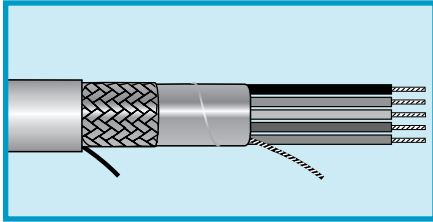


# Series SF Flexible Servo Cable

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 18 pr	1.32 0.96	26/30 19/30	26 x 0.25 19 x 0.25	0.590	14.99	0.065	1.65
SF61221CY	4 +2 pairs	14 pwr 18 pr	2.09 0.96	41/30 19/30	41 x 0.25 19 x 0.25	0.618	15.70	0.065	1.65
SF61222CY	4 +2 pairs	12 pwr 16 pr	3.31 1.32	65/30 26/30	65 x 0.25 26 x 0.25	0.674	17.12	0.065	1.65
SF61223CY	4 +2 pairs	10 pwr 16 pr	5.37 1.32	105/30 26/30	105 x 0.25 26 x 0.25	0.757	19.23	0.065	1.65
SF61224CY	4 +2 pairs	8 pwr 16 pr	8.50 1.32	168/30 26/30	168 x 0.25 26 x 0.25	0.943	23.95	0.085	2.16



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Alpha offers cable from stock in most sizes and constructions, in a variety of packaging options, so you can order it when you need it and how you need it. Our products are available for same-day shipment to practically anywhere in the world, eliminating long lead times.

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- Food and Beverage
- Medical/Pharmaceutical
- Mining
- Paper and Pulp
- Semiconductor Processing
- Warehouse and Distribution Centers

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- Automated CNC Tool Handlers
- Automated Guided Vehicle Equipment
- Automated Sorting Systems
- Automated Storage and Retrieval
- Automated Wafer Handling
- Bulk Conveying (Mining)
- Conveyor Systems
- Robotic/Gantry Palletizers

### **Alpha Wire**

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## Wire and cable ideal for material handling

### Series V VFD Cables

- Designed for extended duty cycles
- Symmetrical design for uniform electrical characteristics
- Low capacitance for improved signal transmission over longer distances
- 4-conductor versions with or without brake pair
- 3-conductor versions with reduced diameter and increased flexibility for easier routing and handling

### Series SF Flexible Servo Cables

- Multi-axis control
- Resolver and encoder feedback
- Dynamic braking
- High-flex applications

### Series V-Flex VFD Cable

- Extra flexibility
- Tough TPE jacket for protection against oil, solvents, and other hazards
- Symmetrical design for uniform electrical characteristics
- Low capacitance for improved signal transmission over longer distances
- Rated for use at temperatures as low as -40°C
- 4-conductor versions

### Automation Cables

- ControlNet™, DeviceNet™, Fieldbus A/B, High-Speed Fieldbus, Industrial Twinax, PROFIBUS®-DP, RS-485
- High-speed connectivity solutions
- Plug and play modularity
- High-level signal integrity

### Xtra-Guard® Flex Series

- Long cycle life for high-speed flexing
- Supports pick-and-place robotics
- Multiple sizes and conductor counts
- Outstanding EMI protection

### Series M, F, P Control Cables

- Complete range of control applications
- Series F for flexibility: up to 20 million continuous rolling flex cycles
- Series M for robust control
- Series P for enhanced flexibility and routability

### Series XM Control Cables

- Continuous flexibility in an affordable, specially formulated PVC jacket
- Oil and chemical resistant
- Tray-rated applications

## Additional product categories available to support your material handling needs

### FIT® Heat-Shrink Tubing

- General-purpose polyolefin with 2:1 shrink ratio
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- Dual-wall (meltable inner wall, mastic, and adhesive lined)
- Special application (PVDF, FEP/PTFE, flexible, fabric)
- R&D kits available

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### Custom Cable

- Cable Design Center® on AlphaWire.com
- Short lead times and low minimums
- Quickly and easily modify any standard Alpha cable specification
- Get the best match of electrical, mechanical, and environmental performance

### Service and support, second-to-none

We make it easy for you to select the right cable for your specific material handling equipment application. Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator. You can even design cable to your specification. It's easy—just visit [www.alphawire.com](http://www.alphawire.com)!

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- Harnessing, routing, shielding
- Rigid and flexible tubing
- Sleeving
- Shielding/grounding

### Xtra-Guard Industrial Ethernet Cable

- Cat 5e two- and four-pair cable
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- -50°C up to 125°C
- Special configurations available, such as power + data
- CMR Riser rated



GLOBAL HEADQUARTERS  
711 Lidgerwood Avenue  
Elizabeth, NJ 07207-0711 USA  
Toll Free: 1-800-52 ALPHA  
Tel: 1-908-925-8000  
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E-mail: [info@alphawire.com](mailto:info@alphawire.com)

EUROPE  
Alpha Wire International  
Saxon House  
1 Downside | Sunbury-on-Thames  
Middlesex | United Kingdom | TW16 6RT  
Tel: +44-(0)-800-288-8809  
Fax: +44-(0)-800-288-8810  
E-mail: [europe@alphawire.com](mailto:europe@alphawire.com)

ASIA PACIFIC  
Alpha Wire  
Silver Center | Room 1708  
North Shanxi Road 1388  
Shanghai | China | 200060  
Tel: +86-21-61498201/61498205  
Fax: +86-21-61498001  
E-mail: [apac@alphawire.com](mailto:apac@alphawire.com)



# Alpha Wire Industrial Series Tray-Rated Cable

**INDUSTRIAL™  
SERIES**  
From AlphaWire



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# Alpha Wire Industrial Series (AWIS)

## Advanced Cable Products for Industrial Applications

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From AlphaWire



From 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 provide reliable performance**

#### **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 XM Flexible Control Cable**

Tough PVC cable for continuous flex control applications

#### **Series F Continuous Flex Control Cables**

Rated for up to 20 million rolling flex cycles

#### **Series SF Servo Control Cable**

Maximum flexibility in servo control and power

#### **Series V VFD Cables**

Double-shielded for superior EMI performance

#### **Series V-Flex VFD Cable**

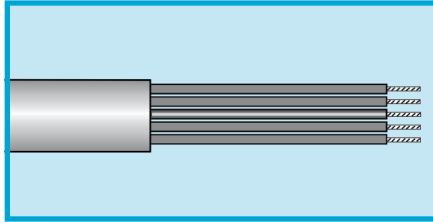
CSA-rated flexible VFD cable

### **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

# Series M Control Cable

Oil and Chemical-Resistant PVC Control Cable  
for Stationary or Minimal Flex Applications  
600 V Unshielded, Multiconductor



**UL TC-ER**  
**UL MTW**  
**UL WTTT (1000 V)**  
**UL PLTC (300 V)**  
**CSA AWM I/II A/B FT4**  
**CE LVD 2006/95/EC**

## 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 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
<b>M18103KW</b>	<b>M18103LW</b>	<b>M18103RW</b>	3	0.301	7.65	0.050	1.27
<b>M18104KW</b>	<b>M18104LW</b>	<b>M18104RW</b>	4	0.326	8.28	0.050	1.27
<b>M18105KW</b>	<b>M18105LW</b>	<b>M18105RW</b>	5	0.353	8.97	0.050	1.27
<b>M18107KW</b>	<b>M18107LW</b>	<b>M18107RW</b>	7	0.381	9.68	0.050	1.27
<b>M18112KW</b>	<b>M18112LW</b>	<b>M18112RW</b>	12	0.515	13.08	0.065	1.65
<b>M18117KW</b>	<b>M18117LW</b>	<b>M18117RW</b>	17	0.594	15.09	0.065	1.65
<b>M18122KW</b>	<b>M18122LW</b>	<b>M18122RW</b>	22	0.651	16.54	0.065	1.65
<b>M18125KW</b>	<b>M18125LW</b>	<b>M18125RW</b>	25	0.699	17.75	0.065	1.65
<b>M18134KW</b>	<b>M18134LW</b>	<b>M18134RW</b>	34	0.777	19.74	0.065	1.65
<b>M18142KW</b>	<b>M18142LW</b>	<b>M18142RW</b>	42	0.874	22.20	0.085	2.15
<b>M18149KW</b>	<b>M18149LW</b>	<b>M18149RW</b>	49	0.923	23.44	0.085	2.15
<b>M18165KW</b>	<b>M18165LW</b>	<b>M18165RW</b>	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
<b>M16103KW</b>	<b>M16103LW</b>	<b>M16103RW</b>	3	0.323	8.20	0.050	1.27
<b>M16104KW</b>	<b>M16104LW</b>	<b>M16104RW</b>	4	0.350	8.89	0.050	1.27
<b>M16105KW</b>	<b>M16105LW</b>	<b>M16105RW</b>	5	0.380	9.65	0.050	1.27
<b>M16107KW</b>	<b>M16107LW</b>	<b>M16107RW</b>	7	0.421	10.69	0.055	1.39
<b>M16112KW</b>	<b>M16112LW</b>	<b>M16112RW</b>	12	0.557	14.14	0.065	1.65
<b>M16117KW</b>	<b>M16117LW</b>	<b>M16117RW</b>	17	0.644	16.35	0.065	1.65
<b>M16119KW</b>	<b>M16119LW</b>	<b>M16119RW</b>	19	0.644	16.35	0.065	1.65
<b>M16122KW</b>	<b>M16122LW</b>	<b>M16122RW</b>	22	0.707	17.95	0.065	1.65
<b>M16125KW</b>	<b>M16125LW</b>	<b>M16125RW</b>	25	0.761	19.32	0.065	1.65
<b>M16133KW</b>	<b>M16133LW</b>	<b>M16133RW</b>	33	0.857	21.76	0.085	2.15
<b>M16142KW</b>	<b>M16142LW</b>	<b>M16142RW</b>	42	0.950	24.13	0.085	2.15
<b>M16149KW</b>	<b>M16149LW</b>	<b>M16149RW</b>	49	1.005	25.52	0.085	2.15
<b>M16165KW</b>	<b>M16165LW</b>	<b>M16165RW</b>	65	1.122	28.49	0.085	2.15

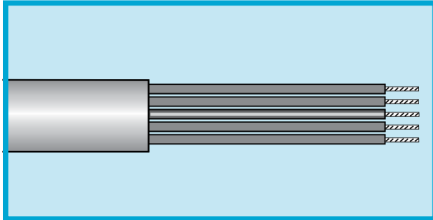
Series M cable meets the needs for stationary/cable tray and minimal flexing applications and where superior resistance to oils and chemicals is mandatory. It offers superior performance in static applications, with a tough PVC/PVC-nylon.

\*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

Oil and Chemical-Resistant PVC Control Cable  
for Stationary or Minimal Flex Applications  
600 V Unshielded, Multiconductor



**UL TC-ER**  
**UL MTW**  
**UL WTTT (1000 V)**  
**UL PLTC (300 V)**  
**CSA AWM I/II A/B FT4**  
**CE LVD 2006/95/EC**

## 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 conductor
- 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 mm<sup>2</sup>)

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
<b>M14104KW</b>	<b>M14104LW</b>	<b>M14104RW</b>	4	0.384	9.75	0.050	1.27
<b>M14105KW</b>	<b>M14105LW</b>	<b>M14105RW</b>	5	0.428	10.87	0.055	1.39
<b>M14107KW</b>	<b>M14107LW</b>	<b>M14107RW</b>	7	0.483	12.26	0.065	1.65
<b>M14112KW</b>	<b>M14112LW</b>	<b>M14112RW</b>	12	0.615	15.62	0.065	1.65
<b>M14125KW</b>	<b>M14125LW</b>	<b>M14125RW</b>	25	0.887	22.52	0.085	2.15

### 12 AWG (3.31 mm<sup>2</sup>)

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
<b>M12104KW</b>	<b>M12104LW</b>	<b>M12104RW</b>	4	0.44	11.17	0.055	1.39
<b>M12105KW</b>	<b>M12105LW</b>	<b>M12105RW</b>	5	0.499	12.67	0.065	1.65
<b>M12107KW</b>	<b>M12107LW</b>	<b>M12107RW</b>	7	0.540	13.71	0.065	1.65

### 10 AWG (5.32 mm<sup>2</sup>)

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
<b>M10104KW</b>	<b>M10104LW</b>	<b>M10104RW</b>	4	0.549	13.94	0.065	1.65
<b>M10105KW</b>	<b>M10105LW</b>	<b>M10105RW</b>	5	0.600	15.24	0.065	1.65
<b>M10107KW</b>	<b>M10107LW</b>	<b>M10107RW</b>	7	0.652	16.56	0.065	1.65

### 8 AWG (8.52 mm<sup>2</sup>)

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

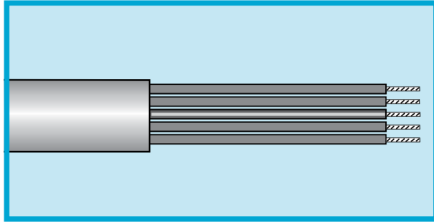
Part No.			Conductors	Nominal Diameter		Jacket Thickness	
Black Insul.	Blue Insul.	Red Insul.		Inch	mm	Inch	mm
<b>M08104KW</b>	<b>M08104LW</b>	<b>M08104RW</b>	4	0.724	18.38	0.065	1.65
<b>M08105KW</b>	<b>M08105LW</b>	<b>M08105RW</b>	5	0.795	20.19	0.065	1.65

\*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

Highly Flexible Oil/Chemical-Resistant TPE Control Cable for 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**  
**CSA CIC/TC**  
**CE LVD 2006/95/EC**

### 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 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

## 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 (0.41 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
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

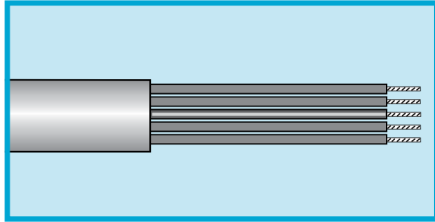
Series P cables combine the exceptional oil and chemical resistance of Series M cable with a specially formulated thermoplastic elastomer jacket for additional flexibility, making it easier to install and route the cable in tight spaces. The cable can be used in flex applications where travel distances and flexing speeds are low.

\*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

Highly Flexible Oil/Chemical-Resistant TPE Control Cable for 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**  
**CSA CIC/TC**  
**CE LVD 2006/95/EC**

## 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 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



### 14 AWG (2.08 mm<sup>2</sup>)

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 mm<sup>2</sup>)

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 mm<sup>2</sup>)

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 mm<sup>2</sup>)

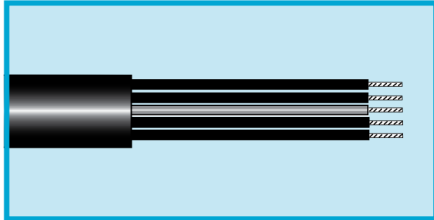
Stranding: 168/30 (168 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm) PVC/0.005 (0.010 mm) nylon

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

\*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

Tough PVC Cable for High-Flex Cable Track Applications  
(12 Million Life Cycles)  
600/1000 V Unshielded, PVC/Nylon, PVC



Series XM Flexible Control Cable is the ideal choice for medium-to-high-flex applications of up to 12 million cycles. 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 LVD 2006/95/EC**

## Operating Temperature

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

## Conductor Color Coding

- 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

### 18 AWG (0.83 mm<sup>2</sup>)

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 mm<sup>2</sup>)

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
XM1665R	XM1665L	XM1665K	65	1.168	29.67	0.085	2.16

### 14 AWG (2.11 mm<sup>2</sup>)

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

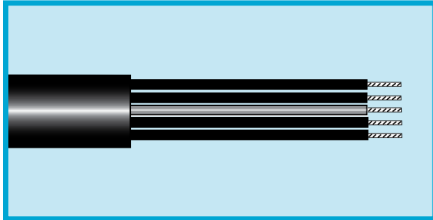
\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage



# Series XM Flexible Control Cable

Tough PVC Cable for High-Flex Cable Track Applications  
(12 Million Life Cycles)

600/1000 V Unshielded, PVC/Nylon, PVC



**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE LVD 2006/95/EC**

## Operating Temperature

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

## Conductor Color Coding

- 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



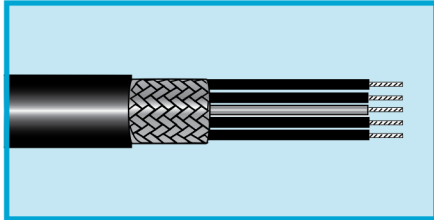
12 AWG (3.38 mm <sup>2</sup> )							
Stranding 168/34 (168 x 0.16 mm)							
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon							
Part No.			Conductors	Nominal Diameter		Jacket Thickness	
Red	Blue	Black		Inch	mm	Inch	mm
<b>XM1203R</b>	<b>XM1203L</b>	<b>XM1203K</b>	3	0.431	10.95	0.050	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 mm <sup>2</sup> )							
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 mm <sup>2</sup> )							
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

Tough PVC Cable for High-Flex Cable Track Applications  
(12 Million Life Cycles)  
600/1000 V Braid Shielded, PVC/Nylon, PVC



**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE LVD 2006/95/EC**

## Operating Temperature

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

## Conductor Color Coding

- 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

\*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 mm<sup>2</sup>)

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 mm<sup>2</sup>)

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 mm<sup>2</sup>)

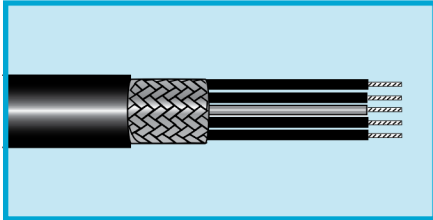
Stranding: 105/34 (105 x 0.16 mm)  
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

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

# Series XM Flexible Control Cable

Tough PVC Cable for High-Flex Cable Track Applications  
(12 Million Life Cycles)

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



**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**UL MTW (600 V)**  
**CSA AWM I/II A/B FT4**  
**CE LVD 2006/95/EC**

## Operating Temperature

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

## Conductor Color Coding

- 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

\*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



### 12 AWG (3.38 mm<sup>2</sup>)

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 mm<sup>2</sup>)

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

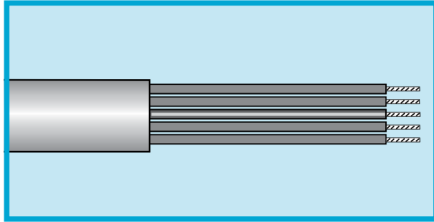
### 8 AWG (8.51 mm<sup>2</sup>)

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

# Series F Continuous Flex Control Cable

Continuous Flex TPE Control Cable  
(20 Million Flex Life Cycles)  
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**  
**CSA CIC/TC**  
**CE LVD 2006/95/EC**

## 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 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

### 18 AWG (0.83 mm<sup>2</sup>)

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
<b>F18003KW</b>	<b>F18003LW</b>	<b>F18003RW</b>	3	0.308	7.82	0.050	1.27
<b>F18004KW</b>	<b>F18004LW</b>	<b>F18004RW</b>	4	0.333	8.46	0.050	1.27
<b>F18005KW</b>	<b>F18005LW</b>	<b>F18005RW</b>	5	0.360	9.14	0.050	1.27
<b>F18007KW</b>	<b>F18007LW</b>	<b>F18007RW</b>	7	0.418	10.62	0.050	1.27
<b>F18012KW</b>	<b>F18012LW</b>	<b>F18012RW</b>	12	0.515	13.08	0.065	1.65
<b>F18017KW</b>	<b>F18017LW</b>	<b>F18017RW</b>	17	0.597	15.16	0.065	1.65
<b>F18022KW</b>	<b>F18022LW</b>	<b>F18022RW</b>	22	0.656	16.66	0.065	1.65
<b>F18025KW</b>	<b>F18025LW</b>	<b>F18025RW</b>	25	0.717	18.21	0.065	1.65
<b>F18034KW</b>	<b>F18034LW</b>	<b>F18034RW</b>	34	0.775	19.69	0.065	1.65
<b>F18042KW</b>	<b>F18042LW</b>	<b>F18042RW</b>	42	0.874	22.20	0.085	2.16
<b>F18049KW</b>	<b>F18049LW</b>	<b>F18049RW</b>	49	0.965	24.51	0.085	2.16
<b>F18065KW</b>	<b>F18065LW</b>	<b>F18065RW</b>	65	1.052	26.72	0.085	2.16

### 16 AWG (1.31 mm<sup>2</sup>)

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
<b>F16003KW</b>	<b>F16003LW</b>	<b>F16003RW</b>	3	0.334	8.48	0.050	1.27
<b>F16004KW</b>	<b>F16004LW</b>	<b>F16004RW</b>	4	0.362	9.19	0.050	1.27
<b>F16005KW</b>	<b>F16005LW</b>	<b>F16005RW</b>	5	0.393	9.98	0.050	1.27
<b>F16007KW</b>	<b>F16007LW</b>	<b>F16007RW</b>	7	0.489	12.42	0.065	1.65
<b>F16012KW</b>	<b>F16012LW</b>	<b>F16012RW</b>	12	0.565	14.35	0.065	1.65
<b>F16017KW</b>	<b>F16017LW</b>	<b>F16017RW</b>	17	0.657	16.69	0.065	1.65
<b>F16019KW</b>	<b>F16019LW</b>	<b>F16019RW</b>	19	0.691	17.55	0.065	1.65
<b>F16022KW</b>	<b>F16022LW</b>	<b>F16022RW</b>	22	0.724	18.39	0.065	1.65
<b>F16025KW</b>	<b>F16025LW</b>	<b>F16025RW</b>	25	0.793	20.14	0.065	1.65
<b>F16033KW</b>	<b>F16033LW</b>	<b>F16033RW</b>	33	0.899	22.83	0.085	2.16
<b>F16042KW</b>	<b>F16042LW</b>	<b>F16042RW</b>	42	0.966	24.54	0.085	2.16
<b>F16049KW</b>	<b>F16049LW</b>	<b>F16049RW</b>	49	1.069	27.15	0.085	2.16
<b>F16065KW</b>	<b>F16065LW</b>	<b>F16065RW</b>	65	1.168	29.67	0.085	2.16

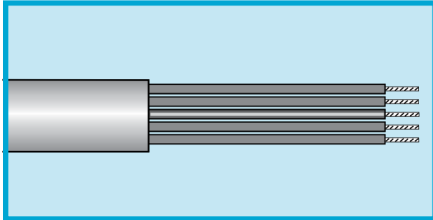
Designed for a variety of flexing styles, Series F cables have been tested to exceed over 20 million rolling flex cycles, making them ideal for both single-axis and multi-axis motion control and robotic applications where continuous flexing is required. The TPE jacket offers exceptional resistance to oils, solvents, and chemicals found in industrial applications.

\*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 F Continuous Flex Control Cable

Continuous Flex TPE Control Cable  
(20 Million Flex Life Cycles)  
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**  
**CSA CIC/TC**  
**CE LVD 2006/95/EC**

## 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 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 mm<sup>2</sup>)

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
<b>F14004KW</b>	<b>F14004LW</b>	<b>F14004RW</b>	4	0.398	10.11	0.050	1.27
<b>F14005KW</b>	<b>F14005LW</b>	<b>F14005RW</b>	5	0.434	11.02	0.050	1.27
<b>F14007KW</b>	<b>F14007LW</b>	<b>F14007RW</b>	7	0.539	13.69	0.065	1.65
<b>F14012KW</b>	<b>F14012LW</b>	<b>F14012RW</b>	12	0.628	15.95	0.065	1.65

### 12 AWG (3.38 mm<sup>2</sup>)

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
<b>F12004KW</b>	<b>F12004LW</b>	<b>F12004RW</b>	4	0.501	12.73	0.065	1.65
<b>F12005KW</b>	<b>F12005LW</b>	<b>F12005RW</b>	5	0.545	13.84	0.065	1.65
<b>F12007KW</b>	<b>F12007LW</b>	<b>F12007RW</b>	7	0.640	16.26	0.065	1.65

### 10 AWG (5.32 mm<sup>2</sup>)

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
<b>F10004KW</b>	<b>F10004LW</b>	<b>F10004RW</b>	4	0.565	14.35	0.065	1.65
<b>F10005KW</b>	<b>F10005LW</b>	<b>F10005RW</b>	5	0.618	15.70	0.065	1.65
<b>F10007KW</b>	<b>F10007LW</b>	<b>F10007RW</b>	7	0.729	18.52	0.065	1.65

### 8 AWG (8.51 mm<sup>2</sup>)

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
<b>F08004KW</b>	<b>F08004LW</b>	<b>F08004RW</b>	4	0.740	18.80	0.065	1.65

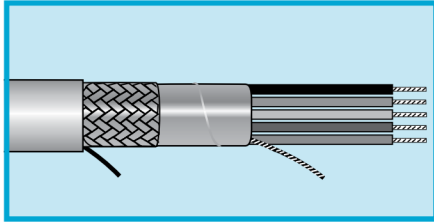
\*Red insulation: AC circuits operating at less than line voltage  
Blue insulation: DC circuits operating at less than line voltage  
Black insulation: AC circuits operating at less than line voltage





# Series SF Highly Flexible TPE Servo Cable

600/1000 V, PVC/Nylon, TPE



**UL TC-ER (600 V)**  
**UL WTTTC (1000 V)**  
**CSA AWM I/II A/B FT4**  
**CSA CIC/TC**  
**CE LVD 2006/95/EC**

Designed specifically for connecting power between the supply and servo motors, drives, and controllers, Series SF cables feature a flexible TPE jacket and PVC/nylon insulation, making them suitable for flexing applications that require continuous movement.

### Operating Temperature

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

### Conductor Color Coding

- Multiconductor: 1 green/yellow and 3 black numbered
- Pairs: Black-red, black-white

### 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

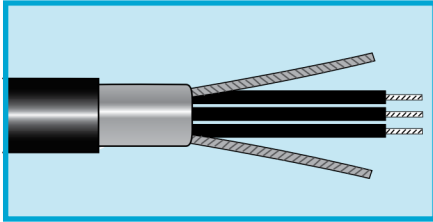
4 conductors for power/ground + 2 individually shielded pairs for brake or temperature control

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 18 pr	1.32 0.96	26/30 19/30	26 x 0.25 19 x 0.25	0.590	14.99	0.065	1.65
SF61221CY	4 + 2 pairs	14 pwr 18 pr	2.09 0.96	41/30 19/30	41 x 0.25 19 x 0.25	0.618	15.70	0.065	1.65
SF61222CY	4 + 2 pairs	12 pwr 16 pr	3.31 1.32	65/30 26/30	65 x 0.25 26 x 0.25	0.674	17.12	0.065	1.65
SF61223CY	4 + 2 pairs	10 pwr 16 pr	5.37 1.32	105/30 26/30	105 x 0.25 26 x 0.25	0.757	19.23	0.065	1.65
SF61224CY	4 + 2 pairs	8 pwr 16 pr	8.50 1.32	168/30 26/30	168 x 0.25 26 x 0.25	0.943	23.95	0.085	2.16



# Series V VFD Cable

Enhanced Design for Superior Performance in Variable-Frequency Drives  
600/1000 V Shielded, 3 Conductor



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 2006/95/EC  
Pennsylvania MSHA**

### 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 (XLPE)

- 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

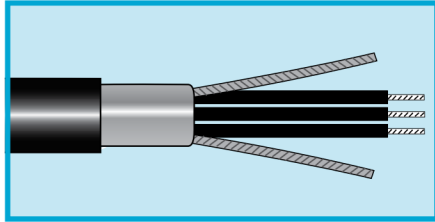
- FIT-221: General-purpose cross-linked polyolefin
- FIT-321V: Low-shrink-temperature, flame-retardant cross-linked polyolefin

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 Cable

Enhanced Design for Superior Performance in Variable-Frequency Drives  
600/1000 V Shielded, 4 Conductor



**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 2006/95/EC  
Pennsylvania MSHA**

- 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

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.

### 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 (XLPE)

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

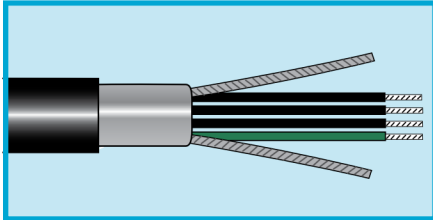
Four-Conductor VFD Cable

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



# Series V-Flex VFD Cable

Enhanced Design and TPE Jackets for Flexibility  
600/1000 V Shielded



**UL RHW-2 (16 - 2 AWG)**  
**UL XHHW-2**  
**UL TC-ER**  
**UL 1000V Flexible Motor Supply Cable**  
**CSA CIC/TC**  
**CSA FT4**  
**CE LVD 2006/95/EC**  
**Pennsylvania MSHA**

## Operating Temperature

- 40°C to +90°C

## Conductor Color Coding

- 1 green or green/yellow and 3 black, numbered

## Materials

- Stranded tinned copper conductors
- Stranded tinned copper ground wires
- Cross-linked polyethylene insulation (XLPE)
- Shielding  
16 - 4 AWG:  
Aluminum/polyester/aluminum foil and tinned copper braid with 85% coverage  
2 - 4/0 AWG:  
Double-layer copper tape
- Thermoplastic elastomer jacket

## Voltage

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

## Features

- Oil Res. I/II
- UL Sunlight Resistant
- CSA -40°C Cold Bend
- 5x 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

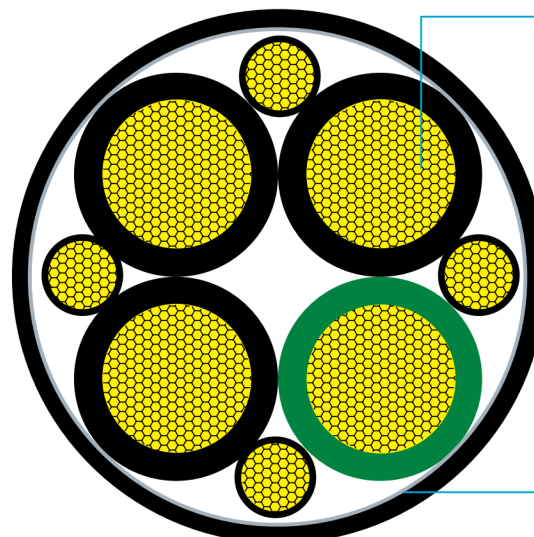
Four-Conductor VFD Cables

Part No.	Wire Size		Stranding		Insulation Thickness		Core OD		Jacket Thickness		Nominal Diameter	
	AWG	mm <sup>2</sup>	AWG	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
<b>VF16016</b>	16	1.32	26/30	26 x 0.254	0.046	1.17	0.375	9.53	0.065	1.65	0.545	13.84
<b>VF16014</b>	14	2.08	41/30	41 x 0.254	0.046	1.17	0.414	10.52	0.065	1.65	0.584	14.83
<b>VF16012</b>	12	3.29	65/30	65 x 0.254	0.046	1.17	0.461	11.71	0.065	1.65	0.631	16.03
<b>VF16010</b>	10	5.32	105/30	105 x 0.254	0.047	1.19	0.540	13.72	0.085	2.16	0.75	19.05
<b>VF16008</b>	8	8.61	133/29	133 x 0.287	0.061	1.55	0.701	17.81	0.086	2.18	0.92	23.37
<b>VF16006</b>	6	13.60	133/27	133 x 0.361	0.061	1.55	0.798	20.27	0.086	2.18	1.017	25.83
<b>VF16004</b>	4	21.60	133/25	133 x 0.455	0.061	1.55	0.934	23.72	0.086	2.18	1.157	29.39

## Designed to Excel in VFD Systems

Series V and V-Flex cables give you the features you need for high-performance VFD applications.

Pressure-extruded cross-linked polyethylene insulation (XLPE) and symmetrical cable geometry combine to provide the electrical characteristics required for precise control and long life.



## XLPE Insulation

Lower Capacitance  
Excellent Corona Resistance  
Longer Transmission Distances

## Round Geometry

Enhances Uniform Electrical Properties

Allows IP67/NEMA 6 Liquid-Tight Sealing

## Double Shielding

EMI Protection



# Series V VFD and V-Flex Cable Selection Guide

Drive HP	115 VAC, 3 Phase					230 VAC, 3 Phase				
	Wire Gauge (AWG)	Full Load Current, Amps	Alpha Wire Part No.			Wire Gauge (AWG)	Full Load Current, Amps	Alpha Wire Part No.		
			Series V		Series VF			Series V		VF
			3 Cond.	4 Cond.	4 Cond.			3 Cond.	4 Cond.	4 Cond.
1/2	16	4.4				16	2.2			
3/4	16	6.4				16	3.2			
1	16	8.4	V16316	V16016	VF16016	16	4.2	V16316	V16016	VF16016
1-1/2	16	12.0				16	6.0			
2	16	13.6				16	6.8			
3	—	—	—	—	—	16	9.6			
5	—	—	—	—	—	14	15.2	V16314	V16014	VF16014
7-1/2	—	—	—	—	—	12	22	V16312	V16012	VF16012
10	—	—	—	—	—	10	28	V16310	V16010	VF16010
15	—	—	—	—	—	8	42	V16308	V16008	VF16008
20	—	—	—	—	—	6	54	V16306	V16006	VF16006
25	—	—	—	—	—	4	68	V16304	V16004	VF16004
30	—	—	—	—	—	2	80	V16304	V16004	—
40	—	—	—	—	—	2	104	—	V16002	—
50	—	—	—	—	—	1/0	130	V16000	—	—
60	—	—	—	—	—	2/0	154	V16020	—	—
75	—	—	—	—	—	4/0	192	V16040	—	—

Drive HP	460 VAC, 3 Phase					575 VAC, 3 Phase				
	Wire Gauge (AWG)	Full Load Current, Amps	Alpha Wire Part No.			Wire Gauge (AWG)	Full Load Current, Amps	Alpha Wire Part No.		
			Series V		Series VF			Series V		VF
			3 Cond.	4 Cond.	4 Cond.			3 Cond.	4 Cond.	4 Cond.
1/2	16	1.1				16	0.9			
3/4	16	1.6				16	1.3			
1	16	2.1				16	1.7			
1-1/2	16	3.0				16	2.4			
2	16	3.4	V16316	V16016	VF16016	16	2.7	V16316	V16016	VF16016
3	16	4.8				16	3.9			
5	16	7.6				16	6.1			
7-1/2	16	11				16	9			
10	16	14				16	11			
15	12	21	V16312	V16012	VF16012	14	17	V16314	V16014	VF16014
20	10	27	V16310	V16010	VF16010	12	22	V16312	V16012	VF16012
25	8	34	V16308	V16008	VF16008	10	27	V16310	V16010	VF16010
30	8	40	V16308	V16008	VF16008	10	32	V16310	V16010	VF16010
40	6	52	V16306	V16006	VF16006	8	41	V16308	V16008	VF16008
50	4	65	V16304	V16004	VF16004	6	52	V16306	V16006	VF16006
60	2	77	—	V16002	VF16302	4	62	V16304	V16004	VF16004
75	2	96	—	V16002	VF16302	2	77	—	V16002	VF16302
100	1/0	124	—	V16000	—	2	99	—	V16002	VF16302
125	2/0	156	—	V16020	—	1/0	125	—	V16000	—
150	4/0	180	—	V16040	—	2/0	144	—	V16020	—
200	—	—	—	—	—	4/0	192	—	V16040	—

### An Extensive Range of Flexible Cable Solutions

Alpha Wire's industrial cables are well suited to the widest range of industrial applications, from the factory floor to process controls to wind turbines and light-duty VFD applications. We offer an extensive 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.

In addition to our AWIS cable family, we offer tougher flexible alternatives in our Xtra-Guard® 65000, 85000, 86000 and 87000 Series cables with up to 14 million flex cycles. For a smaller, lighter flexible control cable, our EcoFlex® flexible control cable and EcoFlex® PUR continuous flex cable can provide up to 55% weight and 40% size savings, and both are completely recyclable. Our flexible motor supply cable provides exceptional performance in a variety of motor and drive applications. We can also create the ideal custom cable for your specific application.

General Application	Cable	Advantages
Stationary	Series M	PVC jacket Oil resistant (Oil Res. I)
Stationary/Minimal Flex	Series P	TPE jacket Improved oil and chemical resistance (Oil Res. I/II)
Moderate Flexing	EcoFlex Cable	100% recyclable mPPE insulation/jacket 1 million flex cycles RoHS and REACH compliant Size and weight reduction
	Xtra-Guard Standard Flex (65000 Series)	1 million flex cycles PVC jacket
High Flexing	EcoFlex PUR Continuous Flex	Polyurethane jacket, mPPE insulation 8 million flex cycles Zero halogen Saves space and weight
	Series XM	12 million flex cycles Oil resistant (Oil Res. I)
	Series F	20 million flex cycles Improved oil and chemical resistance (Oil Res. I/II)
	Xtra-Guard Continuous Flex Data (86000 Series)	6 million flex cycles PVC jacket
	Xtra-Guard Continuous Flex Control (85000 Series)	14 million flex cycles PVC jacket
Servomotors/Drives	Xtra-Guard Torsional Flex (87000 Series)	1 million flex cycles TPE insulation, polyurethane jacket
	Series SF	TPE jacket Enhanced flexibility for easy installation and routing Improved oil and chemical resistance (Oil Res. I/II) With or without brake/ground pairs
VFD Systems	Series V Series V-Flex	Oil resistant (Oil Res. I) Low capacitance for extended runs XLPE insulation for improved dielectric properties Excellent corona resistance Uniform geometry for reduced common-mode current
Motor Supply	Flexible Motor Supply	PVC jacket Oil resistant (Oil Res. I) Suited to light-duty flexing and VFD applications

## Cables you trust. Service you deserve.

Every application is critical and cable failure is not an option when the safety of equipment and personnel is paramount. Specify Alpha cable for rugged, reliable performance, since the integrity of your system is only as robust as the products you use.

## Custom cable is standard

Alpha Wire goes one step further: manufacturing custom cables to meet unique applications—offering specific conductor counts, shielding options, jacket materials, and versatile product designs. Our custom cable orders are often shipped in less than a week, once again giving you products with more convenience and less delay.

## Service and support, second-to-none

Selecting the correct cable for your critical application is essential to overall system reliability, performance, and safety. So we make it easy for you to select the right Alpha cable for your specific application. Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator to make it easy to select and get the cable you need. Can't find what you're looking for? Design the cable to your specification. It's easy, just visit **[www.alphawire.com](http://www.alphawire.com)**!

GLOBAL HEADQUARTERS  
1320 City Center Drive  
Suite 100  
Carmel, IN 46032 USA Toll  
Free: 1-800-52 ALPHA Tel:  
1-908-925-8000  
Fax: 1-908-925-5411  
E-mail: [info@alphawire.com](mailto:info@alphawire.com)

EUROPE  
Alpha Wire International  
Saxon House  
1 Downside | Sunbury-on-Thames  
Middlesex | United Kingdom | TW16 6RT  
Tel: 01 932 772 422  
Fax: 01 932 772 433  
E-mail: [europe@alphawire.com](mailto:europe@alphawire.com)

ASIA PACIFIC  
Alpha Wire  
Silver Center | Room 1712  
North Shanxi Road 1388  
Shanghai | China | 200060  
Tel: +86-21-61498201/61498205  
Fax: +86-21-61498001  
E-mail: [apac@alphawire.com](mailto:apac@alphawire.com)

