

## Alpha Wire Industrial Series



# Alpha Wire Industrial Series

Advanced cable products for industrial applications



**F**rom the factory floor to process control, the Alpha Wire Industrial Series (AWIS) cable line is well suited to the widest range of industrial applications. We offer a variety of cables for general needs such as control wiring in both stationary and moving components. We also offer application-specific configurations for use with drives, servo systems, and factory protocols.

AWIS cables are crafted for rugged, reliable performance in your industrial equipment. They are designed to handle even your toughest applications, whether your need is continuous flexing, superior oil and chemical resistance, or excellent mechanical and electrical performance.

Choose the AWIS cable with the properties you need:

- TC-ER, PLTC, MTW, and WTTC ratings
- Oil and chemical resistance
- UV resistance
- Direct burial
- Abrasion resistance
- EMI protection
- High flex cycling

## AWIS cables give reliable performance

### Series F Continuous Flex Control Cables

Rated for up to 20 million rolling flex cycles

### Series M Control Cable

Excellent mechanical and electrical performance for stationary cable trays

### Series P Enhanced Stationary Control Cable

Superior oil and chemical resistance plus easier routing and installation

### Series SF Servo Control Cable

Maximum flexibility in servo control and power

### Series V VFD Cables

Double-shielded for superior EMI performance

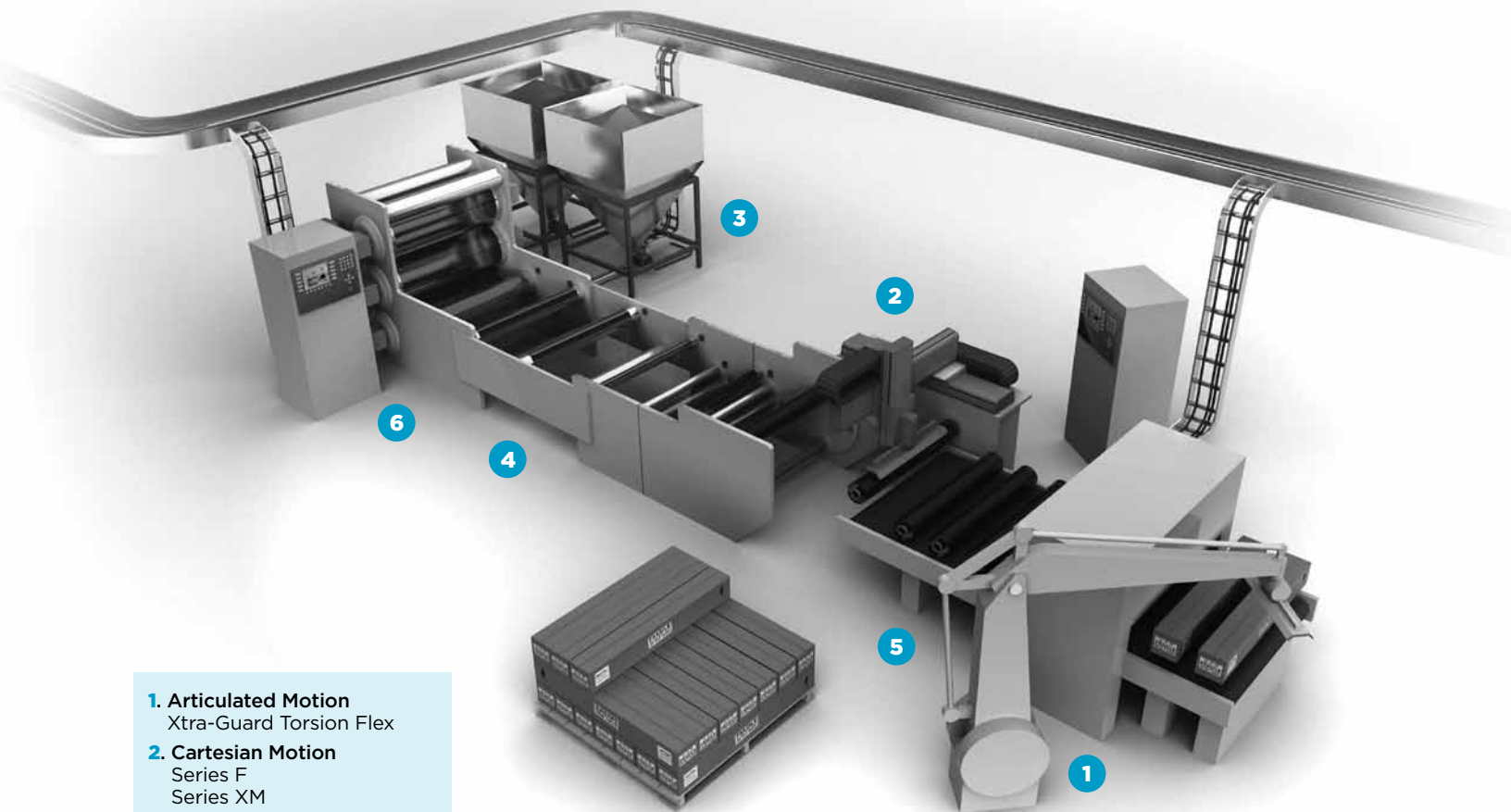
### Series XM Flexible Control Cable

Tough PVC Cable for continuous flex control applications

## Applications

- Medium-to high-flex equipment
- Factory equipment interconnects
- Robotics
- Machine tools
- Automotive assembly equipment
- Conveyor systems
- Control panels
- Transfer shuttles
- Solar farms
- Automated pick-and-place systems
- PLC controlled equipment
- Automated handling systems
- Control/monitoring of speed and position

# Reliable productivity from the factory floor to process controls



- 1. Articulated Motion**  
Xtra-Guard Torsion Flex
- 2. Cartesian Motion**  
Series F  
Series XM
- 3. Motor**  
Flexible Motor Supply
- 4. Static Control Cabling**  
Series M  
Series P
- 5. Servomotors**  
Series SF
- 6. VFD**  
Series V

**A**lpha Wire's industrial cables are well suited to the widest range of industrial applications from the factory floor to process controls to wind turbines. We offer a range of cables for general needs such as control wiring in both stationary and moving components. We also offer application-specific configurations for use with motors, drives, and servo systems.

| General Application         | Cable                                             | Advantages                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stationary                  | Series M                                          | PVC jacket<br>Oil resistant (Oil Res. I)                                                                                                                                                                 |
| Stationary/<br>Minimal Flex | Series P                                          | TPE jacket<br>Improved oil and chemical resistance (Oil Res. I/II)                                                                                                                                       |
| High Flexing                | Moderate Flexing                                  | 1 million flex cycles<br>PVC jacket                                                                                                                                                                      |
|                             | Series XM                                         | 12 million flex cycles<br>Oil resistant (Oil Res. I)                                                                                                                                                     |
|                             | Series F                                          | 20 million flex cycles<br>Improved oil and chemical resistance (Oil Res. I/II)                                                                                                                           |
|                             | Xtra-Guard Continuous Flex Data (86000 Series)    | 6 million flex cycles<br>PVC jacket                                                                                                                                                                      |
|                             | Xtra-Guard Continuous Flex Control (85000 Series) | 14 million flex cycles<br>PVC jacket                                                                                                                                                                     |
| Servomotors/<br>Drives      | Xtra-Guard Torsional Flex (87000 Series)          | 1 million flex cycles<br>TPE insulation, polyurethane jacket                                                                                                                                             |
|                             | Series SF                                         | TPE jacket<br>Enhanced flexibility for easy installation and routing<br>Improved oil and chemical resistance (Oil Res. I/II)<br>With or without brake/ground pairs                                       |
| VFD Systems                 | Series V                                          | Oil resistant (Oil Res. I)<br>Low capacitance for extended runs<br>XLPE insulation for improved dielectric properties<br>Excellent corona resistance<br>Uniform geometry for reduced common-mode current |
| Motor Supply                | Flexible Motor Supply                             | PVC jacket<br>Oil resistant (Oil Res. I)<br>Suited to light-duty flexing and VFD applications                                                                                                            |

## Superior Cable by Design

Alpha industrial cables are designed to perform better, providing consistent, reliable operation. The result is more uptime, fewer errors, and precise operation of equipment. Our cables are designed and built to uncompromising standards so you get consistency and uniformity in every cable.

## Superior Service by Design

Beyond our well-earned reputation for high-quality, premium-grade products, our commitment to service aims to make specifying and getting the cable you need both fast and easy.

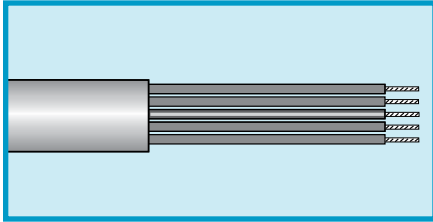
- Global availability
- Large in-stock inventory
- Flexible ordering, with small and large put-ups available
- Fast shipping—usually the same day
- 1500 distributor locations worldwide
- Engineering support
- Extensive on-line tools to select and specify cable
- Custom designs with on-line Cable Design Center™
- Fast turnarounds on custom designs



| Specific Application         | Connection               | Alpha Cable                                     |
|------------------------------|--------------------------|-------------------------------------------------|
| Stationary                   | Control panel to machine | Series M, Series P                              |
|                              | Source power             | Series M, Series P                              |
| Cartesian Robots             | Flex track               | Series XM, Series F, XG Flex 85000, Series SF   |
|                              | Tool mechanism           | XG Flex 87000 Series                            |
| Transfer Shuttles            | Source power             | Series M, Series P                              |
|                              | Flex track               | Series XM, Series F, XG Flex 85000, Series SF   |
|                              | Robot                    | XG Flex 87000 Series for end of arm tool        |
|                              | Servomotor               | Series SF                                       |
| Gantry                       | Source power             | Series M, Series P                              |
|                              | Track                    | Series XM, Series F, XG Flex 85000, Series SF   |
|                              | Robot                    | XG Flex 87000 Series for end of arm tool        |
|                              | Servomotor               | Series SF                                       |
| Pick and Place               | Source power             | XG Flex 87000 Series for end of arm tool        |
|                              | Flex track               | Series XM, Series F, XG Flex 85000 Series       |
|                              | Servomotor               | Series SF                                       |
|                              | End of arm tool          | XG Flex 87000 Series                            |
| Machine Tools                | Source power             | Series M, Series P                              |
|                              | Internal XYZ axis        | Series XM, Series F, XG Flex 85000, SF Series   |
|                              | Automated tool changer   | Series XM, Series F, XG Flex 85000/86000 Series |
|                              | Servomotor               | Series SF                                       |
| Conveying Systems            | Drive systems            | Series V VFD                                    |
|                              | Source power             | Series M, Series P, XG Flex 65000               |
|                              | Drive systems            | Series V VFD                                    |
|                              | Servomotor               | Series SF                                       |
|                              | Motor supply             | Flexible Motor Supply                           |
| Packaging/ Material Handling | Source power             | Series M, Series P                              |
|                              | Drives                   | Series V VFD                                    |
|                              | Servomotor               | Series SF                                       |
|                              | Motor power/control      | Motor Supply, Series M, Series P                |

# Series F Continuous Flex Control Cables

High-Flex Cable Track Applications  
600 V Unshielded, Multiconductor



UL TC-ER, PLTC  
UL TFFN (18 - 16 AWG)  
UL THHN (14 - 8 AWG)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- 25°C to +90°C (static)
- 5°C to +90°C (dynamic)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
- 1 green/yellow green conductor
- 1 white-striped neutral
- (12 conductors or greater)

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black oil-resistant thermoplastic elastomer jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I/II
- 10x bend radius
- Over 20 million rolling flex cycles
- Tic-tock and twist test per MIL-C-13777G
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible, cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage

| 18 AWG (0.83 mm²)                                               |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 41/34 (41 x 0.16 mm)                                 |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F18003KW                                                        | F18003LW    | F18003RW   | 3          | 0.308            | 7.82  | 0.050            | 1.27 |
| F18004KW                                                        | F18004LW    | F18004RW   | 4          | 0.333            | 8.46  | 0.050            | 1.27 |
| F18005KW                                                        | F18005LW    | F18005RW   | 5          | 0.360            | 9.14  | 0.050            | 1.27 |
| F18007KW                                                        | F18007LW    | F18007RW   | 7          | 0.418            | 10.62 | 0.050            | 1.27 |
| F18012KW                                                        | F18012LW    | F18012RW   | 12         | 0.515            | 13.08 | 0.065            | 1.65 |
| F18017KW                                                        | F18017LW    | F18017RW   | 17         | 0.597            | 15.16 | 0.065            | 1.65 |
| F18022KW                                                        | F18022LW    | F18022RW   | 22         | 0.656            | 16.66 | 0.065            | 1.65 |
| F18025KW                                                        | F18025LW    | F18025RW   | 25         | 0.717            | 18.21 | 0.065            | 1.65 |
| F18034KW                                                        | F18034LW    | F18034RW   | 34         | 0.775            | 19.69 | 0.065            | 1.65 |
| F18042KW                                                        | F18042LW    | F18042RW   | 42         | 0.874            | 22.20 | 0.085            | 2.16 |
| F18049KW                                                        | F18049LW    | F18049RW   | 49         | 0.965            | 24.51 | 0.085            | 2.16 |
| F18065KW                                                        | F18065LW    | F18065RW   | 65         | 1.052            | 26.72 | 0.085            | 2.16 |

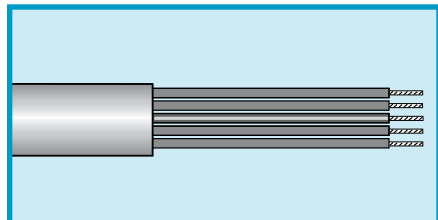
| 16 AWG (1.31 mm²)                                               |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 65/34 (65 x 0.16 mm)                                 |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F16003KW                                                        | F16003LW    | F16003RW   | 3          | 0.334            | 8.48  | 0.050            | 1.27 |
| F16004KW                                                        | F16004LW    | F16004RW   | 4          | 0.362            | 9.19  | 0.050            | 1.27 |
| F16005KW                                                        | F16005LW    | F16005RW   | 5          | 0.393            | 9.98  | 0.050            | 1.27 |
| F16007KW                                                        | F16007LW    | F16007RW   | 7          | 0.489            | 12.42 | 0.065            | 1.65 |
| F16012KW                                                        | F16012LW    | F16012RW   | 12         | 0.565            | 14.35 | 0.065            | 1.65 |
| F16017KW                                                        | F16017LW    | F16017RW   | 17         | 0.657            | 16.69 | 0.065            | 1.65 |
| F16019KW                                                        | F16019LW    | F16019RW   | 19         | 0.691            | 17.55 | 0.065            | 1.65 |
| F16022KW                                                        | F16022LW    | F16022RW   | 22         | 0.724            | 18.39 | 0.065            | 1.65 |
| F16025KW                                                        | F16025LW    | F16025RW   | 25         | 0.793            | 20.14 | 0.065            | 1.65 |
| F16033KW                                                        | F16033LW    | F16033RW   | 33         | 0.899            | 22.83 | 0.085            | 2.16 |
| F16042KW                                                        | F16042LW    | F16042RW   | 42         | 0.966            | 24.54 | 0.085            | 2.16 |
| F16049KW                                                        | F16049LW    | F16049RW   | 49         | 1.069            | 27.15 | 0.085            | 2.16 |
| F16065KW                                                        | F16065LW    | F16065RW   | 65         | 1.168            | 29.67 | 0.085            | 2.16 |





# Series F Continuous Flex Control Cables

High-Flex Cable Track Applications  
600 V Unshielded, Multiconductor



UL TC-ER, PLTC  
UL TFFN (18 - 16 AWG)  
UL THHN (14 - 8 AWG)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- 25°C to +90°C (static)
- 5°C to +90°C (dynamic)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
- 1 green/yellow green conductor
- 1 white-striped neutral
- (12 conductors or greater, except 14 AWG)

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black oil-resistant thermoplastic elastomer jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I/II
- 10x bend radius
- Over 20 million rolling flex cycles
- Tic-tock and twist test per MIL-C-13777G
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible, cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

| 14 AWG (2.11 mm²)                                               |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 105/34 (105 x 0.16 mm)                               |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F14004KW                                                        | F14004LW    | F14004RW   | 4          | 0.398            | 10.11 | 0.050            | 1.27 |
| F14005KW                                                        | F14005LW    | F14005RW   | 5          | 0.434            | 11.02 | 0.050            | 1.27 |
| F14007KW                                                        | F14007LW    | F14007RW   | 7          | 0.539            | 13.69 | 0.065            | 1.65 |
| F14012KW                                                        | F14012LW    | F14012RW   | 12         | 0.628            | 15.95 | 0.065            | 1.65 |

| 12 AWG (3.38 mm²)                                               |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 168/34 (168 x 0.16 mm)                               |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F12004KW                                                        | F12004LW    | F12004RW   | 4          | 0.501            | 12.73 | 0.065            | 1.65 |
| F12005KW                                                        | F12005LW    | F12005RW   | 5          | 0.545            | 13.84 | 0.065            | 1.65 |
| F12007KW                                                        | F12007LW    | F12007RW   | 7          | 0.640            | 16.26 | 0.065            | 1.65 |

| 10 AWG (5.32 mm²)                                               |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 105/30 (105 x 0.25 mm)                               |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F10004KW                                                        | F10004LW    | F10004RW   | 4          | 0.565            | 14.35 | 0.065            | 1.65 |
| F10005KW                                                        | F10005LW    | F10005RW   | 5          | 0.618            | 15.70 | 0.065            | 1.65 |
| F10007KW                                                        | F10007LW    | F10007RW   | 7          | 0.729            | 18.52 | 0.065            | 1.65 |

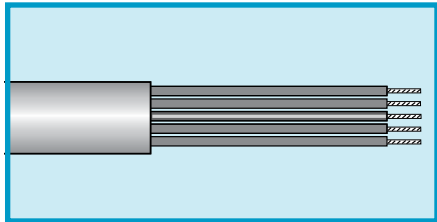
| 8 AWG (8.51 mm²)                                                |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 168/30 (168 x 0.25 mm)                               |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.032 (0.81 mm) PVC/0.006 (0.15 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| F08004KW                                                        | F08004LW    | F08004RW   | 4          | 0.740            | 18.80 | 0.065            | 1.65 |

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage



# Series M Control Cable

Stationary or Minimal Flex Applications  
600 V Unshielded, Multiconductor



UL TC-ER  
UL MTW  
UL WTTC (1000 V)  
UL PLTC (300 V)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- 25°C to +90°C (static)
- 5°C to +90°C (dynamic)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
- 1 green/yellow green conductor
- 1 white-striped neutral
- (12 conductors or greater)

## Materials

- Finely stranded bare copper conductors
- PVC/nylon insulation
- Slate PVC jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I
- UL Direct Burial
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code
- 90°C Dry/75°C Wet

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-221: General-purpose cross-linked polyolefin
- FIT-321: Medium-wall, adhesive-lined cross-linked polyolefin

| 18 AWG (0.96 mm <sup>2</sup> )                                  |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 19/30 (19 x 0.25 mm)                                 |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M18103KW                                                        | M18103LW    | M18103RW   | 3          | 0.301            | 7.65  | 0.050            | 1.27 |
| M18104KW                                                        | M18104LW    | M18104RW   | 4          | 0.326            | 8.28  | 0.050            | 1.27 |
| M18105KW                                                        | M18105LW    | M18105RW   | 5          | 0.353            | 8.97  | 0.050            | 1.27 |
| M18107KW                                                        | M18107LW    | M18107RW   | 7          | 0.381            | 9.68  | 0.050            | 1.27 |
| M18112KW                                                        | M18112LW    | M18112RW   | 12         | 0.515            | 13.08 | 0.065            | 1.65 |
| M18117KW                                                        | M18117LW    | M18117RW   | 17         | 0.594            | 15.09 | 0.065            | 1.65 |
| M18122KW                                                        | M18122LW    | M18122RW   | 22         | 0.651            | 16.54 | 0.065            | 1.65 |
| M18125KW                                                        | M18125LW    | M18125RW   | 25         | 0.699            | 17.75 | 0.065            | 1.65 |
| M18134KW                                                        | M18134LW    | M18134RW   | 34         | 0.777            | 19.74 | 0.065            | 1.65 |
| M18142KW                                                        | M18142LW    | M18142RW   | 42         | 0.874            | 22.20 | 0.085            | 2.15 |
| M18149KW                                                        | M18149LW    | M18149RW   | 49         | 0.923            | 23.44 | 0.085            | 2.15 |
| M18165KW                                                        | M18165LW    | M18165RW   | 65         | 1.029            | 26.14 | 0.085            | 2.15 |

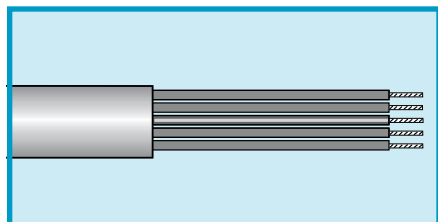
| 16 AWG (1.32 mm <sup>2</sup> )                                  |             |            |            |                  |       |                  |      |
|-----------------------------------------------------------------|-------------|------------|------------|------------------|-------|------------------|------|
| Stranding: 26/30 (26 x 0.25 mm)                                 |             |            |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon |             |            |            |                  |       |                  |      |
| Part No.                                                        |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Black Insul.                                                    | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M16103KW                                                        | M16103LW    | M16103RW   | 3          | 0.323            | 8.20  | 0.050            | 1.27 |
| M16104KW                                                        | M16104LW    | M16104RW   | 4          | 0.350            | 8.89  | 0.050            | 1.27 |
| M16105KW                                                        | M16105LW    | M16105RW   | 5          | 0.380            | 9.65  | 0.050            | 1.27 |
| M16107KW                                                        | M16107LW    | M16107RW   | 7          | 0.421            | 10.69 | 0.055            | 1.39 |
| M16112KW                                                        | M16112LW    | M16112RW   | 12         | 0.557            | 14.14 | 0.065            | 1.65 |
| M16117KW                                                        | M16117LW    | M16117RW   | 17         | 0.644            | 16.35 | 0.065            | 1.65 |
| M16119KW                                                        | M16119LW    | M16119RW   | 19         | 0.644            | 16.35 | 0.065            | 1.65 |
| M16122KW                                                        | M16122LW    | M16122RW   | 22         | 0.707            | 17.95 | 0.065            | 1.65 |
| M16125KW                                                        | M16125LW    | M16125RW   | 25         | 0.761            | 19.32 | 0.065            | 1.65 |
| M16133KW                                                        | M16133LW    | M16133RW   | 33         | 0.857            | 21.76 | 0.085            | 2.15 |
| M16142KW                                                        | M16142LW    | M16142RW   | 42         | 0.950            | 24.13 | 0.085            | 2.15 |
| M16149KW                                                        | M16149LW    | M16149RW   | 49         | 1.005            | 25.52 | 0.085            | 2.15 |
| M16165KW                                                        | M16165LW    | M16165RW   | 65         | 1.122            | 28.49 | 0.085            | 2.15 |

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage



# Series M Control Cable

Stationary or Minimal Flex Applications  
600 V Unshielded, Multiconductor



UL TC-ER  
UL MTW  
UL WTTC (1000 V)  
UL PLTC (300 V)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- 25°C to +90°C (static)
- 5°C to +90°C (dynamic)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
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- 1 white-striped neutral
- (12 conductors or greater, except 14 AWG)

## Materials

- Finely stranded bare copper conductors
- PVC/nylon insulation
- Slate PVC jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I
- UL Direct Burial
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code
- 90°C Dry/75°C Wet

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-221: General-purpose cross-linked polyolefin
- FIT-321: Medium-wall, adhesive-lined cross-linked polyolefin

### 14 AWG (2.09 mm²)

Stranding: 41/30 (41 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M14104KW     | M14104LW    | M14104RW   | 4          | 0.384            | 9.75  | 0.050            | 1.27 |
| M14105KW     | M14105LW    | M14105RW   | 5          | 0.428            | 10.87 | 0.055            | 1.39 |
| M14107KW     | M14107LW    | M14107RW   | 7          | 0.483            | 12.26 | 0.065            | 1.65 |
| M14112KW     | M14112LW    | M14112RW   | 12         | 0.615            | 15.62 | 0.065            | 1.65 |
| M14125KW     | M14125LW    | M14125RW   | 25         | 0.887            | 22.52 | 0.085            | 2.15 |

### 12 AWG (3.31 mm²)

Stranding: 65/30 (65 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.10 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M12104KW     | M12104LW    | M12104RW   | 4          | 0.44             | 11.17 | 0.055            | 1.39 |
| M12105KW     | M12105LW    | M12105RW   | 5          | 0.499            | 12.67 | 0.065            | 1.65 |
| M12107KW     | M12107LW    | M12107RW   | 7          | 0.540            | 13.71 | 0.065            | 1.65 |

### 10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)  
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.10 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M10104KW     | M10104LW    | M10104RW   | 4          | 0.549            | 13.94 | 0.065            | 1.65 |
| M10105KW     | M10105LW    | M10105RW   | 5          | 0.600            | 15.24 | 0.065            | 1.65 |
| M10107KW     | M10107LW    | M10107RW   | 7          | 0.652            | 16.56 | 0.065            | 1.65 |

### 8 AWG (8.52 mm²)

Stranding: 168/30 (168 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm) PVC/0.006 (0.15 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| M08104KW     | M08104LW    | M08104RW   | 4          | 0.724            | 18.38 | 0.065            | 1.65 |
| M08105KW     | M08105LW    | M08105RW   | 5          | 0.795            | 20.19 | 0.065            | 1.65 |

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage

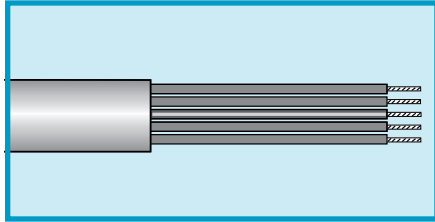




# Series P Enhanced Stationary Control Cable

Stationary or Minimal Flex Applications

600 V Unshielded, Multiconductor



UL TC-ER, PLTC  
UL TFFN (18 – 16 AWG)  
UL THHN (14 – 8 AWG)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- -25°C to +90°C

## Voltage Rating

- 600 V (TC-ER)
- 300 V (PLTC)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
- 1 green/yellow green conductor
- 1 white-striped neutral
- (12 conductors or greater)

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Oil-resistant thermoplastic elastomer jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I/II
- 10x bend radius, static and dynamic
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical/temperature-resistant cross-linked fluoroelastomer

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage

### 18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP18103KW    | MP18103LW   | MP18103RW  | 3          | 0.313            | 7.95  | 0.050            | 1.27 |
| MP18104KW    | MP18104LW   | MP18104RW  | 4          | 0.338            | 8.58  | 0.050            | 1.27 |
| MP18105KW    | MP18105LW   | MP18105RW  | 5          | 0.365            | 9.27  | 0.050            | 1.27 |
| MP18107KW    | MP18107LW   | MP18107RW  | 7          | 0.393            | 9.98  | 0.050            | 1.27 |
| MP18112KW    | MP18112LW   | MP18112RW  | 12         | 0.527            | 13.39 | 0.065            | 1.65 |
| MP18117KW    | MP18117LW   | MP18117RW  | 17         | 0.606            | 15.39 | 0.065            | 1.65 |
| MP18122KW    | MP18122LW   | MP18122RW  | 22         | 0.663            | 16.84 | 0.065            | 1.65 |
| MP18125KW    | MP18125LW   | MP18125RW  | 25         | 0.711            | 18.06 | 0.065            | 1.65 |
| MP18134KW    | MP18134LW   | MP18134RW  | 34         | 0.789            | 20.04 | 0.065            | 1.65 |
| MP18142KW    | MP18142LW   | MP18142RW  | 42         | 0.886            | 22.50 | 0.085            | 2.16 |
| MP18149KW    | MP18149LW   | MP18149RW  | 49         | 0.935            | 23.75 | 0.085            | 2.16 |
| MP18165KW    | MP18165LW   | MP18165RW  | 65         | 1.041            | 26.44 | 0.085            | 2.16 |

### 16 AWG (1.32 mm²)

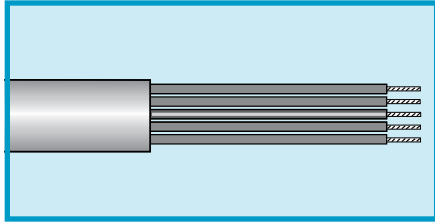
Stranding: 26/30 (26 x 0.25 mm)  
Insulation thickness: 0.016 (0.41mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP16103KW    | MP16103LW   | MP16103RW  | 3          | 0.335            | 8.51  | 0.050            | 1.27 |
| MP16104KW    | MP16104LW   | MP16104RW  | 4          | 0.362            | 9.19  | 0.050            | 1.27 |
| MP16105KW    | MP16105LW   | MP16105RW  | 5          | 0.392            | 9.96  | 0.050            | 1.27 |
| MP16107KW    | MP16107LW   | MP16107RW  | 7          | 0.423            | 10.74 | 0.050            | 1.27 |
| MP16112KW    | MP16112LW   | MP16112RW  | 12         | 0.569            | 14.45 | 0.065            | 1.65 |
| MP16117KW    | MP16117LW   | MP16117RW  | 17         | 0.656            | 16.66 | 0.065            | 1.65 |
| MP16122KW    | MP16122LW   | MP16122RW  | 22         | 0.719            | 18.26 | 0.065            | 1.65 |
| MP16125KW    | MP16125LW   | MP16125RW  | 25         | 0.773            | 19.63 | 0.065            | 1.65 |
| MP16133KW    | MP16133LW   | MP16133RW  | 33         | 0.869            | 22.07 | 0.085            | 2.16 |
| MP16142KW    | MP16142LW   | MP16142RW  | 42         | 0.962            | 24.43 | 0.085            | 2.16 |
| MP16149KW    | MP16149LW   | MP16149RW  | 49         | 1.017            | 25.83 | 0.085            | 2.16 |
| MP16165KW    | MP16165LW   | MP16165RW  | 65         | 1.134            | 28.80 | 0.085            | 2.16 |



# Series P Enhanced Stationary Control Cable

Stationary or Minimal Flex Applications  
600 V Unshielded, Multiconductor



UL TC-ER, PLTC  
UL TFFN (18 - 16 AWG)  
UL THHN (14 - 8 AWG)  
CSA AWM I/II A/B FT4  
CE LVD 73/23/EEC Amend.  
93/68/EEC

## Operating Temperature

- -25°C to +90°C

## Voltage Rating

- 600 V (TC-ER)
- 300 V (PLTC)

## Conductor Color Coding

- Red, blue, or black insulation\*, numbered
- 1 green/yellow green conductor
- 1 white-striped neutral
- (12 conductors or greater)

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Oil-resistant thermoplastic elastomer jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I/II
- 10x bend radius, static and dynamic
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical/temperature-resistant cross-linked fluoroelastomer

\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage

### 14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP14104KW    | MP14104LW   | MP14104RW  | 4          | 0.396            | 10.06 | 0.050            | 1.27 |
| MP14105KW    | MP14105LW   | MP14105RW  | 5          | 0.430            | 10.92 | 0.050            | 1.27 |
| MP14107KW    | MP14107LW   | MP14107RW  | 7          | 0.495            | 12.57 | 0.065            | 1.65 |
| MP14112KW    | MP14112LW   | MP14112RW  | 12         | 0.627            | 15.93 | 0.065            | 1.65 |
| MP14125KW    | MP14125LW   | MP14125RW  | 25         | 0.899            | 22.83 | 0.085            | 2.16 |

### 12 AWG (3.31 mm²)

Stranding: 65/30 (65 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP12104KW    | MP12104LW   | MP12104RW  | 4          | 0.472            | 11.99 | 0.065            | 1.65 |
| MP12105KW    | MP12105LW   | MP12105RW  | 5          | 0.511            | 12.98 | 0.065            | 1.65 |
| MP12107KW    | MP12107LW   | MP12107RW  | 7          | 0.552            | 14.02 | 0.065            | 1.65 |

### 10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)  
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP10104KW    | MP10104LW   | MP10104RW  | 4          | 0.561            | 14.25 | 0.065            | 1.65 |
| MP10105KW    | MP10105LW   | MP10105RW  | 5          | 0.612            | 15.54 | 0.065            | 1.65 |
| MP10107KW    | MP10107LW   | MP10107RW  | 7          | 0.664            | 16.87 | 0.065            | 1.65 |

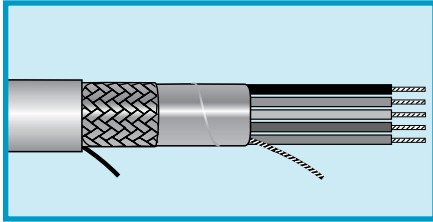
### 8 AWG (8.52 mm²)

Stranding: 168/30 (105 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm) PVC/0.005 (0.010 mm) nylon

| Part No.     |             |            | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------------|------------|------------|------------------|-------|------------------|------|
| Black Insul. | Blue Insul. | Red Insul. |            | Inch             | mm    | Inch             | mm   |
| MP08104KW    | MP08104LW   | MP08104RW  | 4          | 0.736            | 18.69 | 0.065            | 1.65 |
| MP08105KW    | MP08105LW   | MP08105RW  | 5          | 0.807            | 20.50 | 0.065            | 1.65 |

# Series SF Flexible Servo Cable

600/1000 V, PVC/Nylon, TPE



**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**CSA AWM I/II A/B FT4**

## Operating Temperature

- -25°C to +90°C (static)
- -5°C to +90°C (dynamic)

## Conductor Color Coding

- Chart KX (page 534) for multiconductor
- Chart A (page 528) for pairs

## Materials

- Stranded tinned copper conductors
- PVC/nylon insulation
- Foil + braid shielding  
Aluminum/polyester foil  
Tinned copper braid,  
85% coverage
- Orange thermoplastic elastomer jacket

## Features

- UL Sunlight Resistant
- UL Oil Res. I/II
- 10x bend radius
- Two configurations
  1. Power cable
  2. Composite cable for power and control
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical/temperature-resistant cross-linked fluoroelastomer

### Flexible Power Servo Cable

4 conductors for power/ground

| Part No.  | Conductors | Wire Size |                 | Stranding |            | Nominal Diameter |       | Jacket Thickness |      |
|-----------|------------|-----------|-----------------|-----------|------------|------------------|-------|------------------|------|
|           |            | AWG       | mm <sup>2</sup> | AWG       | mm         | Inch             | mm    | Inch             | mm   |
| SF61118CY | 4          | 18        | 0.96            | 19/30     | 19 x 0.25  | 0.382            | 9.70  | 0.055            | 1.40 |
| SF61116CY | 4          | 16        | 1.32            | 26/30     | 26 x 0.25  | 0.406            | 10.31 | 0.055            | 1.40 |
| SF61114CY | 4          | 14        | 2.09            | 41/30     | 41 x 0.25  | 0.440            | 11.18 | 0.055            | 1.40 |
| SF61112CY | 4          | 12        | 3.31            | 65/30     | 65 x 0.25  | 0.506            | 12.85 | 0.065            | 1.65 |
| SF61110CY | 4          | 10        | 5.32            | 105/30    | 105 x 0.25 | 0.603            | 15.32 | 0.065            | 1.65 |
| SF61108CY | 4          | 8         | 8.50            | 168/30    | 168 x 0.25 | 0.785            | 19.94 | 0.065            | 1.65 |

### Flexible Composite Servo Cable

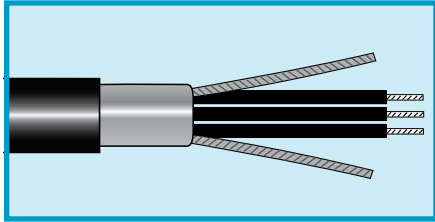
4 conductors for power/ground +2 individually shielded pairs for brake or temperature control

| Part No.  | Conductors | Wire Size       |                 | Stranding       |                         | Nominal Diameter |       | Jacket Thickness |      |
|-----------|------------|-----------------|-----------------|-----------------|-------------------------|------------------|-------|------------------|------|
|           |            | AWG             | mm <sup>2</sup> | AWG             | mm                      | Inch             | mm    | Inch             | mm   |
| SF61220CY | 4 +2 pairs | 16 pwr<br>18 pr | 1.32<br>0.96    | 26/30<br>19/30  | 26 x 0.25<br>19 x 0.25  | 0.590            | 14.99 | 0.065            | 1.65 |
| SF61221CY | 4 +2 pairs | 14 pwr<br>18 pr | 2.09<br>0.96    | 41/30<br>19/30  | 41 x 0.25<br>19 x 0.25  | 0.618            | 15.70 | 0.065            | 1.65 |
| SF61222CY | 4 +2 pairs | 12 pwr<br>16 pr | 3.31<br>1.32    | 65/30<br>26/30  | 65 x 0.25<br>26 x 0.25  | 0.674            | 17.12 | 0.065            | 1.65 |
| SF61223CY | 4 +2 pairs | 10 pwr<br>16 pr | 5.37<br>1.32    | 105/30<br>26/30 | 105 x 0.25<br>26 x 0.25 | 0.757            | 19.23 | 0.065            | 1.65 |
| SF61224CY | 4 +2 pairs | 8 pwr<br>16 pr  | 8.50<br>1.32    | 168/30<br>26/30 | 168 x 0.25<br>26 x 0.25 | 0.943            | 23.95 | 0.085            | 2.16 |



## Series V VFD Control Cables

Enhanced Design for Superior Performance in Variable-Frequency Drives  
600/1000 V Shielded



Series V cables for variable-frequency drives (VFD) set the standard in high-performance and reliable connectivity. Their specially formulated cross-linked polyethylene insulation provides superior corona resistance, low capacitance for longer runs, and excellent low-temperature properties.

A symmetrical design places the ground wires in the interstices of the conductors for uniform conductor-to-ground capacitance and impedance.

Smaller gauge cable feature a combination foil/braid shield to offer exceptional EMI/RFI protection in noisy environments. On larger gauge cable, a double copper tape is used to provide the same noise-free operation.

This uniformity reduces the probability of motor damage from common-mode current.

Alpha Series V VFD cables are compatible with drives from all major manufacturers.

**UL RHW-2 (16 – 2 AWG)**  
**UL XHHW-2**  
**UL TC-ER**  
**UL 1000V Flexible Motor Supply Cable**  
**CSA AWM I/II A/B FT4**  
**CE LVD 73/23/EEC**  
**Amendment 93/68/EEC**  
**Pennsylvania MHSA**

### Operating Temperature

- -40°C to +90°C

### Conductor Color Coding

- Black, numbered

### Materials

- Stranded tinned copper conductors
- Stranded tinned copper ground wires
- Cross-linked polyethylene insulation

- Shielding  
16 – 4 AWG:  
Aluminum/polyester/aluminum foil and tinned copper braid with 85% coverage  
2 – 4/0 AWG:  
Double-layer copper tape
- Black premium PVC jacket

### Voltage

- 600 V (UL TC-ER)
- 1000 V (UL Motor Supply)

### Features

- UL Direct Burial
- UL Sunlight Resistant
- 10x bend radius
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

### Availability

Bulk, made to order

### FIT® Tubing Recommendations

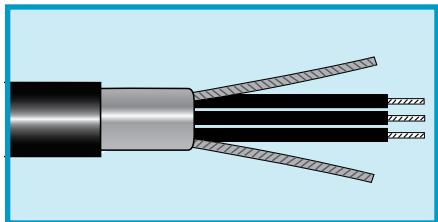
- FIT-221: General-purpose cross-linked polyolefin
- FIT-321V: Low-shrink-temperature, flame-retardant cross-linked polyolefin

| Three-Conductor VFD Cables |           |                 |           |            |            |                      |      |                  |      |                  |       |
|----------------------------|-----------|-----------------|-----------|------------|------------|----------------------|------|------------------|------|------------------|-------|
| Part No.                   | Wire Size |                 | Stranding |            | Shielding  | Insulation Thickness |      | Jacket Thickness |      | Nominal Diameter |       |
|                            | AWG       | mm <sup>2</sup> | AWG       | mm         |            | Inch                 | mm   | Inch             | mm   | Inch             | mm    |
| <b>V16316</b>              | 16        | 1.32            | 26/30     | 26 x 0.25  | Foil/Braid | 0.046                | 1.17 | 0.050            | 1.27 | 0.468            | 11.89 |
| <b>V16314</b>              | 14        | 2.09            | 41/30     | 41 x 0.25  | Foil/Braid | 0.046                | 1.17 | 0.065            | 1.65 | 0.538            | 13.67 |
| <b>V16312</b>              | 12        | 3.31            | 65/30     | 65 x 0.25  | Foil/Braid | 0.046                | 1.17 | 0.065            | 1.65 | 0.578            | 14.68 |
| <b>V16310</b>              | 10        | 5.37            | 105/30    | 105 x 0.25 | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.642            | 16.31 |
| <b>V16308</b>              | 8         | 8.53            | 133/29    | 133 x 0.28 | Foil/Braid | 0.061                | 1.55 | 0.065            | 1.65 | 0.798            | 20.27 |
| <b>V16306</b>              | 6         | 13.57           | 133/27    | 133 x 0.36 | Foil/Braid | 0.061                | 1.55 | 0.085            | 2.15 | 0.924            | 23.47 |
| <b>V16304</b>              | 4         | 21.58           | 133/25    | 133 x 0.45 | Foil/Braid | 0.061                | 1.55 | 0.085            | 2.15 | 1.050            | 26.67 |
| <b>V16302</b>              | 2         | 34.32           | 133/23    | 133 x 0.57 | Tape       | 0.061                | 1.55 | 0.085            | 2.15 | 1.157            | 29.39 |
| <b>V16001</b>              | 1         | 43.28           | 133/22    | 133 x 0.64 | Tape       | 0.056                | 1.42 | 0.085            | 2.15 | 1.197            | 30.48 |
| <b>V16000</b>              | 1/0       | 54.58           | 133/21    | 133 x 0.72 | Tape       | 0.056                | 1.42 | 0.085            | 2.15 | 1.294            | 32.77 |
| <b>V16020</b>              | 2/0       | 68.85           | 133/20    | 133 x 0.81 | Tape       | 0.056                | 1.42 | 0.085            | 2.15 | 1.399            | 35.56 |
| <b>V16030</b>              | 3/0       | 86.9            | 133/19    | 133 x 0.91 | Tape       | 0.056                | 1.42 | 0.085            | 2.15 | 1.517            | 38.53 |
| <b>V16040</b>              | 4/0       | 109             | 133/18    | 133 x 1.02 | Tape       | 0.056                | 1.42 | 0.085            | 2.15 | 1.653            | 41.98 |



## Series V VFD Control Cables

Enhanced Design for Superior Performance in Variable-Frequency Drives  
600/1000 V Shielded



Series V cables for variable-frequency drives (VFD) set the standard in high-performance and reliable connectivity. Their specially formulated cross-linked polyethylene insulation provides superior corona resistance, low capacitance for longer runs, and excellent low-temperature properties.

A symmetrical design places the ground wires in the interstices of the conductors for uniform conductor-to-ground capacitance and impedance.

Smaller gauge cable feature a combination foil/braid shield to offer exceptional EMI/RFI protection in noisy environments. On larger gauge cable, a double copper tape is used to provide the same noise-free operation.

This uniformity reduces the probability of motor damage from common-mode current.

Alpha Series V VFD cables are compatible with drives from all major manufacturers.

**UL RHW-2 (16 - 2 AWG)**  
**UL XHHW-2**  
**UL TC-ER**  
**UL 1000V Flexible Motor Supply Cable**  
**CSA AWM I/II A/B FT4**  
**CE LVD 73/23/EEC**  
**Amendment 93/68/EEC**  
**Pennsylvania MHSA**

### Operating Temperature

- -40°C to +90°C

### Conductor Color Coding

- Black, numbered

### Materials

- Stranded tinned copper conductors
- Stranded tinned copper ground wires
- Cross-linked polyethylene insulation

- Shielding  
16 - 4 AWG:  
Aluminum/polyester/aluminum foil and tinned copper braid with 85% coverage  
2 - 4/0 AWG:  
Double-layer copper tape
- Black premium PVC jacket

### Voltage

- 600 V (UL TC-ER)
- 1000 V (UL Motor Supply)

### Features

- UL Direct Burial
- UL Sunlight Resistant
- 10x bend radius
- Suitable for use in Class I, Division 2 locations per Article 501 of the National Electric Code

### Availability

Bulk, made to order

### FIT® Tubing Recommendations

- FIT-221: General-purpose cross-linked polyolefin
- FIT-321V: Low-shrink-temperature, flame-retardant cross-linked polyolefin

Four-Conductor VFD Cable

| Part No.      | Wire Size |                 | Stranding |            | Shielding  | Insulation Thickness |      | Jacket Thickness |      | Nominal Diameter |       |
|---------------|-----------|-----------------|-----------|------------|------------|----------------------|------|------------------|------|------------------|-------|
|               | AWG       | mm <sup>2</sup> | AWG       | mm         |            | Inch                 | mm   | Inch             | mm   | Inch             | mm    |
| <b>V16016</b> | 16        | 1.32            | 26/30     | 26 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.547            | 13.89 |
| <b>V16014</b> | 14        | 2.09            | 41/30     | 41 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.584            | 14.83 |
| <b>V16012</b> | 12        | 3.31            | 65/30     | 65 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.633            | 16.08 |
| <b>V16010</b> | 10        | 5.37            | 105/30    | 105 x 0.25 | Foil/Braid | 0.047                | 1.19 | 0.085            | 2.15 | 0.746            | 18.95 |
| <b>V16008</b> | 8         | 8.53            | 133/29    | 133 x 0.28 | Foil/Braid | 0.061                | 1.55 | 0.086            | 2.15 | 0.920            | 23.37 |
| <b>V16006</b> | 6         | 13.57           | 133/27    | 133 x 0.36 | Foil/Braid | 0.061                | 1.55 | 0.086            | 2.15 | 1.017            | 25.83 |
| <b>V16004</b> | 4         | 21.58           | 133/25    | 133 x 0.45 | Foil/Braid | 0.061                | 1.55 | 0.086            | 2.15 | 1.157            | 29.39 |
| <b>V16002</b> | 2         | 34.32           | 133/23    | 133 x 0.57 | Foil/Braid | 0.061                | 1.55 | 0.088            | 2.15 | 1.308            | 33.22 |

Four-Conductor VFD Cable with 14 AWG (2.09) Brake Pair

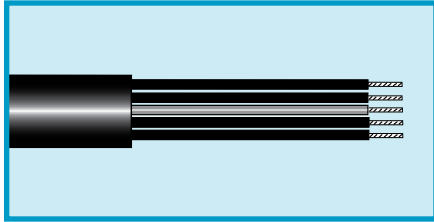
| Part No.      | Wire Size |                 | Stranding |            | Shielding  | Insulation Thickness |      | Jacket Thickness |      | Nominal Diameter |       |
|---------------|-----------|-----------------|-----------|------------|------------|----------------------|------|------------------|------|------------------|-------|
|               | AWG       | mm <sup>2</sup> | AWG       | mm         |            | Inch                 | mm   | Inch             | mm   | Inch             | mm    |
| <b>V16116</b> | 16        | 1.32            | 26/30     | 26 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.717            | 18.21 |
| <b>V16114</b> | 14        | 2.09            | 41/30     | 41 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.743            | 18.87 |
| <b>V16112</b> | 12        | 3.31            | 65/30     | 65 x 0.25  | Foil/Braid | 0.047                | 1.19 | 0.065            | 1.65 | 0.785            | 19.94 |
| <b>V16110</b> | 10        | 5.37            | 105/30    | 105 x 0.25 | Foil/Braid | 0.047                | 1.19 | 0.085            | 2.15 | 0.875            | 22.23 |
| <b>V16108</b> | 8         | 8.53            | 133/29    | 133 x 0.28 | Foil/Braid | 0.061                | 1.55 | 0.085            | 2.15 | 1.032            | 26.21 |





# Series XM Flexible Control Cable

600/1000 V Unshielded, PVC/Nylon, PVC



Series XM Flexible Control Cable is the ideal choice for medium-to-high-flex applications. Featuring a premium-grade PVC jacket, Series XM offers a durable, oil-resistant construction that prevents contamination from hazardous fluids and protects against abrasion. Plus, its optimum flexibility and performance allows it to support a variety of industrial applications.

**UL TC-ER (600 V)**  
**UL WTTT (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE compliant**

## Operating Temperature

-30°C to +90°C (static)  
 -5°C to +90°C (dynamic)

## Conductor Color Coding

- Chart KW, RW, LW (pages 533-535)
- Black, blue, or red\* numbered conductors with one green/yellow ground conductor

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

## Features

- UL Oil Res. I
- UL Sunlight Resistant
- Suitable for NFPA 79 application

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

\*Red insulation: AC circuits operating at less than line voltage  
 Blue insulation: DC circuits operating at less than line voltage  
 Black insulation: AC circuits operating at less than line voltage

### 18 AWG (0.83 mm²)

Stranding: 41/34 (41 x 0.16 mm)  
 Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| Part No. |         |         | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------|---------|---------|------------|------------------|-------|------------------|------|
| Red      | Blue    | Black   |            | Inch             | mm    | Inch             | mm   |
| XM1803R  | XM1803L | XM1803K | 3          | 0.308            | 7.82  | 0.050            | 1.27 |
| XM1804R  | XM1804L | XM1804K | 4          | 0.333            | 8.46  | 0.050            | 1.27 |
| XM1805R  | XM1805L | XM1805K | 5          | 0.360            | 9.14  | 0.050            | 1.27 |
| XM1807R  | XM1807L | XM1807K | 7          | 0.418            | 10.62 | 0.050            | 1.27 |
| XM1812R  | XM1812L | XM1812K | 12         | 0.485            | 12.32 | 0.050            | 1.27 |
| XM1817R  | XM1817L | XM1817K | 17         | 0.597            | 15.16 | 0.065            | 1.65 |
| XM1822R  | XM1822L | XM1822K | 22         | 0.656            | 16.66 | 0.065            | 1.65 |
| XM1825R  | XM1825L | XM1825K | 25         | 0.717            | 18.21 | 0.065            | 1.65 |
| XM1834R  | XM1834L | XM1834K | 34         | 0.775            | 19.69 | 0.065            | 1.65 |
| XM1842R  | XM1842L | XM1842K | 42         | 0.874            | 22.20 | 0.085            | 2.16 |
| XM1849R  | XM1849L | XM1849K | 49         | 0.965            | 24.51 | 0.085            | 2.16 |
| XM1865R  | XM1865L | XM1865K | 65         | 1.052            | 26.72 | 0.085            | 2.16 |

### 16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)  
 Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| Part No. |         |         | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------|---------|---------|------------|------------------|-------|------------------|------|
| Red      | Blue    | Black   |            | Inch             | mm    | Inch             | mm   |
| XM1603R  | XM1603L | XM1603K | 3          | 0.334            | 8.48  | 0.050            | 1.27 |
| XM1604R  | XM1604L | XM1604K | 4          | 0.362            | 9.19  | 0.050            | 1.27 |
| XM1605R  | XM1605L | XM1605K | 5          | 0.393            | 9.98  | 0.050            | 1.27 |
| XM1607R  | XM1607L | XM1607K | 7          | 0.459            | 11.66 | 0.050            | 1.27 |
| XM1612R  | XM1612L | XM1612K | 12         | 0.565            | 14.35 | 0.065            | 1.65 |
| XM1617R  | XM1617L | XM1617K | 17         | 0.657            | 16.69 | 0.065            | 1.65 |
| XM1619R  | XM1619L | XM1619K | 19         | 0.691            | 17.55 | 0.065            | 1.65 |
| XM1622R  | XM1622L | XM1622K | 22         | 0.724            | 18.39 | 0.065            | 1.65 |
| XM1625R  | XM1625L | XM1625K | 25         | 0.793            | 20.14 | 0.065            | 1.65 |
| XM1633R  | XM1633L | XM1633K | 33         | 0.899            | 22.83 | 0.085            | 2.16 |
| XM1642R  | XM1642L | XM1642K | 42         | 0.966            | 24.54 | 0.085            | 2.16 |
| XM1649R  | XM1649L | XM1649K | 49         | 1.069            | 27.15 | 0.085            | 2.16 |

### 14 AWG (2.11 mm²)

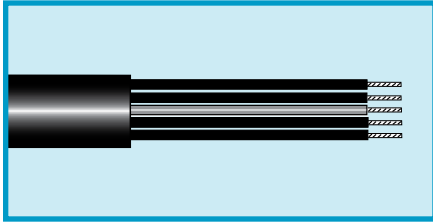
Stranding: 105/34 (105 x 0.16 mm)  
 Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| Part No. |         |         | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------|---------|---------|------------|------------------|-------|------------------|------|
| Red      | Blue    | Black   |            | Inch             | mm    | Inch             | mm   |
| XM1403R  | XM1403L | XM1403K | 3          | 0.366            | 9.30  | 0.050            | 1.27 |
| XM1404R  | XM1404L | XM1404K | 4          | 0.398            | 10.11 | 0.050            | 1.27 |
| XM1405R  | XM1405L | XM1405K | 5          | 0.464            | 11.79 | 0.065            | 1.65 |
| XM1407R  | XM1407L | XM1407K | 7          | 0.539            | 13.69 | 0.065            | 1.65 |
| XM1412R  | XM1412L | XM1412K | 12         | 0.627            | 15.93 | 0.065            | 1.65 |



# Series XM Flexible Control Cable

600/1000 V Unshielded, PVC/Nylon, PVC



Series XM Flexible Control Cable is the ideal choice for medium-to-high-flex applications. Featuring a premium-grade PVC jacket, Series XM offers a durable, oil-resistant construction that prevents contamination from hazardous fluids and protects against abrasion. Plus, its optimum flexibility and performance allows it to support a variety of industrial applications.

**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE compliant**

## Operating Temperature

-30°C to +90°C (static)  
 -5°C to +90°C (dynamic)

## Conductor Color Coding

- Chart KW, RW, LW (pages 533-535)
- Black, blue, or red\* numbered conductors with one green/yellow ground conductor

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

## Features

- UL Oil Res. I
- UL Sunlight Resistant
- Suitable for NFPA 79 application

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

\*Red insulation: AC circuits operating at less than line voltage  
 Blue insulation: DC circuits operating at less than line voltage  
 Black insulation: AC circuits operating at less than line voltage

**Alpha Wire | [www.alphawire.com](http://www.alphawire.com) | 1-800-52 ALPHA**

Specifications subject to change. For complete specifications and availability, visit [www.alphawire.com](http://www.alphawire.com).

### 12 AWG (3.38 mm²)

Stranding: 168/34 (168 x 0.16 mm)  
 Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| Part No.       |                |                | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------------|----------------|----------------|------------|------------------|-------|------------------|------|
| Red            | Blue           | Black          |            | Inch             | mm    | Inch             | mm   |
| <b>XM1203R</b> | <b>XM1203L</b> | <b>XM1203K</b> | 3          | 0.431            | 10.95 | 0.050            | 1.27 |
| <b>XM1204R</b> | <b>XM1204L</b> | <b>XM1204K</b> | 4          | 0.501            | 12.73 | 0.065            | 1.65 |
| <b>XM1205R</b> | <b>XM1205L</b> | <b>XM1205K</b> | 5          | 0.545            | 13.84 | 0.065            | 1.65 |
| <b>XM1207R</b> | <b>XM1207L</b> | <b>XM1207K</b> | 7          | 0.640            | 16.26 | 0.065            | 1.65 |

### 10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)  
 Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.10 mm) nylon

| Part No.       |                |                | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------------|----------------|----------------|------------|------------------|-------|------------------|------|
| Red            | Blue           | Black          |            | Inch             | mm    | Inch             | mm   |
| <b>XM1003R</b> | <b>XM1003L</b> | <b>XM1003K</b> | 3          | 0.487            | 12.37 | 0.050            | 1.27 |
| <b>XM1004R</b> | <b>XM1004L</b> | <b>XM1004K</b> | 4          | 0.565            | 14.35 | 0.065            | 1.65 |
| <b>XM1005R</b> | <b>XM1005L</b> | <b>XM1005K</b> | 5          | 0.618            | 15.70 | 0.065            | 1.65 |
| <b>XM1007R</b> | <b>XM1007L</b> | <b>XM1007K</b> | 7          | 0.729            | 18.52 | 0.065            | 1.65 |

### 8 AWG (8.51 mm²)

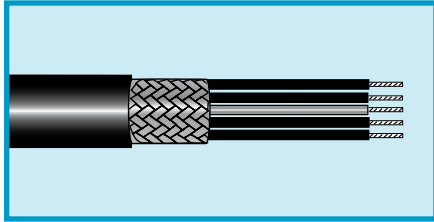
Stranding: 168/30 (168 x 0.25 mm)  
 Insulation thickness: 0.032 (0.81 mm) PVC/0.006 (0.15 mm) nylon

| Part No.       |                |                | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------------|----------------|----------------|------------|------------------|-------|------------------|------|
| Red            | Blue           | Black          |            | Inch             | mm    | Inch             | mm   |
| <b>XM0803R</b> | <b>XM0803L</b> | <b>XM0803K</b> | 3          | 0.671            | 17.04 | 0.065            | 1.65 |
| <b>XM0804R</b> | <b>XM0804L</b> | <b>XM0804K</b> | 4          | 0.737            | 18.72 | 0.065            | 1.65 |



# Series XM Flexible Control Cable

## 600/1000 V Braid Shielded, PVC/Nylon, PVC



Series XM Flexible Control Cable is the ideal choice for medium-to-high-flex applications. Featuring a premium-grade PVC jacket, Series XM offers a durable, oil-resistant construction that prevents contamination from hazardous fluids and protects against abrasion. Plus, its optimum flexibility and performance allows it to support a variety of industrial applications.

**UL TC-ER (600 V)**  
**UL WTTT (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE compliant**

### Operating Temperature

-30°C to +90°C (static)  
 -5°C to +90°C (dynamic)

### Conductor Color Coding

- Chart KW, RW, LW (pages 533-535)
- Black, blue, or red\* numbered conductors with one green/yellow ground conductor

### Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Tinned copper braid shield, 85% coverage
- Black PVC jacket

### Features

- UL Oil Res. I
- UL Sunlight Resistant
- Suitable for NFPA 79 application

### Availability

Bulk, cut to length

### FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

| 18 AWG (0.83 mm²)                                               |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding: 41/34 (41 x 0.16 mm)                                 |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM1803RCY                                                       | XM1803LCY | XM1803KCY | 3          | 0.336            | 8.53  | 0.050            | 1.27 |
| XM1804RCY                                                       | XM1804LCY | XM1804KCY | 4          | 0.361            | 9.17  | 0.050            | 1.27 |
| XM1805RCY                                                       | XM1805LCY | XM1805KCY | 5          | 0.388            | 9.86  | 0.050            | 1.27 |
| XM1807RCY                                                       | XM1807LCY | XM1807KCY | 7          | 0.446            | 11.33 | 0.050            | 1.27 |
| XM1812RCY                                                       | XM1812LCY | XM1812KCY | 12         | 0.549            | 13.94 | 0.050            | 1.27 |
| XM1817RCY                                                       | XM1817LCY | XM1817KCY | 17         | 0.631            | 16.03 | 0.065            | 1.65 |
| XM1822RCY                                                       | XM1822LCY | XM1822KCY | 22         | 0.697            | 17.70 | 0.065            | 1.65 |
| XM1825RCY                                                       | XM1825LCY | XM1825KCY | 25         | 0.758            | 19.25 | 0.065            | 1.65 |
| XM1834RCY                                                       | XM1834LCY | XM1834KCY | 34         | 0.856            | 21.74 | 0.065            | 1.65 |
| XM1842RCY                                                       | XM1842LCY | XM1842KCY | 42         | 0.915            | 23.24 | 0.085            | 2.16 |
| XM1849RCY                                                       | XM1849LCY | XM1849KCY | 49         | 1.006            | 25.55 | 0.085            | 2.16 |

| 16 AWG (1.31 mm²)                                               |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding: 65/34 (65 x 0.16 mm)                                 |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM1603RCY                                                       | XM1603LCY | XM1603KCY | 3          | 0.362            | 9.19  | 0.050            | 1.27 |
| XM1604RCY                                                       | XM1604LCY | XM1604KCY | 4          | 0.390            | 9.91  | 0.050            | 1.27 |
| XM1605RCY                                                       | XM1605LCY | XM1605KCY | 5          | 0.421            | 10.69 | 0.050            | 1.27 |
| XM1607RCY                                                       | XM1607LCY | XM1607KCY | 7          | 0.517            | 13.13 | 0.050            | 1.27 |
| XM1612RCY                                                       | XM1612LCY | XM1612KCY | 12         | 0.599            | 15.21 | 0.065            | 1.65 |
| XM1617RCY                                                       | XM1617LCY | XM1617KCY | 17         | 0.698            | 17.73 | 0.065            | 1.65 |
| XM1619RCY                                                       | XM1619LCY | XM1619KCY | 19         | 0.732            | 18.59 | 0.065            | 1.65 |
| XM1622RCY                                                       | XM1622LCY | XM1622KCY | 22         | 0.765            | 19.43 | 0.065            | 1.65 |
| XM1625RCY                                                       | XM1625LCY | XM1625KCY | 25         | 0.874            | 22.20 | 0.065            | 1.65 |
| XM1633RCY                                                       | XM1633LCY | XM1633KCY | 33         | 0.940            | 23.88 | 0.085            | 2.16 |
| XM1642RCY                                                       | XM1642LCY | XM1642KCY | 42         | 1.007            | 25.58 | 0.085            | 2.16 |
| XM1649RCY                                                       | XM1649LCY | XM1649KCY | 49         | 1.110            | 28.19 | 0.085            | 2.16 |

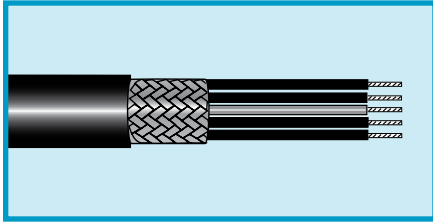
| 14 AWG (2.11 mm²)                                               |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding: 105/34 (105 x 0.16 mm)                               |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM1403RCY                                                       | XM1403LCY | XM1403KCY | 3          | 0.394            | 10.01 | 0.050            | 1.27 |
| XM1404RCY                                                       | XM1404LCY | XM1404KCY | 4          | 0.426            | 10.82 | 0.050            | 1.27 |
| XM1405RCY                                                       | XM1405LCY | XM1405KCY | 5          | 0.492            | 12.50 | 0.065            | 1.65 |
| XM1407RCY                                                       | XM1407LCY | XM1407KCY | 7          | 0.573            | 14.55 | 0.065            | 1.65 |
| XM1412RCY                                                       | XM1412LCY | XM1412KCY | 12         | 0.661            | 16.79 | 0.065            | 1.65 |

\*Red insulation: AC circuits operating at less than line voltage  
 Blue insulation: DC circuits operating at less than line voltage  
 Black insulation: AC circuits operating at less than line voltage



# Series XM Flexible Control Cable

600/1000 V Braid Shielded, PVC/Nylon, PVC



Series XM Flexible Control Cable is the ideal choice for medium-to-high-flex applications. Featuring a premium-grade PVC jacket, Series XM offers a durable, oil-resistant construction that prevents contamination from hazardous fluids and protects against abrasion. Plus, its optimum flexibility and performance allows it to support a variety of industrial applications.

**UL TC-ER (600 V)**  
**UL WTTT (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE compliant**

## Operating Temperature

-30°C to +90°C (static)  
 -5°C to +90°C (dynamic)

## Conductor Color Coding

- Chart KW, RW, LW (pages 533-535)
- Black, blue, or red\* numbered conductors with one green/yellow ground conductor

## Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Tinned copper braid shield, 85% coverage
- Black PVC jacket

## Features

- UL Oil Res. I
- UL Sunlight Resistant
- Suitable for NFPA 79 application

## Availability

Bulk, cut to length

## FIT® Tubing Recommendations

- FIT-600: Highly flexible cross-linked elastomer
- FIT-650: Chemical- and temperature-resistant fluoroelastomer

| 12 AWG (3.38 mm²)                                               |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding 168/34 (168 x 0.16 mm)                                |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM1203RCY                                                       | XM1203LCY | XM1203KCY | 3          | 0.459            | 11.66 | 0.050            | 1.27 |
| XM1204RCY                                                       | XM1204LCY | XM1204KCY | 4          | 0.529            | 13.44 | 0.065            | 1.65 |
| XM1205RCY                                                       | XM1205LCY | XM1205KCY | 5          | 0.579            | 14.71 | 0.065            | 1.65 |
| XM1207RCY                                                       | XM1207LCY | XM1207KCY | 7          | 0.674            | 17.12 | 0.065            | 1.65 |

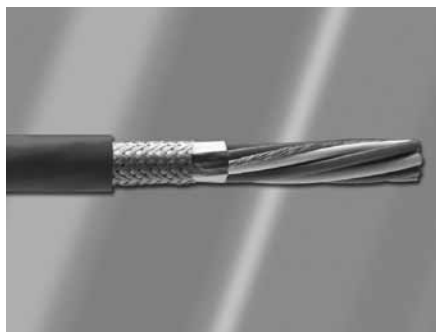
| 10 AWG (5.32 mm²)                                               |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding: 105/30 (105 x 0.25 mm)                               |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM1003RCY                                                       | XM1003LCY | XM1003KCY | 3          | 0.551            | 14.00 | 0.050            | 1.27 |
| XM1004RCY                                                       | XM1004LCY | XM1004KCY | 4          | 0.599            | 15.21 | 0.065            | 1.65 |
| XM1005RCY                                                       | XM1005LCY | XM1005KCY | 5          | 0.652            | 16.56 | 0.065            | 1.65 |
| XM1007RCY                                                       | XM1007LCY | XM1007KCY | 7          | 0.770            | 19.56 | 0.065            | 1.65 |

| 8 AWG (8.51 mm²)                                                |           |           |            |                  |       |                  |      |
|-----------------------------------------------------------------|-----------|-----------|------------|------------------|-------|------------------|------|
| Stranding: 168/30 (168 x 0.25 mm)                               |           |           |            |                  |       |                  |      |
| Insulation thickness: 0.032 (0.81 mm) PVC/0.006 (0.15 mm) nylon |           |           |            |                  |       |                  |      |
| Part No.                                                        |           |           | Conductors | Nominal Diameter |       | Jacket Thickness |      |
| Red                                                             | Blue      | Black     |            | Inch             | mm    | Inch             | mm   |
| XM0803RCY                                                       | XM0803LCY | XM0803KCY | 3          | 0.712            | 18.08 | 0.065            | 1.65 |
| XM0804RCY                                                       | XM0804LCY | XM0804KCY | 4          | 0.778            | 19.76 | 0.065            | 1.65 |

\*Red insulation: AC circuits operating at less than line voltage  
 Blue insulation: DC circuits operating at less than line voltage  
 Black insulation: AC circuits operating at less than line voltage



# The Right Cable . . . Just the Way You Want It



## Custom Cable as Custom as Your Application!

Alpha Wire has a long heritage of supplying a wide range of wire, cable, tubing, and accessories for varying applications. We understand that despite the breadth and depth of our product portfolio, sometimes you require a cable as unique as the application. We make it easy to configure a custom cable.

We can also help you fashion the perfect cable to meet application parameters. The Alpha Wire Cable Design Center® allows you to quickly and easily modify any standard Alpha cable specification to your own application requirements. Count on the cable and application experts at Alpha Wire for guidance.

With our quick quotes and fast production turnaround, we will have your custom cable to you in no time.

- Meet special application requirements
- Increase system reliability with application-specific configurations
- Speed installation by reducing the number of different cables needed
- Get the best match of electrical, mechanical, and environmental properties
- Build composite cables with a mixture of conductor sizes, insulations, and shielding
- Spec your design fast with the on-line Cable Design Center™
- Receive quotes quickly
- Experience industry-leading turnarounds on custom cables