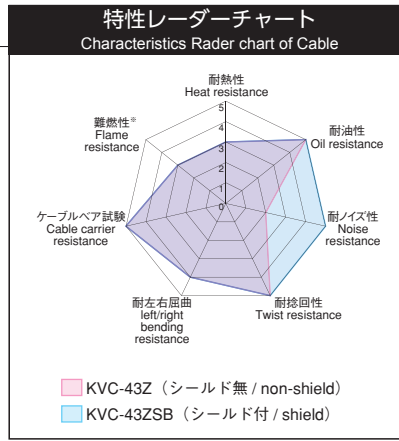


# KVC-43Z KVC-43ZSB

クラモ電子機器配線用ケーブル  
KURAMO Electronic Equipment Connection Cable

## UL AWM 2936/2576



※サイズによって難燃レベルが異なります。テクニカルデータの“難燃性”をご参照ください。  
Flame resistance level of cable varies according to size. Refer to “Flame resistance” in [ Technical data ] given below.

### 用途 / Use

- ケーブルベア・ロボットの配線  
Wiring to cable carriers and robots
- 油環境下での配線  
Wiring in oil environment
- 耐ノイズ性要求箇所への配線 (シールド付タイプ: KVC-43ZSB)  
Wiring to the portion requiring noise resistance (Shielded type: KVC-43ZSB)

### 特長 / Features

- UL,cUL AWM 対応  
UL,cUL compliance
- 耐熱・耐油・耐屈曲性・可動用  
Heat resistance, oil resistance, bending resistance, movable
- 素線径 0.08mm可とうより線 (中心補強紐入り)  
Flexible 0.08mm wire strand (containing reinforcement cord at its center)
- シースつや消し  
Sheath mat type
- 耐ノイズ性 (シールド付タイプ: KVC-43ZSB)  
Noise resistance (Shielded type: KVC-43ZSB)

### 認証 / Approvals



#### 使用温度範囲 / Temperature range

- 固定時 / Fixed: -30 ~ 80°C ※
  - 可動時 / Flexing: 0 ~ 80°C
- ※ 0°C以下でご使用の際は、衝撃・屈曲・振動等の外的力が加わらないようにしてください。  
If you use it in temperature less than 0°C, you should be careful about shocks, flexure, vibration and so on.

#### 曲げ半径 / Bending radius

- 固定時: ケーブル外径の4倍以上推奨  
Fixed: 4 times or more of the cable diameter
- 可動時: ケーブル外径の7.5倍以上推奨  
Flexing: 7.5 times or more of the cable diameter

#### RoHS 指令 / RoHS Directive

- 適合 / Conformity

### テクニカルデータ / Technical data

| ケーブルタイプ / Cable designation | UL, cUL                               |                                       |
|-----------------------------|---------------------------------------|---------------------------------------|
| 適用サイズ / Adaptation size     | 1P,2P                                 | 3P ~ 25P                              |
| 定格電圧 / Voltage rating       | 150V                                  |                                       |
| 定格温度 / Temperature rating   | 80°C                                  |                                       |
| 試験電圧 / Test voltage         | AC1500V・1min                          |                                       |
| 難燃性 / Flame resistance      | FT2                                   | VW-,FT1                               |
| 適用規格 / Adaptation standard  | UL AWM style 2936<br>CSA C22.2 No.210 | UL AWM style 2576<br>CSA C22.2 No.210 |

▲ KVC-43Z, KVC-43ZSB は電気用品安全法が適用されませんので、信号及び通信回路などの弱電流回路にご使用下さい。  
KVC-43Z and KVC-43ZSB are excluded to “Electrical Appliance and Material Safety Law”, for this reason, those cable should be used for cable connection to signal and communication circuits and other weak current electrical circuits JAPAN.

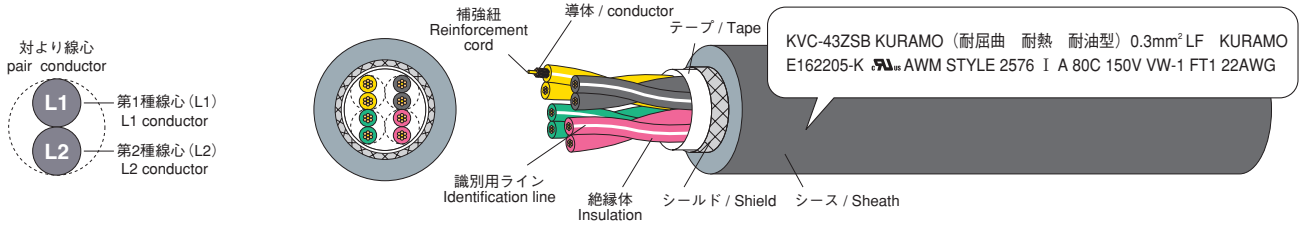
### 構造概略 / Construction

| 項目 / Item                 | 品名 / Code | KVC-43Z  | KVC-43ZSB  |
|---------------------------|-----------|--|--|
| 導体 / Conductor            |           | 軟銅複合より線 (中心補強紐入り) / Rope-lay stranded of annealed copper (containing reinforcement cord at its center) | 軟銅複合より線 (中心補強紐入り) / Rope-lay stranded of annealed copper (containing reinforcement cord at its center) |
| 絶縁体 / Insulation          |           | 耐熱性ビニル混合物 / Heat resistant PVC   | 耐熱性ビニル混合物 / Heat resistant PVC   |
| 対より / Conductor stranding |           | 線心を対より / Twisted pair  | 線心を対より / Twisted pair  |
| より合わせ / Pair strand       |           | 対より線心を円形により合わせ / Strands of twisted pair in circular form  | 対より線心を円形により合わせ / Strands of twisted pair in circular form  |
| テープ / Tape                |           | テープ重ね巻き / Tape wrap around cores   | テープ重ね巻き / Tape wrap around cores   |
| シールド / Shield             |           | —  | すずめっき軟銅線編組 / Tin coated annealed copper braid  |
| シース / Sheath              |           | 耐油・耐熱性ビニル混合物 (黒色) / Oil and heat resistant PVC (black)   | 耐油・耐熱性ビニル混合物 (黒色) / Oil and heat resistant PVC (black)   |

### 線心識別 / Conductors identification

| 対番号 / Pair No.   | 1                        |                          | 2                   |                       | 3                     |                        | 4                      |                        | 5                     |                       | 6                    |                      | 7                    |                      | 8                      |                        | 9                      |                        | 10                |                              | 11                   |                      |
|--|--------------------------|--------------------------|---------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|-------------------|------------------------------|----------------------|----------------------|
| 線心番号 / Conductor No.   | L1                       | L2                       | L1                  | L2                    | L1                    | L2                     | L1                     | L2                     | L1                    | L2                    | L1                   | L2                   | L1                   | L2                   | L1                     | L2                     | L1                     | L2                     | L1                | L2                           | L1                   | L2                   |
| 絶縁体色 / 識別ライン色<br>Insulation Color<br>Identification line Color | 黒<br>Black               | 黒/白<br>Black<br>White    | 赤<br>Red            | 赤/白<br>Red<br>White   | 緑<br>Green            | 緑/白<br>Green<br>White  | 黄<br>Yellow            | 黄/白<br>Yellow<br>White | 茶<br>Brown            | 茶/白<br>Brown<br>White | 青<br>Blue            | 青/白<br>Blue<br>White | 灰<br>Gray            | 灰/白<br>Gray<br>White | 橙<br>Orange            | 橙/白<br>Orange<br>White | 紫<br>Purple            | 紫/白<br>Purple<br>White | 若草<br>Light Green | 若草/白<br>Light Green<br>White | 桃<br>Pink            | 桃/白<br>Pink<br>White |
| 対番号 / Pair No.   | 12                       |                          | 13                  |                       | 14                    |                        | 15                     |                        | 16                    |                       | 17                   |                      | 18                   |                      | 19                     |                        | 20                     |                        | 21                |                              | 22                   |                      |
| 線心番号 / Conductor No.   | L1                       | L2                       | L1                  | L2                    | L1                    | L2                     | L1                     | L2                     | L1                    | L2                    | L1                   | L2                   | L1                   | L2                   | L1                     | L2                     | L1                     | L2                     | L1                | L2                           | L1                   | L2                   |
| 絶縁体色 / 識別ライン色<br>Insulation Color<br>Identification line Color | 空<br>Sky Blue            | 空/白<br>Sky Blue<br>White | 白<br>White          | 白/黒<br>White<br>Black | 緑/黒<br>Green<br>Black | 緑/赤<br>Green<br>Red    | 黄/黒<br>Yellow<br>Black | 黄/赤<br>Yellow<br>Red   | 茶/黒<br>Brown<br>Black | 茶/赤<br>Brown<br>Red   | 青/黒<br>Blue<br>Black | 青/赤<br>Blue<br>Red   | 灰/黒<br>Gray<br>Black | 灰/赤<br>Gray<br>Red   | 橙/黒<br>Orange<br>Black | 橙/赤<br>Orange<br>Red   | 紫/黒<br>Purple<br>Black | 紫/赤<br>Purple<br>Red   | 若草<br>Light Green | 若草/赤<br>Light Green<br>Red   | 桃/黒<br>Pink<br>Black | 桃/赤<br>Pink<br>Red   |
| 対番号 / Pair No.   | 23                       |                          | 24                  |                       | 25                    |                        |                        |                        |                       |                       |                      |                      |                      |                      |                        |                        |                        |                        |                   |                              |                      |                      |
| 線心番号 / Conductor No.   | L1                       | L2                       | L1                  | L2                    | L1                    | L2                     |                        |                        |                       |                       |                      |                      |                      |                      |                        |                        |                        |                        |                   |                              |                      |                      |
| 絶縁体色 / 識別ライン色<br>Insulation Color<br>Identification line Color | 空/黒<br>Sky Blue<br>Black | 空/赤<br>Sky Blue<br>Red   | 赤/黒<br>Red<br>Black | 赤/緑<br>Red<br>Green   | 黒/緑<br>Black<br>Green | 黒/黄<br>Black<br>Yellow |                        |                        |                       |                       |                      |                      |                      |                      |                        |                        |                        |                        |                   |                              |                      |                      |

■例示 / Example : KVC-43ZSB 4P × 0.3mm<sup>2</sup> (22AWG)



■構造表 / Construction table

| 導体 / Conductor                        |   | 絶縁 / Insulation                  |                            | 在庫 / Stocks         |                 | シールド無し / Non-shield                        |                                 | シールド付き / Shield                            |                                 | 電気特性 / Electrical characteristics |   |  |
|---------------------------------------|---|----------------------------------|----------------------------|---------------------|-----------------|--|---------------------------------|--|---------------------------------|-----------------------------------|---|--|
| 公称断面積<br>Nominal cross sectional area | 外径 (約mm)<br>Diameter (Approx.mm)<br>構成 / Construction | 外径 (約mm)<br>Diameter (Approx.mm) | 心数<br>Number of conductors | シールド無<br>Non-shield | シールド付<br>Shield | シース外径 (約mm)<br>Sheath diameter (Approx.mm) | 概算重量<br>Approx.weight (kg / km) | シース外径 (約mm)<br>Sheath diameter (Approx.mm) | 概算重量<br>Approx.weight (kg / km) | 許容電流<br>Allowable ampacity (A)    | 導体抵抗<br>Conductor resistance 20℃ (Ω / km) | 絶縁抵抗<br>Insulation resistance 20℃ (M Ω km) |
| 0.2mm <sup>2</sup><br><24AWG>         | 0.8<br><6/8/0.08>                                     | 1.4                              | 1P                         |                     |                 | 4.3  | 21                              | 4.8  | 30                              | 6                                 | 90.1 以下<br>(Max 90.1)                     | 10 以上<br>(Min 10)                          |
|                                       |   |                                  | 2P                         |                     |                 | 7.2  | 50                              | 7.7  | 65                              | 6                                 |   |  |
|                                       |   |                                  | 3P                         |                     |                 | 7.9  | 65                              | 8.4  | 80                              | 5                                 |   |  |
|                                       |   |                                  | 4P                         |                     |                 | 8.6  | 75                              | 9.1  | 95                              | 4                                 |   |  |
|                                       |   |                                  | 5P                         |                     |                 | 9.3  | 90                              | 9.8  | 110                             | 4                                 |   |  |
|                                       |   |                                  | 6P                         |                     |                 | 10.0                                       | 105                             | 11.0                                       | 125                             | 4                                 |   |  |
|                                       |   |                                  | 7P                         |                     |                 | 11.0                                       | 115                             | 11.5                                       | 140                             | 4                                 |   |  |
|                                       |   |                                  | 8P                         |                     |                 | 12.0                                       | 130                             | 12.5                                       | 155                             | 4                                 |   |  |
|                                       |   |                                  | 9P                         |                     |                 | 12.5                                       | 145                             | 13.0                                       | 175                             | 3                                 |   |  |
|                                       |   |                                  | 10P                        |                     |                 | 13.5                                       | 165                             | 14.0                                       | 200                             | 3                                 |   |  |
|                                       |   |                                  | 12P                        |                     |                 | 15.5                                       | 210                             | 16.0                                       | 245                             | 3                                 |   |  |
|                                       |   |                                  | 15P                        |                     |                 | 15.0                                       | 220                             | 15.5                                       | 250                             | 3                                 |   |  |
|                                       |   |                                  | 20P                        |                     |                 | 17.0                                       | 280                             | 17.5                                       | 320                             | 3                                 |   |  |
| 25P                                   |   |                                  | 19.5                       | 350                 | 20.0            | 395  | 2                               |  |                                 |                                   |   |  |
| 0.3mm <sup>2</sup><br><22AWG>         | 0.95<br><6/12/0.08>                                   | 1.55                             | 1P                         | ○                   | ○               | 4.6  | 25                              | 5.1  | 35                              | 8                                 | 56.9 以下<br>(Max 56.9)                     | 10 以上<br>(Min 10)                          |
|                                       |   |                                  | 2P                         | ○                   | ○               | 7.7  | 60                              | 8.2  | 80                              | 7                                 |   |  |
|                                       |   |                                  | 3P                         | ○                   | ○               | 8.4  | 75                              | 8.9  | 95                              | 6                                 |   |  |
|                                       |   |                                  | 4P                         |                     |                 | 9.1  | 95                              | 9.6  | 115                             | 6                                 |   |  |
|                                       |   |                                  | 5P                         |                     |                 | 9.9  | 110                             | 10.5                                       | 130                             | 6                                 |   |  |
|                                       |   |                                  | 6P                         | ○                   | ○               | 11.0                                       | 125                             | 11.5                                       | 150                             | 5                                 |   |  |
|                                       |   |                                  | 7P                         |                     |                 | 12.0                                       | 145                             | 12.5                                       | 170                             | 5                                 |   |  |
|                                       |   |                                  | 8P                         | ○                   | ○               | 12.5                                       | 165                             | 13.0                                       | 190                             | 5                                 |   |  |
|                                       |   |                                  | 9P                         |                     |                 | 14.0                                       | 200                             | 14.5                                       | 235                             | 5                                 |   |  |
|                                       |   |                                  | 10P                        |                     |                 | 15.0                                       | 230                             | 15.5                                       | 265                             | 4                                 |   |  |
|                                       |   |                                  | 12P                        |                     |                 | 17.0                                       | 270                             | 17.5                                       | 310                             | 4                                 |   |  |
|                                       |   |                                  | 15P                        |                     |                 | 16.5                                       | 285                             | 17.0                                       | 320                             | 4                                 |   |  |
|                                       |   |                                  | 20P                        |                     |                 | 18.5                                       | 360                             | 19.0                                       | 405                             | 3                                 |   |  |
| 25P                                   |   |                                  | 21.5                       | 425                 | 22.0            | 485  | 3                               |  |                                 |                                   |   |  |
| 0.5mm <sup>2</sup><br><20AWG>         | 1.1<br><6/18/0.08>                                    | 1.8                              | 1P                         |                     |                 | 5.1  | 35                              | 5.6  | 45                              | 11                                | 35.5 以下<br>(Max 35.5)                     | 10 以上<br>(Min 10)                          |
|                                       |   |                                  | 2P                         |                     |                 | 8.6  | 80                              | 9.1  | 95                              | 10                                |   |  |
|                                       |   |                                  | 3P                         |                     |                 | 9.5  | 100                             | 10.0                                       | 120                             | 9                                 |   |  |
|                                       |   |                                  | 4P                         |                     |                 | 10.5                                       | 125                             | 11.0                                       | 145                             | 8                                 |   |  |
|                                       |   |                                  | 5P                         |                     |                 | 11.5                                       | 150                             | 12.0                                       | 175                             | 7                                 |   |  |
|                                       |   |                                  | 6P                         |                     |                 | 12.5                                       | 175                             | 13.0                                       | 200                             | 7                                 |   |  |
|                                       |   |                                  | 7P                         |                     |                 | 14.0                                       | 205                             | 14.5                                       | 235                             | 7                                 |   |  |
|                                       |   |                                  | 8P                         |                     |                 | 15.0                                       | 235                             | 15.5                                       | 275                             | 6                                 |   |  |
|                                       |   |                                  | 9P                         |                     |                 | 16.0                                       | 270                             | 16.5                                       | 305                             | 6                                 |   |  |
|                                       |   |                                  | 10P                        |                     |                 | 17.5                                       | 305                             | 18.0                                       | 345                             | 6                                 |   |  |
|                                       |   |                                  | 12P                        |                     |                 | 20.0                                       | 375                             | 20.5                                       | 430                             | 6                                 |   |  |
|                                       |   |                                  | 15P                        |                     |                 | 19.0                                       | 410                             | 20.0                                       | 460                             | 5                                 |   |  |
|                                       |   |                                  | 20P                        |                     |                 | 21.5                                       | 530                             | 22.0                                       | 585                             | 5                                 |   |  |
| 25P                                   |   |                                  | 24.5                       | 675                 | 25.0            | 730  | 4                               |  |                                 |                                   |   |  |

○は在庫品です。 / ○ : Stocks

■許容電流について / Allowable ampacity

- 許容電流値は周囲温度 30℃、空中 1 条敷設時の計算値を示し、保証値ではありません。  
Allowable ampacity (A) for cable is based on calculation under aerial one-cable and temperature at 30℃, not representing a guaranteed value.
- 周囲温度 30℃以上の場合、次の電流減少係数を表の値に乗じて下さい。  
Allowable ampacity cable at ambient temperature above 30℃ is to be determined by multiplying the current value by the appropriate current reduction factor in the following table1.
- 許容電流の値は、JCS0168 により算出した値であって、保証値ではありません。  
The allowable ampacity for cable are the calculated by JCS0168, but not guaranteed.

JCS0168…日本電線工業会規格 “33kV 以下電力ケーブルの許容電流計算”  
“Calculation of the current rating of power cables for rated voltage up to and including 33kV”

■表 電流減少係数 / Table1 Current reduction factors

| 周囲温度 / Ambient temperature (℃)     | 30   | 35   | 40   | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   | 90   | 95   | 100  |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 電流減少係数 / Current reduction factors | 1.00 | 0.97 | 0.93 | 0.89 | 0.86 | 0.82 | 0.77 | 0.73 | 0.68 | 0.63 | 0.58 | 0.52 | 0.45 | 0.36 | 0.26 |

KVC-43Z  
KVC-43ZSB

<P>S>E

UL AWM

NFPA70  
NFPA79

cUL/GSA

CE

CCC

GOST-R