | 多い<br>many |
| 製品例<br>Products                       | Low outgas cable<br>( ECOLEX-Series )<br>05Z1-K<br>07Z1-K | H05V-K+RV<br>MTW+H05V-K<br>MTW+H07V-K | RO-FLEX1100T(S)<br>RO-FLEX7700T(S)<br>RO-FLEX22710T |            |

### ■アウトガス分析 Analysis of outgas

分析方法 Analysis  
Dynamic Headspace-Gas Chromatography-Mass Spectrometry(DHS-GC-MS)法  
Thermal Desorption Cold Trap(TCT)法

加熱条件  
80℃×60min

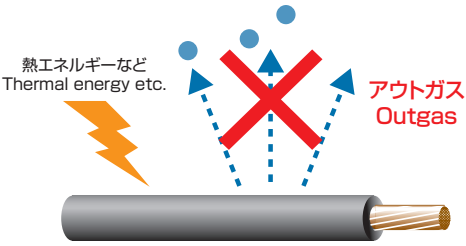


### ■汚染物質が揮発しません

フタル酸エステル  
リン酸エステル  
シロキサン化合物

### ■The contaminant does not volatilize.

Phthalate esters  
Phosphate esters  
Siloxane



耐熱性  
Heat resistance

■耐熱レベル Heat resistance level

|                                |                                      | A         | B         | C        | D         |
|--------------------------------|--------------------------------------|-----------|-----------|----------|-----------|
| 導体温度<br>Conductor temperature  | 使用温度<br>EN, IEC<br>Rated temperature | 90℃       | 90℃       | 70℃      | 70℃       |
|                                | 試験条件<br>EN, IEC<br>Test requirement  | 135℃×336h |           | 80℃×168h |           |
| 絶縁温度<br>Insulation temperature | 定格温度<br>UL, CSA<br>Rated temperature | 105℃      | 80℃       | 80℃      | 60℃       |
|                                | 試験条件<br>UL, CSA<br>Test requirement  | 136℃×168h | 113℃×168h |          | 100℃×168h |

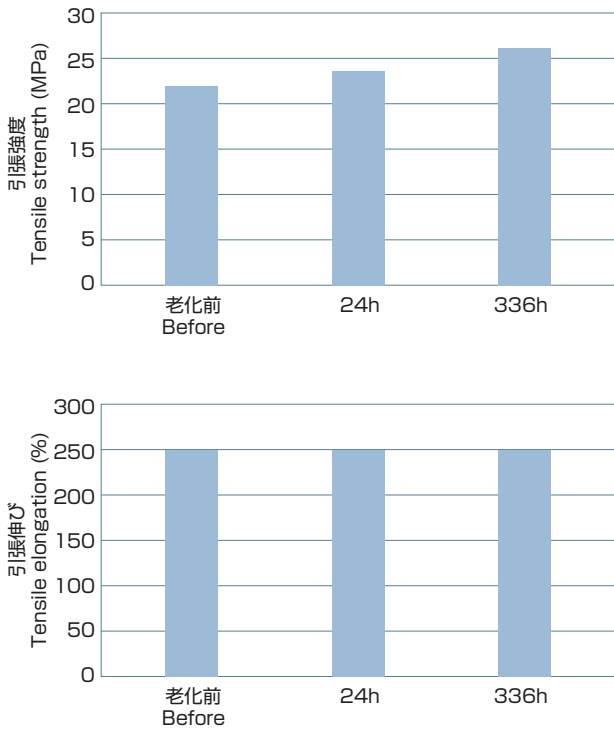
耐油性  
Oil resistance

■耐油レベル Oil resistance level

|         | A        | B                     | C       | D      |
|---------|----------|-----------------------|---------|--------|
| EN, IEC | 90℃×168h | —                     | 90℃×24h | —      |
| UL, CSA | —        | 100℃× 96h<br>60℃×168h | —       | —      |
| JIS     | —        | —                     | —       | 70℃×4h |

試験油 Test Oil : ASTM IRM902

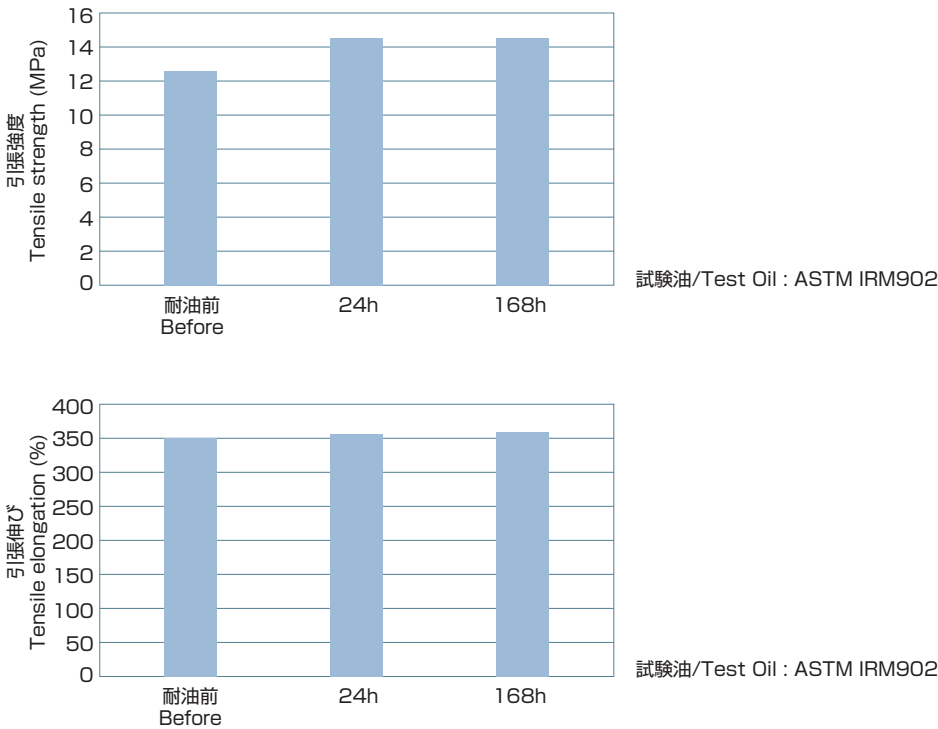
■老化試験 Test result (135℃×336h) ex.MTW+H07V-K



IEC : 国際電気標準会議 International Electrotechnical Commission  
EN : ヨーロピアン ノーム European Norm  
UL : アンダーライタース ラボラトリー Underwriters Laboratories  
CSA : カナディアンスタンダード Canadian Standard Association

※本データは実測値であり保証値ではありません。  
※This data is measurements and the reference.

■耐油試験 Test result (90℃×24h, 168h) ex.RO-FLEX 1100T



IEC : 国際電気標準会議 International Electrotechnical Commission  
EN : ヨーロピアン ノーム European Norm  
UL : アンダーライタース ラボラトリー Underwriters Laboratories  
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※本データは実測値であり保証値ではありません。  
※This data is measurements and the reference.

難燃性

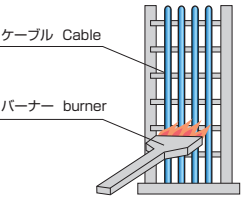
Flame retardant

■難燃レベル Flame retardant level

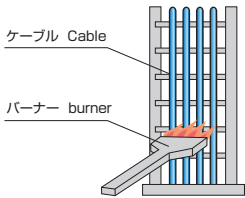
| 規格<br>Standard | A                         | B                         | C                                       | D                                                |
|----------------|---------------------------|---------------------------|-----------------------------------------|--------------------------------------------------|
| IEC            | IEC 60332-3<br>Category A | IEC 60332-3<br>Category C | EN 50265-2-1<br>(IEC 60332-1)           | IEC 60332-2<br>Horizontal flame test<br>(水平燃焼試験) |
| UL             | —                         | VW-1 for CT use           | VW-1                                    | 水平燃焼試験<br>(Horizontal flame test)                |
| CSA            | —                         | FT4                       | FT1                                     | FT2                                              |
| JIS, JCS, PSE  | —                         | JIS C 3521<br>JCS 7397    | PSE 耐燃性試験<br>(PSE flame retardant test) | JIS C 3005                                       |

注意:難燃レベルに対する**実力値**であり、認証されていない製品も含まれています。  
Caution : The products of Flame retardant level is an ability value.

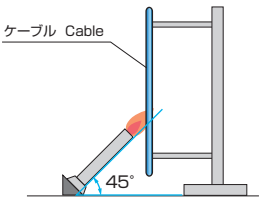
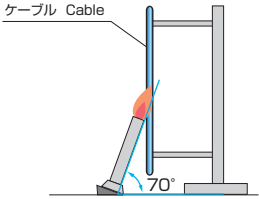
| レベルA Level A              | 試験概要 Test outline                                                                                                                                                      | 試験機 Apparatus                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IEC 60332-3<br>Category A | 対象ケーブル：室内に多条垂直布設される電線、ケーブル<br>試験試料：3.5m<br>非金属試料体積：7L/m<br>燃焼量：70,000BTU/h (75,999kJ/h)<br>燃焼時間：40min<br>チャンバー内風速：0.386±0.038m/s<br>判定基準：①ケーブルの炭化長がバーナー下面から2.5m未満であること | Cables of object : Vertically-mounted bunched wires or cables.<br>Sample : 3.5m<br>Nonmetal sample volume : 7L/m<br>Quantity of combustion : 70,000BTU/h(75,999kJ/h)<br>Flame application time : 40min<br>The wind velocity in the chamber : 0.386±0.038m/s<br>Judgement standard :<br>①The length of the cable damage from the bottom edge of the burner = under 2.5m |



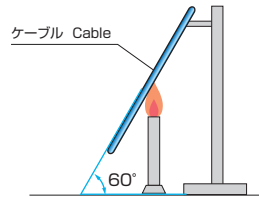
| レベルB Level B              | 試験概要 Test outline                                                                                                                                                        | 試験機 Apparatus                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VW-1 for CT use           | 試験試料：2.4m×本数(ケーブル外径による)<br>燃焼ガス：LPガス<br>ガス規定：93MJ<br>燃焼量：70,000BTU (20kW)<br>バーナー：水平設置<br>燃焼時間：20min<br>判定基準：①燃焼部がケーブルトレイの下端より2.2m未満                                     | Sample : 2.4m×number(Depend on the cable diameter)<br>Gas : LP Gas<br>Gas rule : 93MJ<br>Quantity of combustion : 70,000BTU(20kW)<br>Burner : Horizontal setting<br>Flame application time : 20min<br>Judgement standard :<br>①The length of the cable damage from the bottom edge of the cable tray = under 2.2m                                                                                              |
| CSA FT4                   | 試験試料：2.3m×本数(ケーブル外径による)<br>燃焼ガス：LPガス<br>ガス規定：85MJ<br>燃焼量：70,000BTU (20kW)<br>バーナー：傾斜20°<br>燃焼時間：20min<br>判定基準：①燃焼部がバーナーの下端より1.5m未満                                       | Sample : 2.3m×number(Depend on the cable diameter)<br>Gas : LP Gas<br>Gas rule : 85MJ<br>Quantity of combustion : 70,000BTU(20kW)<br>Burner : Slant 20°<br>Flame application time : 20min<br>Judgement standard : ①The length of the cable damage from the bottom edge of the burner = under 1.5m                                                                                                              |
| IEC 60332-3<br>Category C | 対象ケーブル：室内に多条垂直布設される電線、ケーブル<br>試験試料：3.5m<br>非金属試料体積：1.5L/m<br>燃焼量：70,000BTU/h(75,999kJ/h)<br>燃焼時間：20min<br>チャンバー内風速：0.386±0.038m/s<br>判定基準：①ケーブルの炭化長さがバーナー下面から2.5m未満であること | Cables of object : Vertically-mounted bunched wires or cables.<br>Sample : 3.5 m<br>Nonmetal sample volume : 1.5L/m<br>Quantity of combustion : 70,000BTU/h(75,999kJ/h)<br>Flame application time : 20min<br>The wind velocity in the chamber : 0.386±0.038m/s<br>Judgement standard :<br>①The length of the cable damage from the bottom edge of the burner = under 2.5m                                      |
| JIS C 3521<br>JCS 7397    | 通信ケーブル用難燃シース燃焼性試験方法<br>試験試料：2.4m<br>燃焼ガス：LPガス(JIS K 2240の2種1号)<br>燃焼時間：20min<br>評価：<br>①ケーブルを20分間燃焼後ケーブルの燃焼が自然に停止したとき 試験を終了する。<br>②トレイ底部から600mmの高さにあるバーナーを起点として燃焼長を測定する。 | Flame test method for flame retardant sheath of communication cables.<br>Sample : 2.4m<br>Gas : LP Gas (JIS K 2240 2-1)<br>Flame application time : 20min<br>Evaluation :<br>①After combusting a cable 20 min,the test is finished when the combustion of the cable stopped naturally.<br>②The damage length is measured,a burner is the starting point.<br>The burner's height is 600mm from the tray bottom. |



| レベルC Level C                  | 試験概要 Test outline                                                                                                                                                              | 試験機 Apparatus                                                                                                                                                                                                                                                                                                           |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VW-1                          | 試験試料：610mm×1本<br>バーナー：チリルバーナー<br>燃焼時間：15秒間あて、15秒間休止を5回行う。<br>判定基準：<br>①いずれの接炎によっても60秒を超えて有炎燃焼しないこと。<br>②5回の接炎中又は炎を取り去った後の損傷が25%を越えないこと。<br>③有炎若しくは、赤熱燃焼物又は有炎落下物により脱脂綿が着火しないこと。 | Sample : 610mm×1<br>Flame application time : 15 sec combustion and 15 sec stop → 5 times<br>Judgement standard :<br>①In all flame test, combustion time is not over 60 sec.<br>②The damage does not exceed 25% during the flame test or after removing the flame.<br>③Cotton do not catch fire by the flame or flaming. |
| FT1                           | 試験試料：610mm×1本<br>バーナー：チリルバーナー<br>燃焼時間：15秒間あて、15秒間休止を5回行う。<br>判定基準：<br>①5回の接炎後、60秒を超えて有炎燃焼しないこと。<br>②炎を取り去った後、クラフト紙の標識の損傷が25%を越えないこと。                                           | Sample : 610mm×1<br>Flame application time : 15 sec combustion and 15 sec stop → 5 times<br>Judgement standard :<br>①After five flame tests, combustion time is not over 60 sec.<br>②The indicator flag's damage does not exceed 25% after removing the flame.                                                          |
| EN 50265-2-1<br>(IEC 60332-1) | 試験試料：600mm×1本<br>バーナー：IEC 60695-2-4/1に適合する、1kWのガスバーナー。<br>燃焼時間：試料の直径による。(例:直径≦25mmの時、60秒)<br>判定基準：<br>①燃焼後の上部固定部から上端燃焼部が50mm以上のこと。<br>②燃焼後の上部固定部から下端燃焼部が540mm以内のこと。            | Sample : 600mm×1<br>Burner : Conform to the IEC 60695-2-4/1, gas burner of 1kW<br>Flame application time : Depend on the sample diameter (ex. Diameter≦25mm, 60 sec)<br>Judgement standard :<br>①The length of cable damage = more than 50mm<br>②The length of downward limit of cable damage = less than 540mm         |



| レベルD Level D | 試験概要 Test outline                                                                                                                                                                                                  | 試験機 Apparatus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JIS C 3005   | ゴム・プラスチック絶縁電線試験方法 28.難燃<br>試験試料：300mm×1本<br>燃焼ガス：約37MJ/m³(900kcal/m³)工場用メタンガス<br>評価：<br>①水平試験：試料の中央部の下側に30秒以内で燃焼するまで当て、炎を静かに取り去った後、試料の燃焼の程度を調べる。<br>②傾斜試験：試料の下端から約20mmの位置に30秒以内で燃焼するまで当て、炎を静かに取り去った後、試料の燃焼の程度を調べる。 | Test methods for rubber or plastic insulated wires and cables.<br>Sample : 300mm×1<br>Gas : About 37MJ/m³(900kcal/m³), Methane(Factory use)<br>Evaluation :<br>①Horizontal flame test : The bottom of the central part of the sample is exposed to flame till combustion, less than 30 sec.<br>Examine degree of the damage after removing the flame.<br>②Slant flame test : After 20mm parts from the bottom edge of the sample is exposed to flame till combustion, less than 30 sec.<br>Examine degree of the damage after removing the flame. |



IEC：国際電気標準会議 International Electrotechnical Commission  
UL：アンダーライターズ ラボラトリー Underwriters Laboratories  
JIS：日本工業規格 Japan Industrial Standard  
CSA：カナディアンスタンダード Canadian Standard Association  
JCS：日本電線工業会 Japanese Cable Makers' Association Standard  
PSE：電気用品安全法 Denan Law

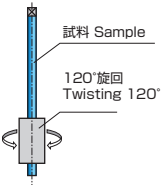
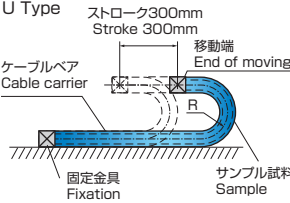
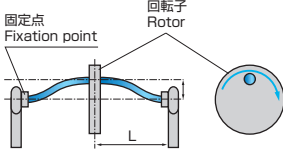
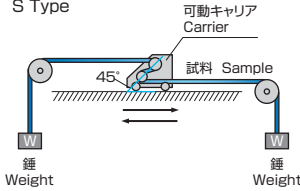
耐屈曲性  
Flexing

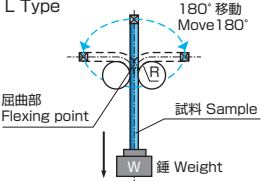
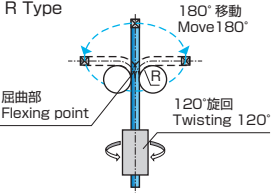
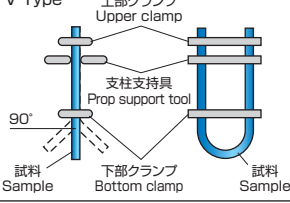
■耐屈曲レベル Flexing level

| 条件<br>Condition | A                  | B                 | C                 | D                 |
|-----------------|--------------------|-------------------|-------------------|-------------------|
| C型屈曲<br>C Type  | ≥10,000,000回/cycle | ≥5,000,000回/cycle | ≥3,000,000回/cycle | <3,000,000回/cycle |
| U型屈曲<br>U Type  | ≥10,000,000回/cycle | ≥3,000,000回/cycle | ≥1,000,000回/cycle | <1,000,000回/cycle |
| O型屈曲<br>O Type  | ≥5,000,000回/cycle  | ≥3,000,000回/cycle | ≥1,000,000回/cycle | <1,000,000回/cycle |
| S型屈曲<br>S Type  | ≥5,000,000回/cycle  | ≥1,000,000回/cycle | ≥500,000回/cycle   | <500,000回/cycle   |

| 条件<br>Condition | A                 | B               | C               | D               |
|-----------------|-------------------|-----------------|-----------------|-----------------|
| L型屈曲<br>L Type  | ≥2,000,000回/cycle | ≥500,000回/cycle | ≥300,000回/cycle | <300,000回/cycle |
| R型屈曲<br>R Type  | ≥1,000,000回/cycle | ≥300,000回/cycle | ≥100,000回/cycle | <100,000回/cycle |
| V型屈曲<br>V Type  | ≥300,000回/cycle   | ≥100,000回/cycle | ≥20,000回/cycle  | <20,000回/cycle  |

※ 屈曲回数は参考値であり保証値ではありません。  
※ This data is reference value.

| 試験 Type                        | 試験概要 Test outline                                                                                                                                                                                                                                                                                                                                                | 試験機 Apparatus                                                                                                |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| C型屈曲試験<br>(捻回試験)<br>C Type     | 試験機の両端を固定し、一端を60回/minの速度で左右60°捻回させることを繰り返し、外層の異常、導体の断線を検証する。<br><br>● Twisting at speed of 60times/min.<br>● Twisting each reversal 60°.<br>● The outer damage and the conductor disconnection are inspected.                                                                                                                                                    | C型屈曲試験構造図<br>C Type<br> |
| U型屈曲試験<br>(ケーブルベア試験)<br>U Type | 一般的なケーブルベアにケーブルを通し、200回/minの速度、300mmの間隔で屈曲を繰り返し外装の異常、導体の断線を検証する。<br>R=12.5, 35, 55 or 75<br><br>● Bending at speed of 200times/min.<br>● Stroke is 300mm.<br>● The outer damage and the conductor disconnection are inspected.                                                                                                                                   | U型屈曲試験構造図<br>U Type<br> |
| O型屈曲試験<br>(曲げ試験)<br>O Type     | 試験方法は、JIS C 3005の4.27-1項のキャプタイヤ構造に準じる。<br>試験装置にL=300,r=100の寸法に取り付け、回転子を20回/minの速度で回転させた時、外層の異常、導体の断線を検証する。<br><br>● The test method is based of JIS C 3005.<br>● Turning the rotor at speed of 20times/min.<br>● The outer damage and the conductor disconnection are inspected.                                                                                 | O型屈曲試験構造図<br>O Type<br> |
| S型屈曲試験<br>(移動曲げ試験)<br>S Type   | 試験方法は、EN 50396 Flexing Test に準拠。<br>試験機の2つの滑車にS字を描くようにケーブルを配置し、その両端に錘を配置する。滑車を1mの間隔を左右に0.33m/sの速度で移動させ、外装の異常、導体の断線を検証する。<br>錘及び滑車の直径の条件は、導体サイズとコア数によって変わる。<br><br>● The test method is based on Flexing test of EN 50396.<br>● The carrier makes cycle 1m.<br>● Moving at speed of 0.33m/s.<br>● The outer damage and the conductor disconnection are inspected. | S型屈曲試験構造図<br>S Type<br> |

| 試験 Type                         | 試験概要 Test outline                                                                                                                                                                                                                                                                                                                                                                | 試験機 Apparatus                                                                                                |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| L型屈曲試験<br>(90°折り返し試験)<br>L Type | 試験方法はMIL-C-13777に準拠。<br>試験機に片端を固定して他端に、規定された錘を吊るす。装置を60回/minの速度で屈曲を繰り返し、外装の異常、導体の断線を検証する。<br><br>R = 6D (D=Cable diameter)<br><br>W = 総断面積 × 150g<br>W = Total cross-sectional area × 150g<br><br>※最小：500g min：500g<br><br>● The test method is based on MIL-C-13777.<br>● Bending at speed of 60times/min.<br>● The outer damage and the conductor disconnection are inspected. | L型屈曲試験構造図<br>L Type<br> |
| R型屈曲試験<br>(ロボット試験)<br>R Type    | 試験方法は、L型屈曲試験、C型屈曲試験を組み合わせた試験とする。<br>一端をL型屈曲試験機に固定させ、もう一端を捻回試験機に固定し、60回/minの速度で移動させ、外装の異常、導体の断線を検証する。<br><br>R = 6D (D=Cable diameter)<br><br>● The test method is combined L type and C type test.<br>● Bending at speed of 60times/min.<br>● The outer damage and the conductor disconnection are inspected.                                                                    | R型屈曲試験構造図<br>R Type<br> |
| V型屈曲試験<br>(耐震試験)<br>V Type      | 試験方法は、電気用品安全法の耐震試験に順ずる。<br>試験機にケーブルをU字に固定する。(V型屈曲試験構造図参照) 下側の固定部を屈曲支持具を中心に左右45°の角度を、200回/minの速度で屈曲させ、外装の異常、導体の断線を検証する。<br><br>● The test method is based on the Quake-resistant test of Denan Law.<br>● Bending each side 45°.<br>● Bending at speed of 200times/min.<br>● The outer damage and the conductor disconnection are inspected.                                       | V型屈曲試験構造図<br>V Type<br> |

耐ノイズ性  
Noise resistance

■耐ノイズレベル Noise resistance level

| 項目<br>Contents         | A | B   | C   | D   |
|------------------------|---|-----|-----|-----|
| 編組シールド<br>Braid shield | ○ | ○   | --- | --- |
| ツイストペア<br>Twisted pair | ○ | --- | ○   | --- |

耐候性(耐紫外線)  
Weather (UV) resistance

■耐候性レベル Weather resistance level

| 項目<br>Contents     | A                                                                                           | B                                | C                                              | D                                             |
|--------------------|---------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------|-----------------------------------------------|
| 色<br>Color         | 耐候性(耐紫外線)への用途には黒色のケーブルを推奨いたします。<br>Black color is recommended for weather resistance cable. |                                  |                                                |                                               |
| ケーブル<br>Cable type | ケーブル 黒色<br>Cable type color Black                                                           | 単線 黒色<br>Single wire color Black | ケーブル 黒色以外<br>Cable type other than color Black | 単線 黒色以外<br>Single wire other than color Black |
| 変化率(%)             | < -20 %                                                                                     | < -30 %                          | < -40 %                                        | < -50 %                                       |

※耐候性試験前の強度、伸び値に対する試験後の変化率  
※Difference between the value after aging and the value without aging.

【ノイズについて】

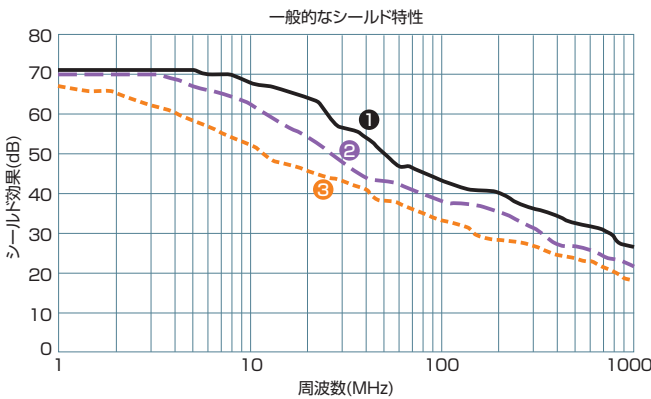
ノイズが発生する要因としては、『静電誘導』、『電磁誘導』等があります。

【『静電誘導』について】

静電誘導を阻止するのが静電シールドです。(銅シールドなどがあります。)  
銅シールドは安価で加工がしやすく、汎用性に富んでいます。  
但し、静電誘導に対してのみ効果を発揮し、電磁誘導には効果を発揮しません。

シールドの種類

- ① 編組シールド：低域周波数のノイズを抑える目的に最適
- ② スパイラルシールド(横巻シールド)：屈曲性、曲げ性良好
- ③ アルミポリエステルシールド：軽量で密度100%



【『電磁誘導』について】

電磁誘導を阻止するのが磁気シールドです。  
電磁誘導によるノイズ対策としては、通常、ツイスト線を用います。  
これにより、電磁誘導が起こっても、その影響を各線が打ち消し合うため約80～90%程度はノイズを減らすことが可能となります。

【EMC対策について】

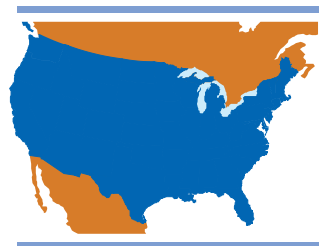
EMC (Electro-Magnetic Compatibility) とは、電磁両立性、電磁環境両立性と言われ、電気機器などが備える、電磁的なノイズ渉性および耐性についての規定がされています。  
EMI (Electro Magnetic Interference) : 電子機器においてそれ自体が受ける影響に関する規定 EMS (Electro Magnetic Specification) : 他の機器に対して影響を与えるノイズの発生に対して制限を設ける規定 これらをまとめて EMC と呼ばれます。  
これらの規定は、ケーブルを含む電子機器全体に対して規制される事が一般的となっています。これは、同じケーブルを用いたとしても、電子機器の組み合わせや動作周波数といった要因により、全体のシールド効果が変わってしまう為です。ケーブルのシールド特性の要求として、EN 50525-2-51 の Transfer Impedance (表面伝達インピーダンス) が規定されており、弊社のシールド付きケーブルは、表面伝達インピーダンスの要求値、"250mΩ/m 以下: 30MHz" に適合しておりますので、EMC 指令 (2014/30/EU) の EMC 対策に有効です。

■キセノンウェザーメータ促進耐候性試験 Xenon weatherometer test

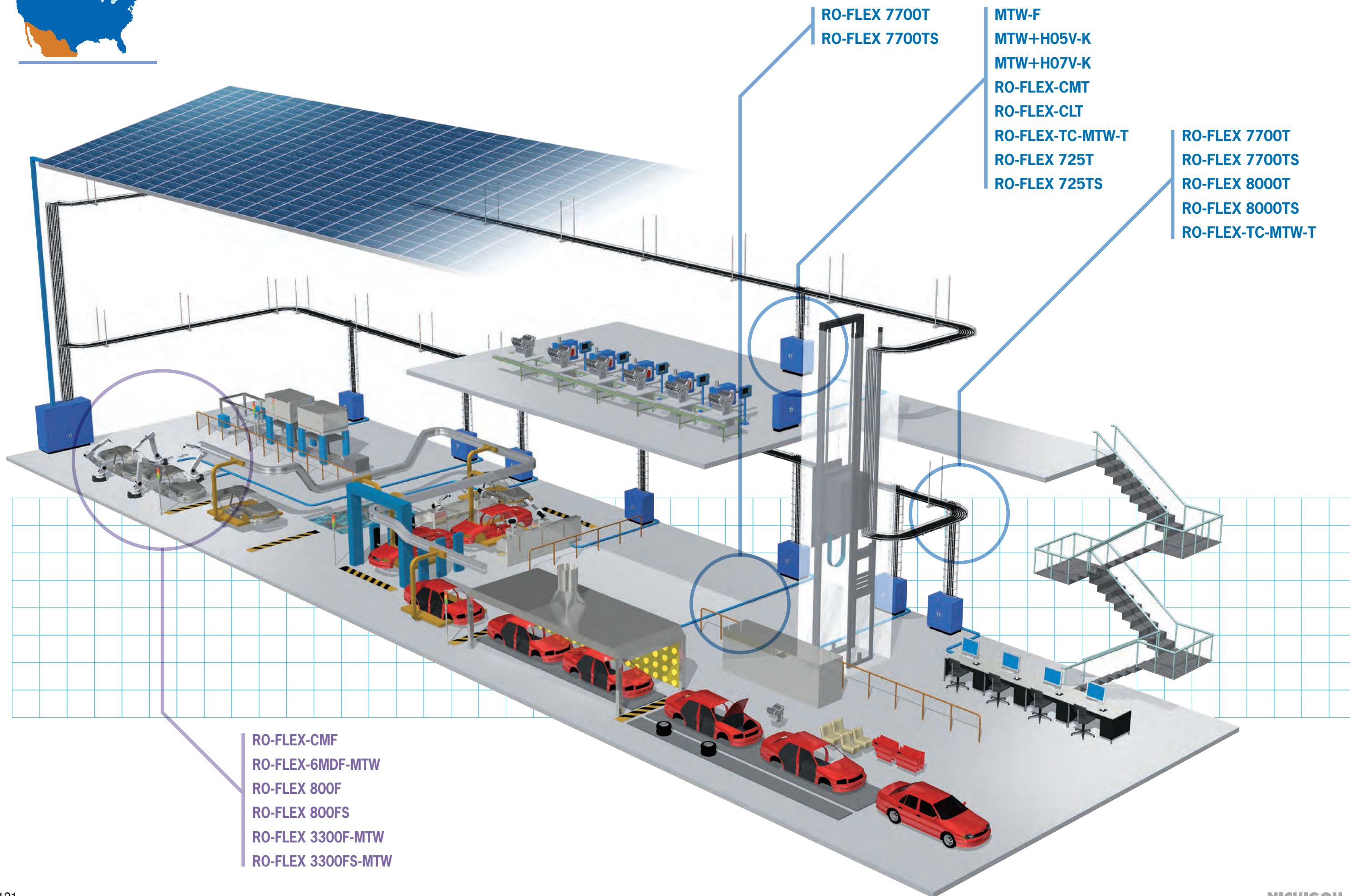
試験条件 Test condition [適用規格: ISO 4892-2 Method A]

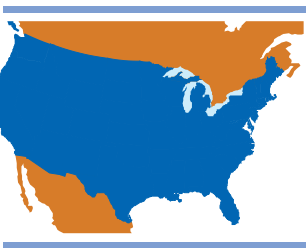
| 項目 Item                            | 内容 Contents                                            |
|------------------------------------|--------------------------------------------------------|
| 光源<br>Light source                 | 水冷7kWキセノンランプ使用/7kW Xenon-arc lamp                      |
| 試験時間<br>Test time                  | 720時間/720hours                                         |
| 試験サイクル<br>Spray cycle              | 102分照射/Dry interval between spraying : 102min ± 0.5min |
|                                    | 18分噴霧/Duration of spraying : 18min ± 0.5min            |
| 照度<br>Relative spectral irradiance | 550W/m <sup>2</sup> (290~880nm)                        |
| 試験温度<br>Black-panel temperature    | 65±3℃                                                  |
| 試験湿度<br>Relative humidity          | 50±5%                                                  |

※本データは実測値であり保証値ではありません。  
※This data is only for reference value.



製品使用例  
Wiring model





規格について  
About Cable Standards

NFPA 70 アメリカ電気工事基準  
National Electrical Code

別名NEC「National Electrical Code」と言われ、人的及び設備に関して電気使用の観点から安全を実践的に確保する為に発刊された規格です。各種アメリカ法令に採用され、実質的な安全基準となっています。

NFPA 70 is generally called NEC. This is a safety standard in the United States for the person and equipment electrically.

|             |                                       |
|-------------|---------------------------------------|
| Article 310 | 一般配線<br>Conductors for General Wiring |
|-------------|---------------------------------------|

|                                                                           |                                                |
|---------------------------------------------------------------------------|------------------------------------------------|
| ■タイプレター/Type Letter                                                       | ■UL規格/UL Standard                              |
| MTW：耐熱・耐湿・耐油性-熱可塑性樹脂<br>Moisture-, heat-, and oil-resistant thermoplastic | UL 1063：Machine-Tool Wires and Cables          |
| THHW：耐熱・耐湿性-熱可塑性樹脂<br>Moisture-, and heat-resistant thermoplastic         | UL 83：Thermoplastic-Insulated Wires and Cables |
| TW：耐湿性-熱可塑性樹脂<br>Moisture-resistant thermoplastic                         | UL 44：Thermoset-Insulated Wires and Cables     |
| XHHW-2：耐湿熱硬化性樹脂<br>Moisture-resistant thermoset                           | その他/other                                      |
| その他/other                                                                 |                                                |

|             |                                                             |
|-------------|-------------------------------------------------------------|
| Article 336 | 電力及び制御トレイケーブル:タイプTC<br>Power and Control Tray Cable：Type TC |
|-------------|-------------------------------------------------------------|

|                                    |                                                                                         |
|------------------------------------|-----------------------------------------------------------------------------------------|
| ■タイプレター/Type Letter                | ■UL規格/UL Standard                                                                       |
| TC/TC-ER：ケーブルトレイでの使用<br>Tray Cable | UL 1277：Electrical Power and Control Tray Cables<br>with Optional Optical-Fiber Members |

|             |                                                    |
|-------------|----------------------------------------------------|
| Article 400 | 可とうコード及びケーブル<br>Flexible Cords and Flexible Cables |
|-------------|----------------------------------------------------|

|                                   |                                 |
|-----------------------------------|---------------------------------|
| ■タイプレター/Type Letter               | ■UL規格/UL Standard               |
| ST：Hard service cord              | UL 62：Flexible Cords and Cables |
| STO：Hard service cord-耐油性         |                                 |
| SJT：Junior hard service cord      |                                 |
| SJTO：Junior hard service cord-耐油性 |                                 |

|             |                      |
|-------------|----------------------|
| Article 402 | 取付線<br>Fixture Wires |
|-------------|----------------------|

|                                                                                   |                    |
|-----------------------------------------------------------------------------------|--------------------|
| ■タイプレター/Type Letter                                                               | ■UL規格/UL Standard  |
| TFF：熱可塑性樹脂で被覆された取付線－可動導体<br>Thermoplastic covered fixture wire－flexible stranding | UL 66：Fixture Wire |
| その他/other                                                                         |                    |

|             |                                                                                   |
|-------------|-----------------------------------------------------------------------------------|
| Article 722 | 電力制御回路用ケーブル<br>Cables for Power-Limited Circuits and Fault-Managed Power Circuits |
|-------------|-----------------------------------------------------------------------------------|

|             |                                                                |
|-------------|----------------------------------------------------------------|
| Article 725 | クラス2, クラス3電力制御回路<br>Class 2 and Class 3 Power-Limited Circuits |
|-------------|----------------------------------------------------------------|

|                                                 |                                                          |                                    |
|-------------------------------------------------|----------------------------------------------------------|------------------------------------|
| ■タイプレター/Type Letter                             |                                                          | ■UL規格/UL Standard                  |
| CL3P：Class 3 回路用プレナムケーブル<br>Class3 plenum cable | CL3：Class 3 回路用ケーブル<br>Class 3 general-purpose cable     | UL 13：Power-Limited Circuit Cables |
| CL2P：Class 2 回路用プレナムケーブル<br>Class2 plenum cable | CL2：Class 2 回路用ケーブル<br>Class 2 general-purpose cable     |                                    |
| CL3R：Class 3 回路用ライザーケーブル<br>Class3 riser cable  | CL3X：Class 3 回路用ケーブル[限定使用]<br>Class 3 cable, limited use |                                    |
| CL2R：Class 2 回路用ライザーケーブル<br>Class2 riser cable  | CL2X：Class 2 回路用ケーブル[限定使用]<br>Class 2 cable, limited use |                                    |
| PLTC：電力制限トレイケーブル<br>Power-limited tray cable    |                                                          |                                    |

|             |                                                                       |
|-------------|-----------------------------------------------------------------------|
| Article 800 | 通信システムに関する一般的な要求事項<br>General Requirements for Communications Systems |
|-------------|-----------------------------------------------------------------------|

|             |                                 |
|-------------|---------------------------------|
| Article 805 | 通信回路<br>Communications Circuits |
|-------------|---------------------------------|

|                                                         |                              |
|---------------------------------------------------------|------------------------------|
| ■タイプレター/Type Letter                                     | ■UL規格/UL Standard            |
| CMP：通信プレナムケーブル<br>Communications plenum cable           | UL 444：Communications Cables |
| CMR：通信ライザーケーブル<br>Communications riser cable            |                              |
| CM/CMG：通信汎用ケーブル<br>Communications general-purpose cable |                              |
| CMX：通信ケーブル[限定使用]<br>Communications cables, limited use  |                              |

■許可される代替ケーブル/Cable Substitutions

| ケーブルタイプ<br>Cable type | 許可代替ケーブル<br>Permitted Subsitiutions |
|-----------------------|-------------------------------------|
| CMR                   | CMP                                 |
| CMG, CM               | CMP, CMR                            |
| CMX                   | CMP,CMR, CMG, CM                    |

■ケーブル置換階層/Cable Substitution Hierarchy

プレナム  
Plenum

CMP

立上り管  
Riser

CMR

一般  
General purpose

CMG, CM

住居  
Dwellings

CMX

タイプCM/通信ケーブル  
Type CM/Communication cables

A

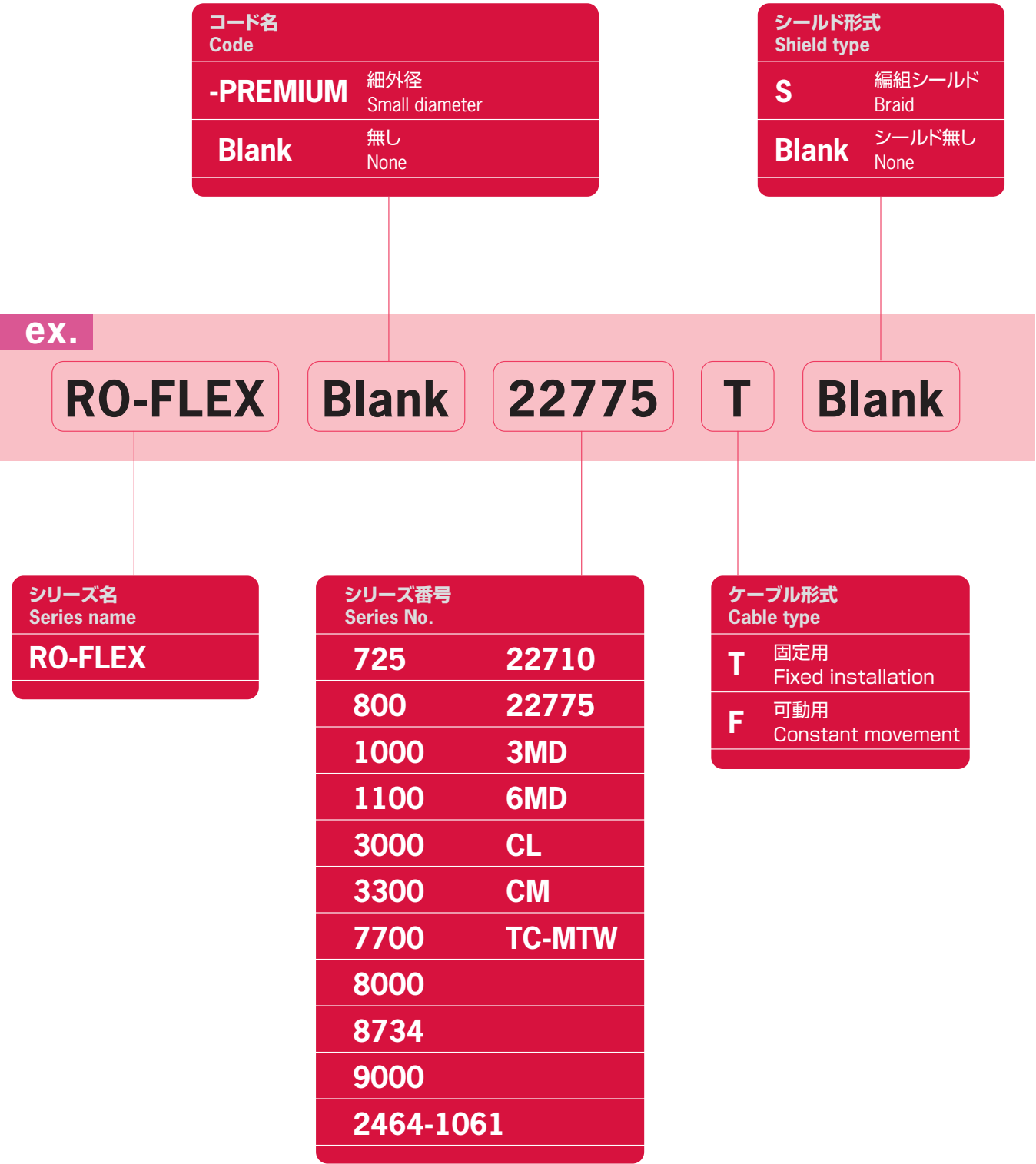
B

ケーブルAは、ケーブルBの代わりに用いることができる。  
Cable A shall be permitted to be used in place of cable B.

| ■許可される代替ケーブル/Cable Substitutions |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| ケーブルタイプ<br>Cable type            | 許可代替ケーブル<br>Permitted Subsitiutions                                  |
| CL3P                             | CMP                                                                  |
| CL2P                             | CMP, CL3P                                                            |
| CL3R                             | CMP, CL3P, CMR                                                       |
| CL2R                             | CMP, CL3P, CL2P, CMR, CL3R                                           |
| PLTC                             | －                                                                    |
| CL3                              | CMP, CL3P, CMR, CL3R, CMG, CM, PLTC                                  |
| CL2                              | CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3                 |
| CL3X                             | CMP, CL3P, CMR, CL3R, CMG, CM, PLTC, CL3, CMX                        |
| CL2X                             | CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3, CL2, CMX, CL3X |

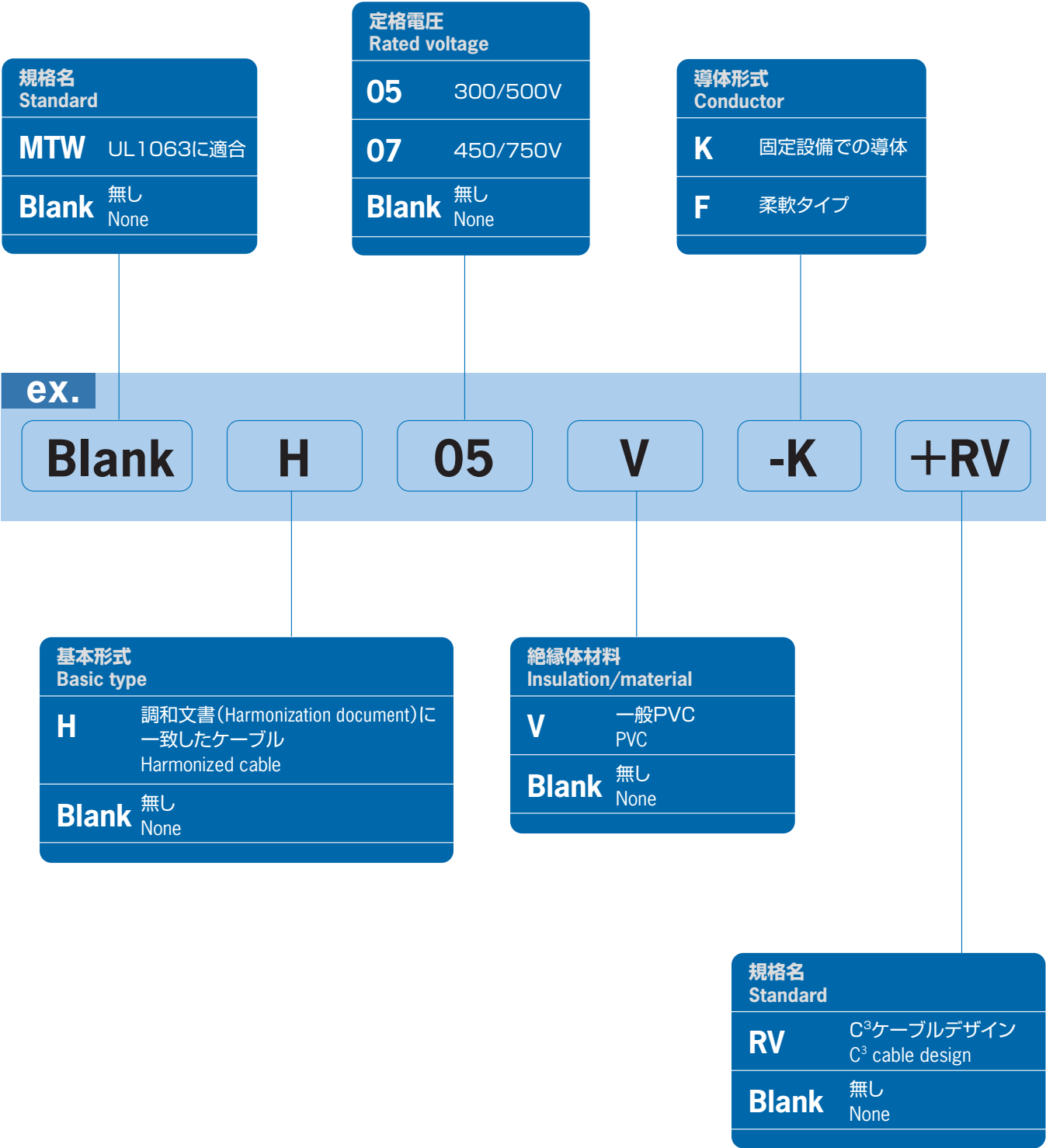
W.W.S.C.シリーズ構成[ケーブル]

Cable abbreviation [WORLD WIDE STANDARD CABLE-Series]



W.W.S.C.シリーズ構成[単線]

Wire abbreviation [WORLD WIDE WIRE-Series]



# ■認証機関について

## 国際規格

国際規格は電気関連の**IEC規格**と電気以外(機械、管理など)の**ISO規格**から構成されています。

### IEC(International Electrotechnical Commission)

- 電気に関する国際規格の統一と協調を促進するために、1908年に創設された標準化機構で、本部はスイスのジュネーブに置かれています。
- この目的を達成するためにIEC規格を発行します。  
IECの加盟国が国家規格を制定する際にはこのIEC規格に準拠して作成するよう強く勧告しています。
- IEC規格の作成委員会の中に**CISPR**(International Special Committee on Radio Interence)という、いわゆる**EMC**(Electro-Magnetic Compatibility)電磁環境両立性の規格の作成委員会があります。
- 現在IECの加盟国は62カ国で、規格の各国代表により最新の科学技術に基づく電気の技術基準としてIEC規格が発行され、世界各国の安全規格はこのIEC規格がベースになっています。
- IEC規格に基づき電気機器の安全性試験を行い適合を証明する証書(CB証明書)を利用して各国の認証手続を簡略化し貿易の促進を図る国際的制度が設立され、**CB制度**(Certification Body Scheme)と呼ばれています。**CB制度**により30カ国の認証を取得することもできます。

### ISO (International Organization for Standardization)

- ISOはIECの担当する電気の規格以外の全ての分野(機械、管理など)の国際規格の標準化を推進するための組織で1947年から正式に活動を開始し、ISO規格を発行しています。ISOの中央事務局はスイスのジュネーブに置かれています。

## 欧州

### EN (European Norm) 欧州規格

- 電気関連のEN規格(EN 60000)はIEC規格をベースに感電対策などの要求事項が追加され作成されています。
- EN規格が無いときはIEC規格がEN規格の代行をします。



CE MARKING

- 欧州各国間及び欧州と日本や北米との貿易はEN規格に基づく製品で輸出・輸入されますが特に12種類(機械、低電圧、EMC機器など)の工業製品にはCEマーキングの表示が義務づけられています。CEマーキングは製品に関連するすべてのEC指令を満足して初めてCEマーキングを表示することができます。(例えば機械では機械指令、MC指令、低電圧指令などを満足することが必要です。)
- EN規格に基づく欧州各国の認定マークを下記に示します。

### VDE (Verband Deutscher Electrotechnischer e.V.)ドイツ



VDE <電気機器のみ>



TÜV <電気機器、機械および自動車>

### UKCA(UK Conformity Assessed) 英国(イングランド、ウェールズ、スコットランド)



UKCAマーク

英国のEU離脱に伴い新たにUKCA(UK Conformity Assessed)マークが導入されました。英国(イングランド、ウェールズ、スコットランド)で流通・販売される製品にはこのマークが必要になります。規範的な証明として英国規格(BS)を参照することになります。



## オーストラリア

### RCMマーク (Regulatory Compliance Mark)



RCMマーク

電気用品安全管理制度の変更に**統一されたオーストラリアの統一認証マーク**

オーストラリアで流通や販売される電気用品は各州ごとに規制がありましたが、RCMマークに統一され、登録制度など整備されています。オーストラリア市場に規制対象の製品を流通させるには、該当する技術基準の評価を行い、ナショナルデータベースに登録し、認証マークを貼付する必要があります。

## 中国

### CCC (China Compulsory Certification) 中国強制認証



認証マーク

中国政府はWTO(世界貿易機関)への加盟に伴い、2003年8月1日より電気製品や通信機器、自動車安全部品など、高い安全性が要求される製品を対象とした強制認証制度**CCC**(China Compulsory Certification)マークを導入しました。これにより、この認証制度の対象となる製品を中国に輸出するには、中国の国家検査機関の審査が必要となります。

## 韓国

### KCマーク (Korea Certification Mark) 韓国の国家統合認証マーク



KCマーク

KCマーク(Korea Certification Mark)は、韓国の電波法・電気通信基本法、電気用品安全管理法、品質管理及び工業製品安全管理法に基づきそれぞれの適合性が確認された製品に表示される国家統合認証マークです。対象製品を韓国市場へ出荷する場合は製品の適合性評価を行い、KCマークを表示する必要があります。

## ロシア

### EAC



EACはロシア、カザフスタン、ベラルーシへの輸出をする際に避けて通れない製品規格です。GOST R(ロシア)等の各国の認証制度から3ヶ国共通のEAC認証に移行しました。電線は低電圧機器に該当しEACへ移行しましたが、GOST Rのままの機器も存在しています。

## 日本

### 電気用品安全法



特定電気用品

第三者検査機関制度を活用した自己確認制です。国としては、事後規制が中心です。

■電気用品の対象品目であることを示す表示

### JIS (日本工業規格 Japanese Industrial Standards)



認証マーク

日本の国家規格として工業標準化法に基づいて制定されます。特に1995年以降は国際規格IEC規格/ISO規格と整合した規格が数多く作成されるようになりました。

## 北米

### UL (Underwriters Laboratories Inc.)



LISTING



RECOGNITION



- 1894年、米国火災保険業社組合により創設された非営利試験機関で、あらゆる電気製品についての認可試験を行っており、米国での電気製品の販売にあたっては、UL認可取得が各州の州法や都市の条例により、強制されているところが多くあります。UL認可取得のためには、電気製品に内蔵される主要部品についてもUL認可取得品の使用が必要です。
- UL認可方式は二つに大別され、一つはLISTINGと呼ばれ、機器に対するもので無条件認定とでもいうべきものです。LISTINGで認可された製品には、左上のマークを表示します。もう一つは、RECOGNITIONと称し、機器内蔵用部品に対するもので条件つき認定のものです。RECOGNITIONで認定された製品には、左下のマークを表示しますが、マイクロスイッチ以外での使用は任意となっています。

ULはCSAと規格の整合化を計り、MRA(Mutual Recognition Agreement)相互認証制度の採用、さらにIEC規格との整合化を行っています。

- 1992年10月にULはSCC(カナダ規格審議会)よりCO(カナダ安全認証機関)およびTO(試験機関)という地位を公式に授与されました。これによりULは安全試験を実施して、カナダ規格適合の認証を発行する権限を持ちました。左記マークはULがカナダ規格への適合を表すカナダ向けULマークです。

### ■LISTINGマーク

| アメリカ向けマーク | カナダ向けマーク | アメリカ/カナダ向けマーク |
|-----------|----------|---------------|
|           |          |               |

### ■RECOGNITIONマーク

| アメリカ向けマーク | カナダ向けマーク | アメリカ/カナダ向けマーク |
|-----------|----------|---------------|
|           |          |               |

### CSA (Canadian Standards Association)



- 1919年に非営利、非政府機関の標準化団体として設立されたものが母体となって現在では工業標準化以外に電気製品を対象とした安全試験も行っています。  
ULに比べ、政府等官公庁とのつながりは深く、CSAに認定されていない製品はカナダ国内で販売してはならないことになっており、これに違反した場合は回収命令が出されることもあります。
- 認可は、CERTIFICATIONと称し、認可された製品や部品はCERTIFIEDEQUIPMENTとよばれ、左図のマークを表示することになっています。
- CSA規格はUL規格、IEC規格との整合化を行っています。

## ブラジル

### INMETRO

(The National Institute of Metrology Standardization and Industrial Quality)



INMETRO

### ブラジル国家認定機関

- ブラジル国内で流通・販売する際に必要な強制認証マークで、スイッチ、プラグ、コンセント、コード、ブレーカー、医療機器、防爆機器、安定器などの製品が対象となっております。これらの製品に対して第三者認証機関発行の認定書の取得が必須となります。

### ■規格

- |                 |              |                             |
|-----------------|--------------|-----------------------------|
| 1. NBR NM 247-3 | 450/750V 単線  | 0.5~240mm <sup>2</sup>      |
| 2. NBR 7288     | 0.6/1kV ケーブル | 1.5~35mm <sup>2</sup> 2c~5c |
| 3. NBR 7289     | 0.6/1kV ケーブル | 0.5~2.5mm <sup>2</sup> 2c~  |

## 半導体業界

### SEMI® (Semiconductor Equipment and Materials International)

半導体業界の自主規格で主に米国向け半導体装置の安全性評価にSEMI安全ガイドラインが使用されます。

## RoHS指令について

| 種 類       | 物 質 名                                                                              |
|-----------|------------------------------------------------------------------------------------|
| 重金属       | ●鉛<br>●水銀<br>●カドミウム<br>●六価クロム                                                      |
| 臭素系難燃剤    | ●PBB(ポリブロモビフェニル)<br>●PBDE(ポリブロモジフェニルエーテル)<br>備考：不完全燃焼によるダイオキシンが発生する可能性があるため        |
| フタル酸エステル類 | ●DEHP(フタル酸ジ-2-エチルヘキシル)<br>●DBP(フタル酸ジブチル)<br>●BBP(フタル酸ブチルベンジル)<br>●DIBP(フタル酸ジイソブチル) |

- 1.大型家庭用電気機器
- 2.小型家庭用電気機器
- 3.ITおよび電気通信装置
- 4.民生用電器機器
- 5.照明装置
- 6.電気電子工具(大型の定置工作機を除く)
- 7.玩具、レジャーおよびスポーツ用品
- 8.医療機器
- 9.監視および制御装置
- 10.自動販売機
- 11.上記のカテゴリーに適用されないその他の電気電子機器

※除外される製品はあるものの基本的には定格電圧でAC1,000V以下またはDC1,500V以下の電気電子機器は全て対象製品になります。またRoHS適合品(RoHS指令対応品)には、EUへの上市前にCEマークを貼付けする必要があります。

注釈：上記は弊社が独自に調査した結果であり実際の指令を満たすものではありません。実際の指令適合にあたっては原文「2011/65/EU」をご参照下さい。