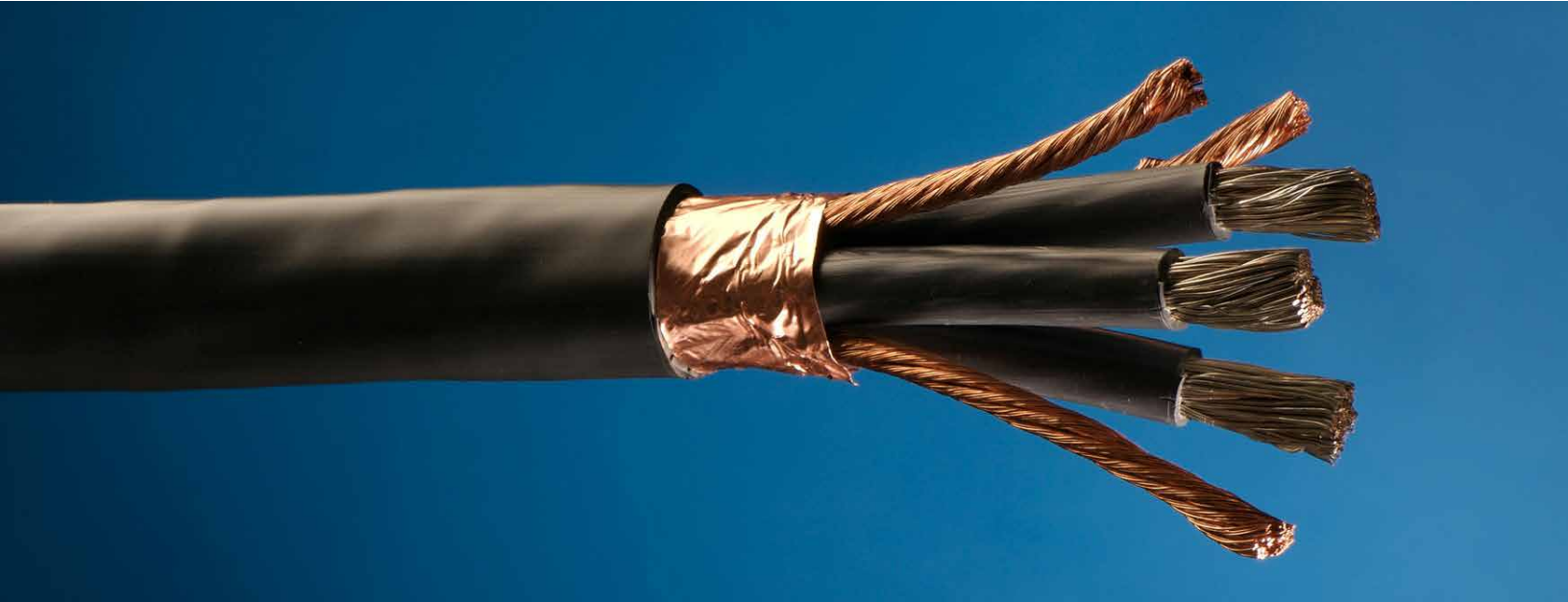


Industrial Automation Products



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Product Family	Product Line	General Application	Articulating	Conveyor	Delta	Gantry	Machine Tool
Industrial Series	Series F*	Continuous Flex Control	✓	✓		✓	✓
	Series P*	Stationary Control	✓	✓	✓	✓	✓
	Series SF*	Servo Power and Control	✓	✓	✓	✓	✓
	Series XM*	Continuous Flex Control	✓	✓		✓	✓
	Series V*	Variable Frequency Drive (VFD)		✓			✓
	Series V-Flex*	Flexible Variable Frequency Drive (VFD)		✓			✓
Xtra-Guard®	Xtra-Guard® 1	Stationary Control	✓	✓	✓	✓	✓
	Xtra-Guard® Flex	Continuous Flex Control	✓	✓		✓	✓
	Industrial Ethernet	Ethernet	✓	✓	✓	✓	✓
EcoGen®	EcoFlex®	Continuous Flex Control	✓	✓		✓	✓
	EcoFlex® PUR	Continuous Flex Control	✓	✓		✓	✓
Alpha Essentials	Data and Bus	Stationary Communication	✓	✓	✓	✓	✓
	Industrial Ethernet	Ethernet	✓	✓	✓	✓	✓
	Flexible Motor Supply*	Motor and Light Duty Drive		✓		✓	

*Products carry UL TC-ER rating.

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.

Exceptional Service

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.

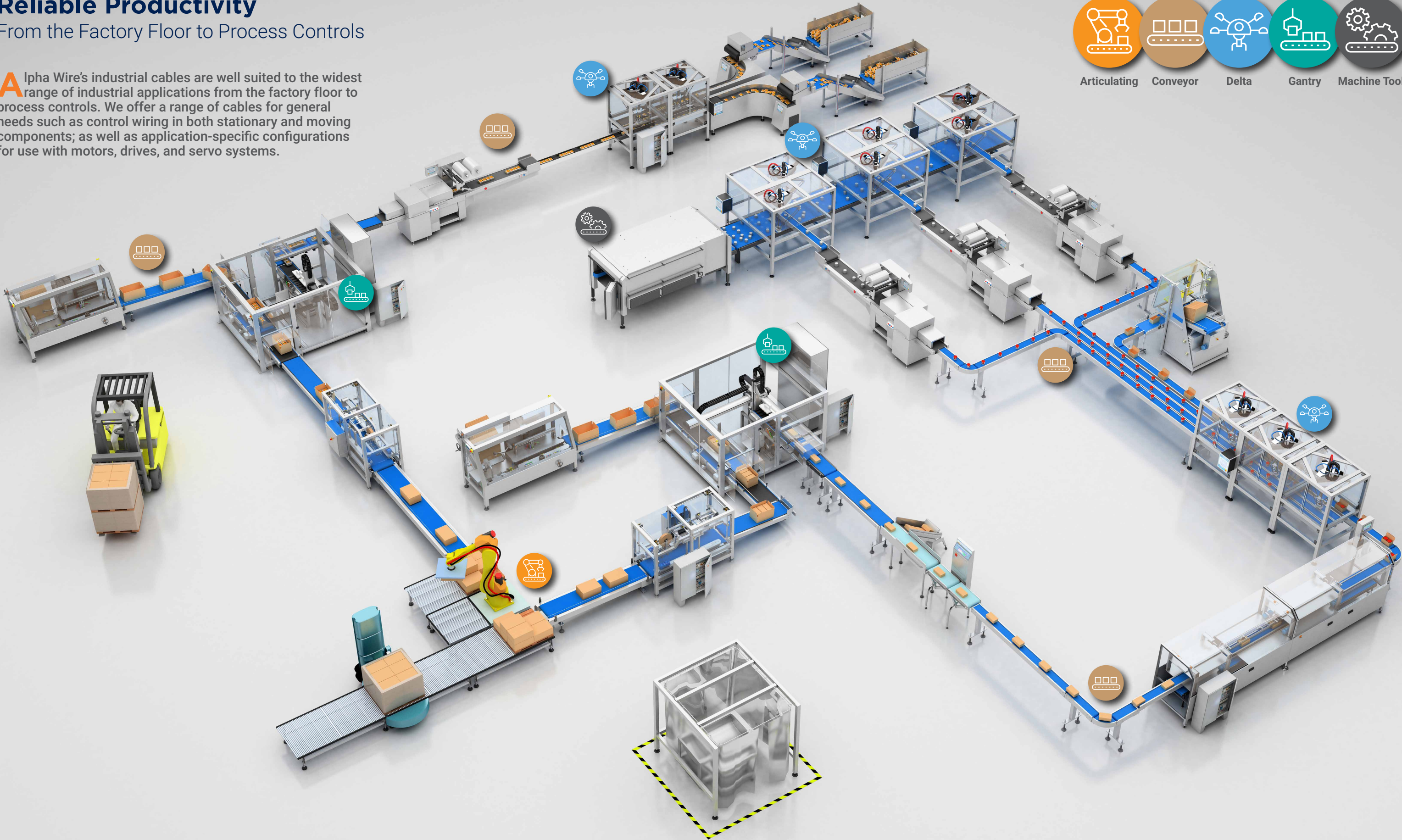
- Global availability
- Large in-stock inventory
- Flexible ordering, with small and large put-ups available
- Fast shipping—usually the same day
- 1500 distributor locations worldwide
- Engineering support
- Extensive online tools to select and specify cable
- Custom designs with online Cable Design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

Reliable Productivity

From the Factory Floor to Process Controls

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

- 
Articulating
- 
Conveyor
- 
Delta
- 
Gantry
- 
Machine Tool



Series F Continuous Flex Control

Maximum Flexibility for Demanding High-Flex Applications



Series F cables are our most flexible and robust control cables—providing reliable flexing day in and day out. Designed for a variety of flexing styles, they 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.



Features

Maximum flex life

TPE jacket for superior resistance to oils and chemicals

Finely stranded conductors and slipper agent on conductor insulation for superior high-speed flexing

Over 20 million rolling flex cycles

Tic-toc and twist tested per MIL-C-13777G

Materials

Conductors

Stranded bare copper

Insulation PVC/nylon

Jacket Black thermoplastic elastomer

Specifications

Conductors

Up to 65

Size Range

18 to 8 AWG (0.83 to 8.51 mm²)

Voltage

600V

Temperature Range

-25°C to +90°C (static)

-5°C to +90°C (dynamic)

Color coding

Black, blue, or red numbered conductors

One green/yellow

ground conductor

One white striped neutral (12 conductors or greater)

Approvals

Suitable for use Class I, Division 2 locations per Article 501 of the National Electric Code

- UL TC-ER
- UL PLTC
- UL TFFN/THHN
- UL Oil Res. I/II
- UL Sunlight Resistant
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant
- California Prop 65

SERIES F

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.			Cond.	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.			Cond.	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

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.			Cond.	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.			Cond.	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.			Cond.	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.			Cond.	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

Series M Control

Superior Oil and Chemical Resistance in a Rugged Cable for Stationary Applications



Series M cable meets the needs for stationary/cable tray and minimal flexing applications and where superior resistance to oils and chemicals is mandatory. Series M multiconductor cables offer superior performance in static applications, with a tough PVC/PVC-nylon jacket insulation and resistance to oils and chemicals found in most manufacturing environments. The TC/ER rating allows the cable to be run on overhead trays from control panels to machine centers.

Features

- Strong resistance to oils and chemicals
- Slipper agent design
- Abrasion resistant
- Direct burial

Materials

Conductors

Stranded bare copper

Insulation

PVC/nylon

Jacket

Slate PVC

Specifications

Conductors

Up to 65

Size Range

18 to 8 AWG (0.96 to 8.52 mm²)

Voltage

600V

Temperature Range

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

Color Coding

Black, blue, or red numbered conductors | One green/yellow ground conductor | One white striped neutral (12 conductors or greater)

Approvals

Suitable for use Class I, Division 2 locations per Article 501 of the National Electric Code

- UL TC-ER
- UL PLTC
- UL MTW
- UL WTTC
- UL Oil Res. I
- UL Sunlight Resistant
- UL Direct Burial
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant
- California Prop 65

18 AWG (0.96 mm²)

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

SERIES M

16 AWG (1.32 mm²)

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

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

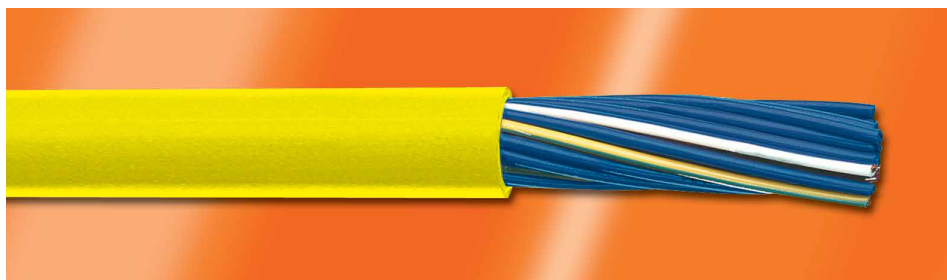
8 AWG (8.52 mm²)

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

Series P Enhanced Stationary Control

Superior Oil and Chemical Resistance in a Cable with Enhanced Routability and Flexibility for Stationary or Minimal Flex Applications



Series P cables combine the exceptional oil and chemical resistance of Series M cable with a specially formulated thermoplastic elastomer jacket for additional flexibility. This flexibility makes 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.

Features

Enhanced flexibility and routability

Superior resistance to oils and chemicals

Abrasion resistant

Materials

Conductors

Stranded bare copper

Insulation

PVC/nylon

Jacket

Yellow, orange, or black thermoplastic elastomer

Specifications

Conductors

Up to 65

Size Range

18 to 8 AWG (0.96 to 8.52 mm²)

Voltage

600V

Temperature Range

-25°C to +90°C

Color Coding

Black, blue, or red numbered conductors
One green/yellow ground conductor
One white striped neutral (12 conductors or greater)

Approvals

Suitable for use Class I, Division 2 locations per Article 501 of the National Electric Code

- UL TC-ER
- UL PLTC
- UL MTW
- UL TFFN/THHN
- UL Oil Res. I/II
- UL Sunlight Resistant
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant
- California Prop 65

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

SERIES P

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

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 Servo Control

Maximum Flexibility in Servo Power and Control



Series SF servo cables bring a new level of flexibility to the integration and monitoring of servo drives. 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. The cables are available in two configurations. The power cable has four conductors for power and ground. The composite cable adds two additional individually shielded twisted pairs for brake or temperature control.

Features

Easier routing and installation

Allows continuous flexing

Optional pairs for temperature and brake control

Materials

Conductors

Stranded tinned copper

Shielding coverage

Foil/Braid shielding:
aluminum/polyester foil and
tinned copper braid, 85%

Insulation

PVC/nylon

Jacket

Orange thermoplastic elastomer

Specifications

Conductors

4 power
4 power + 2 pairs for control

Size Range

18 to 8 AWG (0.96 to 8.50 mm²)

Voltage

600/1000 V

Temperature Range

-25°C to +90°C

Color Coding

One green/yellow ground conductor
Three black numbered conductors
Pairs – #1: Black-Red | #2: Black-White

Applications

- Machine tools
- Pick and place equipment
- Cartesian and articulated motion control
- Automated material handling systems

Approvals

Suitable for use Class I, Division 2 locations per Article 501 of the National Electric Code

- UL TC-ER
- UL WTTTC
- UL Oil Res. I/II
- UL Sunlight Resistant
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant

Flexible Power Servo Cable

4 conductors for power/ground

Part No.	Conductors	Wire Size		Stranding		Nominal Diameter		Jacket Thickness	
		AWG	mm ²	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 ²	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 XM Flexible Control

Tough PVC Cable for Continuous Flex Control Applications



Featuring a specially formulated, premium-grade PVC jacket and fine stranding, Series XM flexible control cable is the ideal choice for medium- to high-flex applications. Series XM offers a durable, oil-resistant construction that prevents contamination from hazardous fluids and protects against abrasion. Series XM is also available in shielded versions to address environments where EMI may be an issue.

Features

Specially formulated PVC jacket for continuous flex applications

Finely stranded conductors for better flexibility

PVC jacket and insulation resist moisture, oils, coolants, and UV radiation

Materials

Conductors

Stranded bare copper

Shielding

Tinned copper braid, 85% coverage, or unshielded

Insulation

PVC/nylon

Jacket

Black PVC

Specifications

Conductors

Up to 65

Size Range

18 to 8 AWG (1.32 to 13.49 mm²)

Voltage

600/1000 V

Temperature Range

-30°C to +90°C (static)

-5°C to +90°C (dynamic)

Color Coding

Black, blue, or red numbered conductors
One green/yellow ground conductor

Applications

- Continuous-flex applications
- High-speed pick-and-place robotic systems
- Automated material handling equipment
- Conveyors
- Transfer shuttles
- Flex track installations

Approvals

Meets NFPA Standard 79 for industrial machinery

- UL TC-ER
- UL MTW
- UL WTTC
- UL Oil Res. I
- UL Sunlight Resistant
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant
- California Prop 65

18 AWG (0.83 mm²)

41/34 (41 x 0.16 mm) Stranding

Part No. (Unshielded*)			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	0.486	12.34	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

*Braid shielded versions are available in constructions up to 49 conductors. To order a shielded version add "CY" to the end of the desired part number. We also offer custom configurations. To learn more, visit www.alphawire.com or call 800-52 ALPHA.

SERIES XM

16 AWG (1.31 mm²)

65/34 (65 x 0.16 mm) Stranding

Part No. (Unshielded*)			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 mm²)

105/34 (105 x 0.16 mm) Stranding

Part No. (Unshielded*)			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

12 AWG (3.38 mm²)

168/34 (168 x 0.16 mm) Stranding

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

10 AWG (5.32 mm²)

105/30 (105 x 0.25 mm) Stranding

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

8 AWG (8.51 mm²)

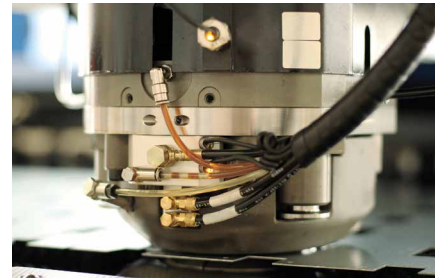
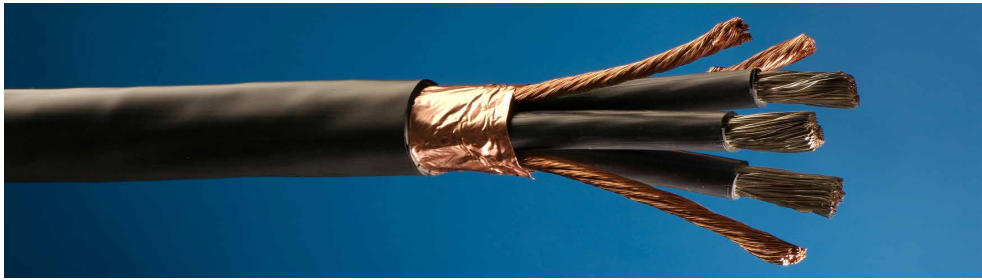
168/30 (168 x 0.25 mm) Stranding

Part No. (Unshielded*)			Conductors	Nominal Diameter		Jacket Thickness	
Red	Blue	Black		Inch	mm	Inch	mm
XM0803R	XM0803L	XM0803K	3	0.671	17.04	0.065	1.65
XM0804R	XM0804L	XM0804K	4	0.737	18.72	0.065	1.65

*Braid shielded versions are available in constructions up to 49 conductors. To order a shielded version add "CY" to the end of the desired part number. We also offer custom configurations. To learn more, visit www.alphawire.com or call 800-52 ALPHA.

Series V and V-Flex VFD

Exceptionally Consistent Performance for Variable-Speed Drives



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 features 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.

Features

Symmetrical geometry for uniform electrical properties

Low-capacitance construction for improved signal transmission and extended cable runs

Resists potential effects of harmonics, power distortion, and transient noise

Outstanding oil, solvent, chemical, and fuel resistance

Round geometry helps ensure a liquid-tight installation per IP67 or NEMA 6

Double shielded for superior EMI performance

Specially formulated XLPE conductor insulation will not degrade under heavy electrical load

Capable of handling the effects of wave reflections on long cable runs

Series V

Materials

Conductors

Stranded bare copper

Ground Wires

Stranded tinned copper

Insulation

PVC/nylon

Shielding

Aluminum/Polyester/Aluminum foil and tinned copper braid with 85% coverage; Double Foil

Jacket

PVC, black

Specifications

Conductors

3 or 4
Optional brake pair

Size Range

16 to 4/0 AWG (1.32 to 109mm²)

Voltage

600/1000 V

Temperature Range

-40°C to +90°C

Color Coding

Black with numbers and
One green or green/yellow
ground conductor

Bend Radius

8x to 10x

Approvals

Suitable for use Class I, Division
2 locations per Article 501 of
the National Electric Code

- UL TC-ER
- UL RHW-2/XHHW-2
- UL 1000 V Flexible Motor Supply
- UL Oil Res. I
- UL Sunlight Resistant
- UL Direct Burial
- CSA AWM I/II A/B FT4
- Pennsylvania MSHA
- CE Compliant
- RoHS Compliant
- CA Prop 65

Series V-Flex

Materials

Conductors

Stranded tinned copper

Ground Wires

Stranded tinned copper

Insulation

XLPE

Shielding

Aluminum/Polyester/Aluminum foil and
tinned copper braid with 85% coverage

Jacket

TPE, black

Specifications

Conductors

4

Size Range

16 to 4 AWG

Voltage

600/1000 V

Temperature Range

-40°C to +90°C

Color Coding

Black with numbers and
One green or green/yellow
ground conductor

Bend Radius

5x

Approvals

Suitable for use Class I, Division
2 locations per Article 501 of
the National Electric Code

- UL Standard 1277, Type TC-ER, 90°C, 600V
- CE-LVD: 2006/95/EC
- UL Sunlight Resistant
- UL Oil Res I/II
- UL Type XHHW-2 Wet/Dry
- UL Type RHW-2 Wet/Dry
- UL 1000 Volt Flexible Motor Supply Cable
- CSA FT4 Vertical Tray
- CSA CTC Control
- CSA TC
- CSA -40°C Cold Bend
- RoHS Compliant

SERIES V AND V-FLEX VFD CABLES

Three-Conductor VFD Cables

Part No.	Wire Size		Stranding		Shielding	Insulation Thickness		Jacket Thickness		Nominal Diameter	
	AWG	mm ²	AWG	mm		Inch	mm	Inch	mm	Inch	mm
V16316	16	1.32	26/30	26 x 0.25	Foil/Braid	0.046	1.17	0.050	1.27	0.468	11.89
V16314	14	2.09	41/30	41 x 0.25	Foil/Braid	0.046	1.17	0.065	1.65	0.538	13.67
V16312	12	3.31	65/30	65 x 0.25	Foil/Braid	0.046	1.17	0.065	1.65	0.578	14.68
V16310	10	5.37	105/30	105 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.642	16.31
V16308	8	8.53	133/29	133 x 0.28	Foil/Braid	0.061	1.55	0.065	1.65	0.798	20.27
V16306	6	13.57	133/27	133 x 0.36	Foil/Braid	0.061	1.55	0.085	2.16	0.924	23.47
V16304	4	21.58	133/25	133 x 0.45	Foil/Braid	0.061	1.55	0.085	2.16	1.050	26.67
V16302	2	34.32	133/23	133 x 0.57	Double Foil	0.061	1.55	0.085	2.16	1.157	29.39
V16001	1	43.28	133/22	133 x 0.64	Double Foil	0.056	1.42	0.085	2.16	1.197	30.48
V16000	1/0	54.58	133/21	133 x 0.72	Double Foil	0.056	1.42	0.085	2.16	1.294	32.77
V16020	2/0	68.85	133/20	133 x 0.81	Double Foil	0.056	1.42	0.085	2.16	1.399	35.56
V16030	3/0	86.9	133/19	133 x 0.91	Double Foil	0.056	1.42	0.085	2.16	1.517	38.53
V16040	4/0	109	133/18	133 x 1.02	Double Foil	0.056	1.42	0.085	2.16	1.653	41.98

Four-Conductor VFD Cable

Part No.	Wire Size		Stranding		Shielding	Insulation Thickness		Jacket Thickness		Nominal Diameter	
	AWG	mm ²	AWG	mm		Inch	mm	Inch	mm	Inch	mm
V16016	16	1.32	26/30	26 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.547	13.89
V16014	14	2.09	41/30	41 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.584	14.83
V16012	12	3.31	65/30	65 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.633	16.08
V16010	10	5.37	105/30	105 x 0.25	Foil/Braid	0.047	1.19	0.085	2.16	0.746	18.95
V16008	8	8.53	133/29	133 x 0.28	Foil/Braid	0.061	1.55	0.086	2.18	0.920	23.37
V16006	6	13.57	133/27	133 x 0.36	Foil/Braid	0.061	1.55	0.086	2.18	1.017	25.83
V16004	4	21.58	133/25	133 x 0.45	Foil/Braid	0.061	1.55	0.086	2.18	1.157	29.39
V16002	2	34.32	133/23	133 x 0.57	Foil/Braid	0.061	1.55	0.088	2.24	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 ²	AWG	mm		Inch	mm	Inch	mm	Inch	mm
V16116	16	1.32	26/30	26 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.717	18.21
V16114	14	2.09	41/30	41 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.743	18.87
V16112	12	3.31	65/30	65 x 0.25	Foil/Braid	0.047	1.19	0.065	1.65	0.785	19.94
V16110	10	5.37	105/30	105 x 0.25	Foil/Braid	0.047	1.19	0.085	2.16	0.875	22.23
V16108	8	8.53	133/29	133 x 0.28	Foil/Braid	0.061	1.55	0.085	2.16	1.032	26.21

Four-Conductor V-Flex VFD Cable

Part No.	Wire Size		Stranding		Shielding	Insulation Thickness		Jacket Thickness		Nominal Diameter	
	AWG	mm ²	AWG	mm		Inch	mm	Inch	mm	Inch	mm
VF16016	16	1.32	26/30	26 x 0.254	Foil/Braid	0.046	1.17	0.065	1.65	0.545	13.84
VF16014	14	2.08	41/30	41 x 0.254	Foil/Braid	0.046	1.17	0.065	1.65	0.584	14.83
VF16012	12	3.29	65/30	65 x 0.254	Foil/Braid	0.046	1.17	0.065	1.65	0.631	16.03
VF16010	10	5.32	105/30	105 x 0.254	Foil/Braid	0.047	1.19	0.085	2.16	0.750	19.05
VF16008	8	8.61	133/29	133 x 0.287	Foil/Braid	0.061	1.55	0.086	2.18	0.920	23.37
VF16006	6	13.60	133/27	133 x 0.361	Foil/Braid	0.061	1.55	0.086	2.18	1.017	25.83
VF16004	4	21.60	133/25	133 x 0.455	Foil/Braid	0.061	1.55	0.086	2.18	1.157	29.39



Rated for over 1 million flex life cycles, EcoFlex® is a fully recyclable compact cable that's up to 32% smaller and 55% lighter than PVC. By combining better performance and minimum environmental impact, EcoFlex® uses its mPPE insulation and jacketing to provide all of the advantages in a smaller, lighter flexible control cable.

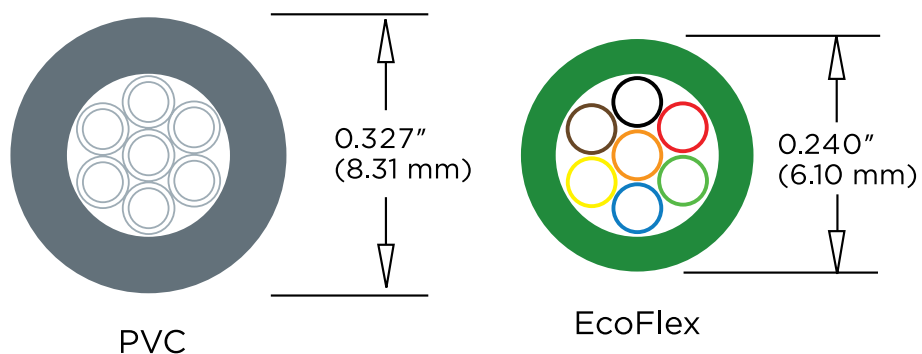
Features

Up to 32% smaller and 55% lighter than PVC

Up to 91% lower outgassing

Contains no halogens, PVC, phthalates, or heavy metals

Exceptional EMI performance with Supra-Shield® Foil/Braid



20 AWG (0.51 mm²) 7-Conductor Unshielded Cable

Materials

Conductors

Stranded tinned copper

Insulation

mPPE

Jacket

mPPE, Slate

Shielding

Unshielded, Braid,
Supra-Shield® Foil/Braid

Specifications

Voltage

600V

Bend Radius:

Unshielded: 5x

Temperature Range

-40°C to + 105°C

Conductor Color Coding

Chart D

Configurations

Unshielded multiconductor
Braid shielded multiconductor
Supra-Shield® Foil/Braid
shielded multiconductor
Custom configurations available

Approvals

- UL AWM 21819 (600V, 105°C)
- UL AWM 21492 (300V, 80°C)
- CE
- UL VW-1
- CSA AWM I/II A/B FT1
- IEC 60332-2 Flame Behavior
- RoHS
- REACH
- WEEE
- NFPA 79 Compliant
- ISO 10993-5

600V Light to Moderate Flex Control Up to 1 Million Flex Life Cycles

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79061	2	Unshielded	0.142	3.61
79062	3	Unshielded	0.147	3.73
79261	2	SupraShield® Foil/Braid	0.174	4.42
79262	3	SupraShield® Foil/Braid	0.179	4.55

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79056	2	Unshielded	0.150	3.81
79057	3	Unshielded	0.156	3.96
79058	4	Unshielded	0.166	4.22
79059	6	Unshielded	0.189	4.80
79060	8	Unshielded	0.216	5.49
79256	2	SupraShield® Foil/Braid	0.182	4.62
79257	3	SupraShield® Foil/Braid	0.188	4.78
79258	4	SupraShield® Foil/Braid	0.198	5.03
79259	6	SupraShield® Foil/Braid	0.221	5.61
79260	8	SupraShield® Foil/Braid	0.248	6.30

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79050	2	Unshielded	0.162	4.11
79051	3	Unshielded	0.169	4.29
79052	4	Unshielded	0.181	4.60
79053	6	Unshielded	0.207	5.26
79054	8	Unshielded	0.238	6.05
79055	10	Unshielded	0.257	6.53
79250	2	SupraShield® Foil/Braid	0.194	4.93
79251	3	SupraShield® Foil/Braid	0.201	5.11
79252	4	SupraShield® Foil/Braid	0.213	5.41
79253	6	SupraShield® Foil/Braid	0.239	6.07
79254	8	SupraShield® Foil/Braid	0.270	6.86
79255	10	SupraShield® Foil/Braid	0.289	7.34

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79044	2	Unshielded	0.176	4.47
79045	3	Unshielded	0.184	4.67
79046	4	Unshielded	0.198	5.03
79047	6	Unshielded	0.228	5.79
79048	8	Unshielded	0.264	6.71
79049	10	Unshielded	0.286	7.26
79244	2	SupraShield® Foil/Braid	0.208	5.28
79245	3	SupraShield® Foil/Braid	0.216	5.49
79246	4	SupraShield® Foil/Braid	0.230	5.84
79247	6	SupraShield® Foil/Braid	0.260	6.60
79248	8	SupraShield® Foil/Braid	0.296	7.52
79249	10	SupraShield® Foil/Braid	0.318	8.08

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79001	2	Unshielded	0.184	4.67
79002	3	Unshielded	0.193	4.90
79003	4	Unshielded	0.207	5.26
79004	5	Unshielded	0.224	5.69
79005	7	Unshielded	0.240	6.10
79006	9	Unshielded	0.296	7.52
79007	12	Unshielded	0.303	7.70
79008	18	Unshielded	0.349	8.86
79101	2	Braid	0.210	5.33
79102	3	Braid	0.219	5.56
79103	4	Braid	0.233	5.92
79104	5	Braid	0.250	6.35
79105	7	Braid	0.266	6.76
79106	9	Braid	0.321	8.15
79107	12	Braid	0.329	8.36
79108	18	Braid	0.376	9.55
79201	2	SupraShield® Foil/Braid	0.216	5.49
79202	3	SupraShield® Foil/Braid	0.225	5.72
79203	4	SupraShield® Foil/Braid	0.239	6.07
79204	5	SupraShield® Foil/Braid	0.256	6.50
79205	7	SupraShield® Foil/Braid	0.272	6.91
79206	9	SupraShield® Foil/Braid	0.328	8.33
79207	12	SupraShield® Foil/Braid	0.335	8.51
79208	18	SupraShield® Foil/Braid	0.382	9.70

600V Light to Moderate Flex Control Up to 1 Million Flex Life Cycles

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79010	2	Unshielded	0.208	5.28
79011	3	Unshielded	0.219	5.56
79012	4	Unshielded	0.236	5.99
79013	5	Unshielded	0.256	6.50
79014	7	Unshielded	0.277	7.04
79015	9	Unshielded	0.344	8.74
79016	12	Unshielded	0.353	8.97
79017	18	Unshielded	0.411	10.44
79109	2	Braid	0.236	5.99
79110	3	Braid	0.247	6.27
79111	4	Braid	0.264	6.71
79112	5	Braid	0.284	7.21
79113	7	Braid	0.305	7.75
79114	9	Braid	0.372	9.45
79115	12	Braid	0.381	9.68
79210	2	SupraShield® Foil/Braid	0.242	6.15
79211	3	SupraShield® Foil/Braid	0.253	6.43
79212	4	SupraShield® Foil/Braid	0.270	6.86
79213	5	SupraShield® Foil/Braid	0.290	7.37
79214	7	SupraShield® Foil/Braid	0.311	7.90
79215	9	SupraShield® Foil/Braid	0.378	9.60
79216	12	SupraShield® Foil/Braid	0.387	9.83
79217	18	SupraShield® Foil/Braid	0.445	11.30

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.035 (0.89 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79019	2	Unshielded	0.236	5.99
79020	3	Unshielded	0.249	6.32
79021	4	Unshielded	0.270	6.86
79022	5	Unshielded	0.294	7.47
79023	7	Unshielded	0.319	8.10
79024	9	Unshielded	0.400	10.16
79025	12	Unshielded	0.411	10.44
79026	18	Unshielded	0.481	12.22
79116	2	Braid	0.262	6.65
79117	3	Braid	0.275	6.98
79118	4	Braid	0.296	7.52
79119	5	Braid	0.320	8.13
79120	7	Braid	0.345	8.76
79218	2	SupraShield® Foil/Braid	0.268	6.81
79219	3	SupraShield® Foil/Braid	0.281	7.14
79220	4	SupraShield® Foil/Braid	0.302	7.67
79221	5	SupraShield® Foil/Braid	0.326	8.28
79222	7	SupraShield® Foil/Braid	0.351	8.92
79223	9	SupraShield® Foil/Braid	0.432	10.97
79224	12	SupraShield® Foil/Braid	0.443	11.25

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)
Jacket thickness: 0.035 (0.81 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79028	2	Unshielded	0.266	6.76
79029	3	Unshielded	0.281	7.14
79030	4	Unshielded	0.307	7.80
79031	5	Unshielded	0.335	8.51
79032	7	Unshielded	0.364	9.25
79033	9	Unshielded	0.459	11.66
79034	12	Unshielded	0.473	12.01
79035	18	Unshielded	0.556	14.12
79121	2	Braid	0.294	7.47
79122	3	Braid	0.309	7.85
79123	4	Braid	0.335	8.51
79124	5	Braid	0.363	9.22
79125	7	Braid	0.392	9.96
79225	2	SupraShield® Foil/Braid	0.300	7.62
79226	3	SupraShield® Foil/Braid	0.315	8.00
79227	4	SupraShield® Foil/Braid	0.341	8.66
79228	5	SupraShield® Foil/Braid	0.369	9.37
79229	7	SupraShield® Foil/Braid	0.398	10.11
79230	9	SupraShield® Foil/Braid	0.493	12.52
79231	12	SupraShield® Foil/Braid	0.507	12.88

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.012 (0.30 mm)
Jacket thickness: 0.035 (0.81 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79037	3	Unshielded	0.326	8.28
79038	4	Unshielded	0.358	9.09
79039	5	Unshielded	0.392	9.96
79040	7	Unshielded	0.428	10.87
79126	3	Braid	0.354	8.99
79127	4	Braid	0.386	9.80
79232	3	SupraShield® Foil/Braid	0.360	9.14
79233	4	SupraShield® Foil/Braid	0.391	9.93
79234	5	SupraShield® Foil/Braid	0.426	10.82
79235	7	SupraShield® Foil/Braid	0.462	11.73

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
Insulation thickness: 0.012 (0.30 mm)
Jacket thickness: 0.035 (0.81 mm)

Part No.	Conductors	Shielding	Nominal Diameter	
			Inch	mm
79041	3	Unshielded	0.380	9.65
79042	4	Unshielded	0.423	10.74
79043	5	Unshielded	0.465	11.81
79236	3	SupraShield® Foil/Braid	0.419	10.64
79237	4	SupraShield® Foil/Braid	0.457	11.61

EcoFlex® PUR

Rugged 600V Continuous Flex Cable



EcoFlex® PUR cable is abrasion, UV, and oil resistant with a tough, zero-halogen polyurethane jacket. It's up to 40% smaller and 44% lighter than other 600V continuous flex cables.

Features

Up to 40% smaller and 44% lighter

Rated for over 8 million flex cycles

Flexible at low temperatures

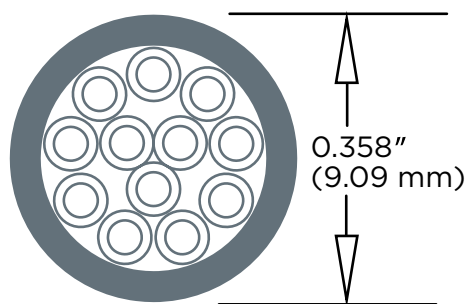
Unshielded or braid shielding

28 to 10 AWG

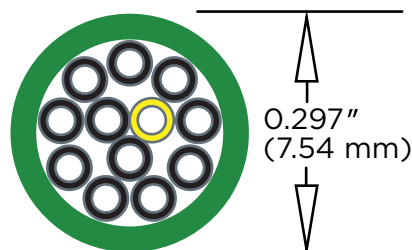
Zero halogen

Contains no heavy metals or phthalates

2 to 36 conductors



Traditional PUR Cable



EcoFlex PUR

20 AWG (0.523 mm²) 12-Conductor Unshielded Cable

Materials

Conductors

Finely stranded tinned copper
(IEC 60228 Conductors, Class 6)

Insulation

mPPE

Jacket

PUR, zero halogen, slate

Shielding

Unshielded

Tinned copper braid, 85% coverage

Specifications

Voltage

600V (UL)

Temperature Range

-40°C to + 80°C (dynamic)

-50°C to + 90°C (static)

Conductor Color Coding

Chart D | Chart KX

Black and numbered, with
one green/yellow

Configurations

Unshielded multiconductor

Braid shielded multiconductor

Custom configuration available

Approvals

- UL AWM 21959
(90°C /600 VRMS)
- UL Oil Res I
- UL Sunlight Resistant
- CSA AWM I/II A/B FT2
- IEC 60332-1 Flame Behavior
- IEC 60332-2 Flame Behavior
- IEC 60754-2 Acid
Gas Generation
- IEC 60228 Class 6
- EU Low Voltage Directive
2006/95/EC
- RoHS
- REACH

ECOFLEX® PUR

600V Multiconductor Up to 8 Million Flex Life Cycles

28 AWG (0.0925 mm²)

Stranding: 19/40 (19 x 0.079 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80001	2	D	Unshielded	0.032	0.81	0.140	3.56
80002	3	D	Unshielded	0.032	0.81	0.146	3.71
80101	2	D	Braid	0.032	0.81	0.168	4.27
80102	3	D	Braid	0.032	0.81	0.174	4.42

26 AWG (0.154 mm²)

Stranding: 19/38 (19 x 0.102 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80003	2	D	Unshielded	0.032	0.81	0.150	3.81
80004	3	D	Unshielded	0.032	0.81	0.156	3.96
80005	5	D	Unshielded	0.032	0.81	0.179	4.55
80006	7	D	Unshielded	0.032	0.81	0.192	4.88
80007	9	D	Unshielded	0.032	0.81	0.231	5.87
80103	2	D	Braid	0.032	0.81	0.178	4.52
80104	3	D	Braid	0.032	0.81	0.184	4.67
80105	4	D	Braid	0.032	0.81	0.196	4.98
80106	6	D	Braid	0.032	0.81	0.220	5.59
80107	8	D	Braid	0.032	0.81	0.246	6.25

24 AWG (0.241 mm²)

Stranding: 19/36 (19 x 0.127 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80008	2	KX	Unshielded	0.032	0.81	0.158	4.01
80009	3	KX	Unshielded	0.032	0.81	0.165	4.19
80010	5	KX	Unshielded	0.032	0.81	0.190	4.83
80011	7	KX	Unshielded	0.032	0.81	0.204	5.18
80012	9	KX	Unshielded	0.032	0.81	0.247	6.27
80013	10	KX	Unshielded	0.032	0.81	0.248	6.30
80108	2	KX	Braid	0.032	0.81	0.186	4.72
80109	3	KX	Braid	0.032	0.81	0.193	4.90
80110	5	KX	Braid	0.032	0.81	0.218	5.54
80111	7	KX	Braid	0.032	0.81	0.232	5.89
80112	9	KX	Braid	0.032	0.81	0.275	6.98
80113	10	KX	Braid	0.032	0.81	0.276	7.01

22 AWG (0.382 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80014	2	KX	Unshielded	0.032	0.81	0.172	4.37
80015	3	KX	Unshielded	0.032	0.81	0.180	4.57
80016	4	KX	Unshielded	0.032	0.81	0.195	4.95
80017	6	KX	Unshielded	0.032	0.81	0.225	5.72
80018	9	KX	Unshielded	0.032	0.81	0.275	6.98
80019	10	KX	Unshielded	0.032	0.81	0.276	7.01
80114	2	KX	Braid	0.032	0.81	0.200	5.08
80115	3	KX	Braid	0.032	0.81	0.208	5.28
80116	4	KX	Braid	0.032	0.81	0.223	5.66
80117	6	KX	Braid	0.032	0.81	0.253	6.43
80118	9	KX	Braid	0.032	0.81	0.303	7.70
80119	10	KX	Braid	0.032	0.81	0.304	7.72

20 AWG (0.523 mm²)

Stranding: 26/34 (26 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80020	2	KX	Unshielded	0.032	0.81	0.178	4.52
80021	3	KX	Unshielded	0.032	0.81	0.187	4.75
80022	5	KX	Unshielded	0.032	0.81	0.217	5.51
80023	6	KX	Unshielded	0.032	0.81	0.234	5.94
80024	7	KX	Unshielded	0.032	0.81	0.234	5.94
80025	9	KX	Unshielded	0.032	0.81	0.287	7.29
80026	12	KX	Unshielded	0.032	0.81	0.297	7.54
80027	18	KX	Unshielded	0.032	0.81	0.344	8.74
80028	20	KX	Unshielded	0.032	0.81	0.361	9.17
80029	25	KX	Unshielded	0.032	0.81	0.398	10.11
80030	30	KX	Unshielded	0.032	0.81	0.421	10.69
80031	36	KX	Unshielded	0.032	0.81	0.454	11.53
80120	2	KX	Braid	0.032	0.81	0.206	5.23
80121	3	KX	Braid	0.032	0.81	0.215	5.46
80122	5	KX	Braid	0.032	0.81	0.245	6.22
80123	6	KX	Braid	0.032	0.81	0.262	6.65
80124	7	KX	Braid	0.032	0.81	0.262	6.65
80125	9	KX	Braid	0.032	0.81	0.315	8.00
80126	12	KX	Braid	0.032	0.81	0.325	8.25
80127	18	KX	Braid	0.032	0.81	0.372	9.45
80128	20	KX	Braid	0.032	0.81	0.389	9.88
80129	25	KX	Braid	0.032	0.81	0.426	10.82
80130	30	KX	Braid	0.032	0.81	0.449	11.40
80131	36	KX	Braid	0.032	0.81	0.488	12.40

ECOFLEX® PUR

600V Multiconductor Up to 8 Million Flex Life Cycles

18 AWG (0.825 mm²)

Stranding: 41/34 (41 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80032	2	KX	Unshielded	0.032	0.81	0.202	5.13
80033	3	KX	Unshielded	0.032	0.81	0.213	5.41
80034	4	KX	Unshielded	0.032	0.81	0.231	5.87
80035	5	KX	Unshielded	0.032	0.81	0.250	6.35
80036	7	KX	Unshielded	0.032	0.81	0.271	6.88
80037	9	KX	Unshielded	0.032	0.81	0.334	8.48
80038	12	KX	Unshielded	0.032	0.81	0.347	8.81
80039	18	KX	Unshielded	0.032	0.81	0.405	10.29
80040	25	KX	Unshielded	0.032	0.81	0.470	11.94
80132	2	KX	Braid	0.053	0.81	0.223	5.66
80133	3	KX	Braid	0.032	0.81	0.241	6.12
80134	4	KX	Braid	0.032	0.81	0.259	6.58
80135	5	KX	Braid	0.032	0.81	0.278	7.06
80136	7	KX	Braid	0.032	0.81	0.299	7.59
80137	9	KX	Braid	0.032	0.81	0.362	9.19
80138	12	KX	Braid	0.032	0.81	0.375	9.53
80139	18	KX	Braid	0.032	0.81	0.433	11.00
80140	25	KX	Braid	0.032	0.81	0.504	12.80

16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)
Insulation thickness: 0.012 (0.30 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80041	2	KX	Unshielded	0.032	0.81	0.228	5.79
80042	3	KX	Unshielded	0.032	0.81	0.241	6.12
80043	4	KX	Unshielded	0.032	0.81	0.263	6.68
80044	5	KX	Unshielded	0.032	0.81	0.285	7.24
80045	7	KX	Unshielded	0.032	0.81	0.310	7.87
80046	9	KX	Unshielded	0.032	0.81	0.386	9.80
80047	12	KX	Unshielded	0.032	0.81	0.401	10.19
80048	18	KX	Unshielded	0.032	0.81	0.470	11.94
80049	25	KX	Unshielded	0.032	0.81	0.548	13.92
80050	36	KX	Unshielded	0.053	1.35	0.672	17.07
80141	2	KX	Braid	0.032	0.81	0.256	6.50
80142	3	KX	Braid	0.032	0.81	0.269	6.83
80143	4	KX	Braid	0.032	0.81	0.291	7.39
80144	5	KX	Braid	0.032	0.81	0.313	7.95
80145	7	KX	Braid	0.032	0.81	0.338	8.59
80146	9	KX	Braid	0.032	0.81	0.414	10.52
80147	12	KX	Braid	0.032	0.81	0.429	10.90
80148	18	KX	Braid	0.032	0.81	0.504	12.80
80149	25	KX	Braid	0.053	1.35	0.624	15.85
80050	36	KX	Braid	0.053	1.35	0.672	17.07

14 AWG (2.11 mm²)

Stranding: 105/34 (105 x 0.16 mm)
Insulation thickness: 0.013 (0.33 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80052	3	KX	Unshielded	0.032	0.81	0.275	6.98
80053	4	KX	Unshielded	0.032	0.81	0.301	7.65
80054	5	KX	Unshielded	0.032	0.81	0.329	8.36
80055	7	KX	Unshielded	0.032	0.81	0.358	9.09
80056	9	KX	Unshielded	0.032	0.81	0.449	11.40
80057	12	KX	Unshielded	0.032	0.81	0.467	11.86
80058	18	KX	Unshielded	0.032	0.81	0.550	13.97
80059	25	KX	Unshielded	0.053	1.35	0.686	17.42
80150	3	KX	Braid	0.032	0.81	0.303	7.70
80151	4	KX	Braid	0.032	0.81	0.329	8.36
80152	5	KX	Braid	0.032	0.81	0.357	9.07
80153	7	KX	Braid	0.032	0.81	0.386	9.80
80154	9	KX	Braid	0.032	0.81	0.483	12.27
80155	12	KX	Braid	0.032	0.81	0.501	12.73
80156	18	KX	Braid	0.053	1.35	0.626	15.90
80157	25	KX	Braid	0.053	1.35	0.727	18.47

12 AWG (3.38 mm²)

Stranding: 168/34 (168 x 0.16 mm)
Insulation thickness: 0.015 (0.38 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80060	3	KX	Unshielded	0.032	0.81	0.357	9.07
80061	4	KX	Unshielded	0.032	0.81	0.393	9.98
80062	5	KX	Unshielded	0.032	0.81	0.432	10.97
80063	7	KX	Unshielded	0.032	0.81	0.473	12.01
80064	9	KX	Unshielded	0.053	1.35	0.642	16.31
80158	3	KX	Braid	0.032	0.81	0.385	9.78
80159	4	KX	Braid	0.032	0.81	0.421	10.69
80160	5	KX	Braid	0.032	0.81	0.460	11.68
80161	7	KX	Braid	0.032	0.81	0.507	12.88
80162	9	KX	Braid	0.032	0.81	0.676	17.17

10 AWG (5.21 mm²)

Stranding: 259/34 (259 x 0.16 mm)
Insulation thickness: 0.020 (0.51 mm)

Part No.	Cond.	Color Code	Shielding	Jacket Thickness		Nominal Diameter	
				Inch	mm	Inch	mm
80065	3	KX	Unshielded	0.053	1.35	0.481	12.23
80066	4	KX	Unshielded	0.053	1.35	0.528	13.41
80067	5	KX	Unshielded	0.053	1.35	0.577	14.66
80068	7	KX	Unshielded	0.053	1.35	0.630	16.00
80163	3	KX	Braid	0.053	1.35	0.509	12.93
80164	4	KX	Braid	0.053	1.35	0.562	14.27
80165	5	KX	Braid	0.053	1.35	0.611	15.52
80166	7	KX	Braid	0.053	1.35	0.644	16.36

Xtra-Guard® 1

600V High Performance Enhanced PVC



Alpha Wire's Xtra-Guard® cable brings performance and reliability to the biggest challenges in the toughest environments. No matter what extremes your application faces, you'll find an Xtra-Guard cable that excels in meeting your requirements.

Hazard matched to survive in the most demanding operating conditions, Xtra-Guard® cable is the longest-lasting, highest-performing cable available. Field-proven application performance, year after year, has made Xtra-Guard® cable the first choice of engineers for more than three decades.

Jacket Colors

SLATE	BEIGE	WHITE
RED	BLACK	BLUE
GREEN	YELLOW	ORANGE

Features

- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- Premium-grade PVC insulation and jacket for easier cable routing in small spaces
- Nylon ripcord for easy jacket stripping
- Available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system

Materials

Conductors

Stranded tinned copper conductors

Insulation

Premium PVC

Jacket

Premium PVC jacket

Specifications

Voltage

600V

Temperature Range

-30°C to +105°C (AWM)
-30°C to +90°C (MTW)

Conductor Color Coding

Chart E

Jacket Colors

Nine available (slate standard)

Configurations

Unshielded, foil shielded, or Supra-Shield® Foil/Braid

Foil Shield

Aluminum/polyester foil shield, with 25% overlap and foil facing inward; Tinned copper drain wire sized the same as cable conductors

Supra-Shield Foil/Braid Shield

Aluminum/Polyester/Aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.

Applications

- EIA RS-232 interface
- High technology applications in controlled environments
- Point-of-sale equipment
- Computer peripherals
- Industrial process controls

Approvals

- UL CM
- UL AWM 2501 VW-1
- CSA AWM I/II A/B FT4
- UL MTW
- UL 60°C Oil (Oil Res. I)
- UL Sunlight Resistance
- IEC 60322-1 and -2 Flame Behavior
- UL VW-1
- UL 1685
- CSA FT-4 Flammability Rating

XTRA-GUARD® 1

600V Multiconductor

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Color Code	Shielding	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
5402	2	E	Unshielded	0.318	8.08	0.063	1.60
5404	4	E	Unshielded	0.358	9.09	0.063	1.60
5405	5	E	Unshielded	0.385	9.78	0.063	1.60
5409	9	E	Unshielded	0.473	12.01	0.063	1.60
5409/19	19	E	Unshielded	0.601	15.27	0.063	1.60
5410/2	2	E	Foil	0.322	8.18	0.063	1.60
5410/3	3	E	Foil	0.337	8.56	0.063	1.60
5410/4	4	E	Foil	0.362	9.19	0.063	1.60
5410/5	5	E	Foil	0.389	9.88	0.063	1.60
5410/9	9	E	Foil	0.477	12.12	0.063	1.60
5410/12	12	E	Foil	0.525	13.34	0.063	1.60
5504	4	E	SupraShield® Foil/Braid	0.386	9.80	0.063	1.60
5507	7	E	SupraShield® Foil/Braid	0.442	11.23	0.063	1.60
5509/12	12	E	SupraShield® Foil/Braid	0.549	13.94	0.063	1.60

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Color Code	Shielding	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
5413	3	E	Unshielded	0.350	8.89	0.063	1.60
5414	4	E	Unshielded	0.377	9.58	0.063	1.60
5419	9	E	Unshielded	0.503	12.78	0.063	1.60
5419/12	12	E	Unshielded	0.554	14.07	0.063	1.60
5419/15	15	E	Unshielded	0.601	15.27	0.063	1.60
5419/19	19	E	Unshielded	0.641	16.28	0.063	1.60
5419/25	25	E	Unshielded	0.742	18.85	0.063	1.60
5420/3	3	E	Foil	0.354	8.99	0.063	1.60
5420/4	4	E	Foil	0.381	9.68	0.063	1.60
5420/5	5	E	Foil	0.411	10.44	0.063	1.60
5420/7	7	E	Foil	0.442	11.23	0.063	1.60
5420/9	9	E	Foil	0.507	12.88	0.063	1.60
5420/12	12	E	Foil	0.558	14.17	0.063	1.60
5514	4	E	SupraShield® Foil/Braid	0.405	10.29	0.063	1.60
5517	7	E	SupraShield® Foil/Braid	0.466	11.84	0.063	1.60
5519	9	E	SupraShield® Foil/Braid	0.531	13.49	0.063	1.60
5519/12	12	E	SupraShield® Foil/Braid	0.582	14.78	0.063	1.60
5519/19	19	E	SupraShield® Foil/Braid	0.675	17.15	0.063	1.60

XTRA-GUARD® 1

600V Multiconductor

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Color Code	Shielding	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
5422	2	E	Unshielded	0.352	8.94	0.063	1.60
5423	3	E	Unshielded	0.369	9.37	0.063	1.60
5424	4	E	Unshielded	0.399	10.13	0.063	1.60
5425	5	E	Unshielded	0.432	10.97	0.063	1.60
5427	7	E	Unshielded	0.466	11.84	0.063	1.60
5429	9	E	Unshielded	0.535	13.59	0.063	1.60
5429/15	15	E	Unshielded	0.643	16.33	0.063	1.60
5429/19	19	E	Unshielded	0.686	17.42	0.063	1.60
5429/25	25	E	Unshielded	0.796	20.22	0.063	1.60
5430/2	2	E	Foil	0.356	9.04	0.063	1.60
5430/3	3	E	Foil	0.373	9.47	0.063	1.60
5430/4	4	E	Foil	0.403	10.24	0.063	1.60
5430/5	5	E	Foil	0.436	11.07	0.063	1.60
5430/7	7	E	Foil	0.470	11.94	0.063	1.60
5430/9	9	E	Foil	0.539	13.69	0.063	1.60
5430/12	12	E	Foil	0.595	15.11	0.063	1.60
5430/15	15	E	Foil	0.647	16.43	0.063	1.60
5430/19	19	E	Foil	0.690	17.53	0.063	1.60
5430/25	25	E	Foil	0.800	20.32	0.063	1.60
5522	2	E	SupraShield® Foil/Braid	0.380	9.65	0.063	1.60
5523	3	E	SupraShield® Foil/Braid	0.397	10.08	0.063	1.60
5524	4	E	SupraShield® Foil/Braid	0.427	10.85	0.063	1.60
5525	5	E	SupraShield® Foil/Braid	0.460	11.68	0.063	1.60
5527	7	E	SupraShield® Foil/Braid	0.494	12.55	0.063	1.60
5529	9	E	SupraShield® Foil/Braid	0.563	14.30	0.063	1.60
5529/12	12	E	SupraShield® Foil/Braid	0.619	15.72	0.063	1.60
5529/15	15	E	SupraShield® Foil/Braid	0.677	17.20	0.063	1.60
5529/19	19	E	SupraShield® Foil/Braid	0.760	19.30	0.083	2.11

XTRA-GUARD® 1

600V Multiconductor

16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Color Code	Shielding	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
5434	4	E	Unshielded	0.428	10.87	0.063	1.60
5435	5	E	Unshielded	0.464	11.79	0.063	1.60
5437	7	E	Unshielded	0.502	12.75	0.063	1.60
5439	9	E	Unshielded	0.579	14.71	0.063	1.60
5439/12	12	E	Unshielded	0.641	16.28	0.063	1.60
5439/15	15	E	Unshielded	0.698	17.73	0.063	1.60
5439/19	19	E	Unshielded	0.746	18.95	0.063	1.60
5439/25	25	E	Unshielded	0.908	23.06	0.083	2.11
5440/2	2	E	Foil	0.380	9.65	0.063	1.60
5440/3	3	E	Foil	0.399	10.13	0.063	1.60
5440/4	4	E	Foil	0.432	10.97	0.063	1.60
5440/5	5	E	Foil	0.468	11.89	0.063	1.60
5440/7	7	E	Foil	0.506	12.85	0.063	1.60
5440/9	9	E	Foil	0.583	14.81	0.063	1.60
5440/12	12	E	Foil	0.645	16.38	0.063	1.60
5440/15	15	E	Foil	0.702	17.83	0.063	1.60
5532	2	E	SupraShield® Foil/Braid	0.404	10.26	0.063	1.60
5533	3	E	SupraShield® Foil/Braid	0.423	10.74	0.063	1.60
5534	4	E	SupraShield® Foil/Braid	0.456	11.58	0.063	1.60
5535	5	E	SupraShield® Foil/Braid	0.492	12.50	0.063	1.60
5537	7	E	SupraShield® Foil/Braid	0.530	13.46	0.063	1.60
5539	9	E	SupraShield® Foil/Braid	0.607	15.42	0.063	1.60
5539/12	12	E	SupraShield® Foil/Braid	0.675	17.15	0.063	1.60
5539/15	15	E	SupraShield® Foil/Braid	0.772	19.61	0.083	2.11
5539/19	19	E	SupraShield® Foil/Braid	0.820	20.83	0.083	2.11

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part Number	Conductors	Color Code	Shielding	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
5442	2	E	Unshielded	0.398	10.11	0.063	1.60
5443	3	E	Unshielded	0.419	10.64	0.063	1.60
5444	4	E	Unshielded	0.494	12.55	0.063	1.60
5445	5	E	Unshielded	0.535	13.59	0.063	1.60
5447	7	E	Unshielded	0.535	13.59	0.063	1.60
5449	9	E	Unshielded	0.620	15.75	0.063	1.60
5449/12	12	E	Unshielded	0.749	19.02	0.063	1.60
5449/15	15	E	Unshielded	0.749	19.02	0.063	1.60
5449/25	25	E	Unshielded	0.974	24.74	0.083	2.11
5450/2	2	E	Foil	0.402	10.21	0.063	1.60
5450/3	3	E	Foil	0.423	10.74	0.063	1.60
5450/4	4	E	Foil	0.459	11.66	0.063	1.60
5450/5	5	E	Foil	0.498	12.65	0.063	1.60
5450/7	7	E	Foil	0.539	13.69	0.063	1.60
5450/12	12	E	Foil	0.691	17.96	0.063	1.60
5542	2	E	SupraShield® Foil/Braid	0.426	10.82	0.063	1.60
5543	3	E	SupraShield® Foil/Braid	0.447	11.35	0.063	1.60
5544	4	E	SupraShield® Foil/Braid	0.483	12.27	0.063	1.60
5547	7	E	SupraShield® Foil/Braid	0.563	14.30	0.063	1.60
5549	9	E	SupraShield® Foil/Braid	0.648	16.46	0.063	1.60
5549/12	12	E	SupraShield® Foil/Braid	0.761	19.33	0.083	2.11
5549/15	15	E	SupraShield® Foil/Braid	0.823	20.90	0.083	2.11

Xtra-Guard® Flex

High-Performance Flexing Applications



Xtra-Guard® Flex offers a wide range of flexing cables, from light flexing to continuous multiaxis flexing. These long-lasting cables are designed to provide excellent performance in high-flex, high-torsion, and continuous-flex applications, such as motion control and robotics. With the range of choices, it's easy to select the cable matched to the demands of your application.

	Standard Flex (65000 Series)	Continuous Flex Control (85000 Series)	Continuous Flex Data (86000 Series)	Torsional Flex (87000 Series)
Flex Cycles (million)	1	14	6	1
Configurations	Multiconductor	Multiconductor	Multiconductor Multipair	Multiconductor
Conductors	Bare copper	Tin-plated copper	Tin-plated copper	Bare copper
Insulation	Lub. SR-PVC	Lub. PVC	Lub. SR-PVC	TPE
Jacket	PVC	PVC	PVC	PUR
Shielding Options	Unshielded Braid	Unshielded Braid	Unshielded Foil/Braid	Unshielded Spiral
Conductor Color Coding	Numbered black 1 green/yellow Slate jacket	Numbered red 1 green/yellow Black jacket	Multicolored Color Codes A & D Slate jacket	Numbered black 1 green/yellow Slate jacket
Voltage	600V	600V	300V	600V
Temperature Range Flexing	-5°C to +90°C	-5°C to +90°C	+5°C to +105°C	-10°C to +80°C
Temperature Range Stationary	-40°C to +90°C	-40°C to +90°C	-10°C to +105°C	-30°C to +80°C
Approvals	UL AWM 2587 CE CSA AWM I/II A/B FT1	UL AWM 2587 CE CSA AWM I/II A/B FT1	UL CM UL AWM 2661 CE CSA AWM I/II A/B FT4 CSA CMG	UL AWM 20234 CE CSA AWM I/II A/B FT1

XTRA-GUARD® STANDARD FLEX CONTROL CABLE

Light to Moderate Flex Applications Up to 1 Million Flex Life Cycles

600V Multiconductor

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
652602	2	Unshielded	0.202	5.13	0.035	0.89
652603	3	Unshielded	0.212	5.38	0.035	0.89
652604	4	Unshielded	0.229	5.82	0.035	0.89
652605	5	Unshielded	0.256	6.50	0.038	0.97
652607	7	Unshielded	0.272	6.91	0.038	0.97
652609	9	Unshielded	0.344	8.74	0.040	1.02
652612	12	Unshielded	0.348	8.84	0.040	1.02
65263CY	3	Braid	0.300	7.62	0.035	0.89
65264CY	4	Braid	0.317	8.05	0.035	0.89
65265CY	5	Braid	0.335	8.51	0.035	0.89
65267CY	7	Braid	0.354	8.99	0.035	0.89
652612CY	12	Braid	0.440	11.18	0.040	1.02

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
652402	2	Unshielded	0.212	5.38	0.035	0.89
652403	3	Unshielded	0.223	5.66	0.035	0.89
652404	4	Unshielded	0.241	6.12	0.035	0.89
652405	5	Unshielded	0.270	6.86	0.038	0.97
652407	7	Unshielded	0.288	7.32	0.038	0.97
652409	9	Unshielded	0.364	9.25	0.040	1.02
652412	12	Unshielded	0.369	9.37	0.040	1.02
652418	18	Unshielded	0.442	11.23	0.045	1.14
652425	25	Unshielded	0.525	13.34	0.050	1.27
65243CY	3	Braid	0.311	7.90	0.035	0.89
65244CY	4	Braid	0.329	8.36	0.035	0.89
65245CY	5	Braid	0.349	8.86	0.035	0.89
65247CY	7	Braid	0.370	9.40	0.035	0.89
652412CY	12	Braid	0.461	11.71	0.040	1.02
652418CY	18	Braid	0.526	13.36	0.040	1.02
652425CY	25	Braid	0.629	15.98	0.050	1.27

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
652202	2	Unshielded	0.224	5.69	0.035	0.89
652203	3	Unshielded	0.236	5.99	0.035	0.89
652204	4	Unshielded	0.255	6.45	0.035	0.89
652205	5	Unshielded	0.286	7.26	0.038	0.97
652207	7	Unshielded	0.306	7.77	0.038	0.97
652209	9	Unshielded	0.394	10.01	0.043	1.09
65223CY	3	Braid	0.324	8.23	0.035	0.89
65224CY	4	Braid	0.343	8.71	0.035	0.89
65225CY	5	Braid	0.365	9.27	0.035	0.89
65227CY	7	Braid	0.388	9.86	0.035	0.89

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65002	2	Unshielded	0.238	6.05	0.035	0.89
65003	3	Unshielded	0.251	6.38	0.035	0.89
65004	4	Unshielded	0.272	6.91	0.035	0.89
65005	5	Unshielded	0.305	7.75	0.038	0.97
65007	7	Unshielded	0.327	8.31	0.038	0.97
65009	9	Unshielded	0.416	10.57	0.040	1.02
65012	12	Unshielded	0.433	11.00	0.045	1.14
65018	18	Unshielded	0.527	13.39	0.055	1.40
65025	25	Unshielded	0.615	15.62	0.055	1.40
65003CY	3	Braid	0.339	8.61	0.035	0.89
65007CY	7	Braid	0.409	10.39	0.035	0.89
65012CY	12	Braid	0.521	13.23	0.040	1.02
65025CY	25	Braid	0.716	18.17	0.050	1.27

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65802	2	Unshielded	0.258	6.55	0.035	0.89
65803	3	Unshielded	0.272	6.91	0.035	0.89
65804	4	Unshielded	0.296	7.52	0.035	0.89
65805	5	Unshielded	0.326	8.28	0.035	0.89
65807	7	Unshielded	0.351	8.92	0.035	0.89
65809	9	Unshielded	0.445	11.30	0.035	0.89
65812	12	Unshielded	0.470	11.94	0.043	1.09
65818	18	Unshielded	0.567	14.40	0.050	1.27
65825	25	Unshielded	0.666	16.92	0.050	1.27
65834	34	Unshielded	0.769	19.53	0.060	1.52
65841	41	Unshielded	0.835	21.21	0.063	1.60
65850	50	Unshielded	0.967	24.56	0.083	2.11
65803CY	3	Braid	0.360	9.14	0.035	0.89
65804CY	4	Braid	0.384	9.75	0.035	0.89
65805CY	5	Braid	0.414	10.52	0.035	0.89
65807CY	7	Braid	0.439	11.15	0.035	0.89
65812CY	12	Braid	0.568	14.43	0.045	1.14
65818CY	18	Braid	0.671	17.04	0.053	1.35
65825CY	25	Braid	0.776	19.71	0.053	1.35

XTRA-GUARD® STANDARD FLEX CONTROL CABLE

Light to Moderate Flex Applications Up to 1 Million Flex Life Cycles

600V Multiconductor

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65602	2	Unshielded	0.284	7.21	0.035	0.89
65603	3	Unshielded	0.300	7.62	0.035	0.89
65604	4	Unshielded	0.328	8.33	0.035	0.89
65605	5	Unshielded	0.361	9.17	0.035	0.89
65607	7	Unshielded	0.390	9.91	0.035	0.89
65609	9	Unshielded	0.509	12.93	0.041	1.04
65612	12	Unshielded	0.536	13.61	0.049	1.24
65618	18	Unshielded	0.632	16.05	0.050	1.27
65625	25	Unshielded	0.756	19.20	0.055	1.40
65641	41	Unshielded	0.959	24.36	0.075	1.90
65650	50	Unshielded	1.079	27.41	0.083	2.11
65603CY	3	Braid	0.388	9.86	0.035	0.89
65604CY	4	Braid	0.416	10.57	0.035	0.89
65605CY	5	Braid	0.449	11.40	0.035	0.89
65607CY	7	Braid	0.484	12.29	0.035	0.89
65612CY	12	Braid	0.640	16.26	0.052	1.32
65618CY	18	Braid	0.767	19.48	0.062	1.57
65625CY	25	Braid	0.901	22.89	0.067	1.70

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65402	2	Unshielded	0.330	8.38	0.044	1.12
65403	3	Unshielded	0.351	8.92	0.045	1.14
65404	4	Unshielded	0.404	10.26	0.055	1.40
65405	5	Unshielded	0.439	11.15	0.055	1.40
65407	7	Unshielded	0.479	12.17	0.058	1.47
65409	9	Unshielded	0.609	15.47	0.063	1.60
65412	12	Unshielded	0.667	16.94	0.085	2.16
65418	18	Unshielded	0.783	19.89	0.090	2.29
65425	25	Unshielded	0.953	24.21	0.110	2.79
65403CY	3	Braid	0.443	11.25	0.042	1.07
65404CY	4	Braid	0.486	12.34	0.047	1.19
65405CY	5	Braid	0.537	13.64	0.052	1.32
65407CY	7	Braid	0.581	14.76	0.057	1.45
65412CY	12	Braid	0.732	18.59	0.062	1.57
65418CY	18	Braid	0.890	22.61	0.083	2.11

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65203	3	Unshielded	0.436	11.07	0.067	1.70
65204	4	Unshielded	0.500	12.70	0.080	2.03
65205	5	Unshielded	0.553	14.05	0.086	2.18
65207	7	Unshielded	0.592	15.04	0.086	2.18
65203CY	3	Braid	0.530	13.46	0.060	1.52
65204CY	4	Braid	0.616	15.65	0.066	1.68
65205CY	5	Braid	0.671	17.04	0.073	1.85

10 AWG (5.32 mm²)

Stranding: 105/30 (105 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65103	3	Unshielded	0.516	13.11	0.080	2.03
65104	4	Unshielded	0.568	14.43	0.084	2.13
65105	5	Unshielded	0.629	15.98	0.090	2.29
65103CY	3	Braid	0.630	16.00	0.070	1.78
65104CY	4	Braid	0.684	17.37	0.070	1.78
65105CY	5	Braid	0.757	19.23	0.077	1.96
65107CY	7	Braid	0.823	20.90	0.083	2.11

8 AWG (8.32 mm²)

Stranding: 65/26 (65 x 0.40 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65904	4	Unshielded	0.691	17.55	0.085	2.16
65905	5	Unshielded	0.765	19.43	0.090	2.29
65904CY	4	Braid	0.822	20.88	0.075	1.90

6 AWG (13.44 mm²)

Stranding: 105/26 (105 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65704	4	Unshielded	0.891	22.63	0.100	2.54
65705	5	Unshielded	0.985	25.02	0.105	2.67
65704CY	4	Braid	1.062	26.97	0.100	2.54

4 AWG (21.5 mm²)

Stranding: 168/26 (168 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65504	4	Unshielded	1.080	27.43	0.100	2.54
65505	5	Unshielded	1.207	30.66	0.110	2.79
65504CY	4	Braid	1.251	31.78	0.100	2.54

2 AWG (34.05 mm²)

Stranding: 266/26 (266 x 0.40 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
65304	4	Unshielded	1.273	32.33	0.120	3.05
65305	5	Unshielded	1.428	36.27	0.135	3.43
65304CY	4	Braid	1.453	36.91	0.110	2.79

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26 AWG (0.14 mm²)

Stranding: 19/38 (19 x 0.10)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
852603	3	Unshielded	0.229	5.82	0.035	0.89
852604	4	Unshielded	0.248	6.30	0.035	0.89
852605	5	Unshielded	0.268	6.81	0.035	0.89
852607	7	Unshielded	0.311	7.90	0.035	0.89
852610	10	Unshielded	0.347	8.81	0.035	0.89
85263CY	3	Braid	0.307	7.80	0.035	0.89
85264CY	4	Braid	0.326	8.28	0.035	0.89
85265CY	5	Braid	0.356	9.04	0.040	1.02
85267CY	7	Braid	0.409	10.39	0.040	1.02
852610CY	10	Braid	0.456	11.58	0.040	1.02

24 AWG (0.23 mm²)

Stranding: 19/36 (19 x 0.13)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
852403	3	Unshielded	0.240	6.10	0.035	0.89
852404	4	Unshielded	0.260	6.60	0.035	0.89
852405	5	Unshielded	0.282	7.16	0.035	0.89
852407	7	Unshielded	0.328	8.33	0.035	0.89
852410	10	Unshielded	0.377	9.58	0.040	1.02
85243CY	3	Braid	0.318	8.08	0.035	0.89
85244CY	4	Braid	0.338	8.59	0.035	0.89
85245CY	5	Braid	0.370	9.40	0.040	1.02
85247CY	7	Braid	0.432	10.97	0.040	1.02
852410CY	10	Braid	0.483	12.27	0.040	1.02

22 AWG (0.35 mm²)

Stranding: 41/38 (41 x 0.10)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
852203	3	Unshielded	0.251	6.38	0.035	0.89
852204	4	Unshielded	0.272	6.91	0.035	0.89
852205	5	Unshielded	0.295	7.49	0.035	0.89
852207	7	Unshielded	0.344	8.74	0.035	0.89
852210	10	Unshielded	0.397	10.08	0.040	1.02
85223CY	3	Braid	0.329	8.36	0.035	0.89
85224CY	4	Braid	0.350	8.89	0.035	0.89
85225CY	5	Braid	0.383	9.73	0.040	1.02
85227CY	7	Braid	0.448	11.38	0.040	1.02
852210CY	10	Braid	0.503	12.78	0.040	1.02

20 AWG (0.51 mm²)

Stranding: 63/38 (63 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85003	3	Unshielded	0.272	6.91	0.035	0.89
85004	4	Unshielded	0.297	7.54	0.035	0.89
85005	5	Unshielded	0.323	8.20	0.035	0.89
85007	7	Unshielded	0.388	9.86	0.040	1.02
85012	12	Unshielded	0.460	11.68	0.045	1.14
85018	18	Unshielded	0.548	13.92	0.050	1.27
85025	25	Unshielded	0.691	17.55	0.065	1.65
85034	34	Unshielded	0.746	18.95	0.065	1.65
85003CY	3	Braid	0.350	8.89	0.035	0.89
85004CY	4	Braid	0.375	9.53	0.035	0.89
85005CY	5	Braid	0.411	10.44	0.040	1.02
85007CY	7	Braid	0.482	12.24	0.040	1.02
85010CY	10	Braid	0.545	13.84	0.040	1.02
85012CY	12	Braid	0.564	14.33	0.050	1.27
85018CY	18	Braid	0.662	16.81	0.060	1.52
85025CY	25	Braid	0.812	20.62	0.070	1.78

18 AWG (0.85 mm²)

Stranding: 105/38 (105 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85803	3	Unshielded	0.298	7.57	0.035	0.89
85804	4	Unshielded	0.326	8.28	0.035	0.89
85805	5	Unshielded	0.355	9.02	0.035	0.89
85807	7	Unshielded	0.438	11.13	0.045	1.14
85812	12	Unshielded	0.520	13.21	0.050	1.27
85815	15	Unshielded	0.577	14.66	0.050	1.27
85818	18	Unshielded	0.608	15.44	0.050	1.27
85825	25	Unshielded	0.767	19.48	0.065	1.65
85834	34	Unshielded	0.830	21.08	0.065	1.65
85803CY	3	Braid	0.376	9.55	0.035	0.89
85804CY	4	Braid	0.414	10.52	0.040	1.02
85805CY	5	Braid	0.453	11.51	0.040	1.02
85807CY	7	Braid	0.532	13.51	0.045	1.14
85812CY	12	Braid	0.634	16.10	0.060	1.52
85818CY	18	Braid	0.729	18.52	0.060	1.52
85825CY	25	Braid	0.908	23.06	0.080	2.03

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16 AWG (1.36 mm²)

Stranding: 168/38 (168 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85603	3	Unshielded	0.331	8.41	0.035	0.89
85604	4	Unshielded	0.362	9.19	0.035	0.89
85605	5	Unshielded	0.396	10.06	0.035	0.89
85607	7	Unshielded	0.478	12.14	0.040	1.02
85612	12	Unshielded	0.573	14.55	0.045	1.14
85618	18	Unshielded	0.674	17.12	0.045	1.14
85625	25	Unshielded	0.862	21.89	0.065	1.65
85634	34	Unshielded	0.936	23.77	0.065	1.65
85650	50	Unshielded	1.161	29.49	0.085	2.16
85603CY	3	Braid	0.419	10.64	0.035	0.89
85604CY	4	Braid	0.460	11.68	0.040	1.02
85605CY	5	Braid	0.500	12.70	0.040	1.02
85607CY	7	Braid	0.602	15.29	0.055	1.40
85612CY	12	Braid	0.690	17.53	0.060	1.52
85615CY	15	Braid	0.769	19.53	0.060	1.52
85618CY	18	Braid	0.805	20.45	0.060	1.52
85625CY	25	Braid	0.973	24.71	0.065	1.65
85634CY	34	Braid	1.087	27.61	0.085	2.16

14 AWG (2.16 mm²)

Stranding: 266/38 (266 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85404	4	Unshielded	0.424	10.77	0.050	1.27
85407	7	Unshielded	0.582	14.78	0.070	1.78
85404CY	4	Braid	0.528	13.41	0.050	1.27
85407CY	7	Braid	0.676	17.17	0.065	1.65

12 AWG (3.35 mm²)

Stranding: 413/38 (413 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85204	4	Unshielded	0.527	13.39	0.070	1.78
85207	7	Unshielded	0.729	18.52	0.100	2.54
85204CY	4	Braid	0.641	16.28	0.075	1.90
85207CY	7	Braid	0.840	21.34	0.100	2.54

10 AWG (5.34 mm²)

Stranding: 658/38 (658 x 0.10 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85104	4	Unshielded	0.590	14.99	0.070	1.78
85107	7	Unshielded	0.816	20.73	0.100	2.54
85104CY	4	Braid	0.704	17.88	0.070	1.78
85107CY	7	Braid	0.947	24.05	0.100	2.54

8 AWG (8.62 mm²)

Stranding: 266/32 (266 x 0.20 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85904	4	Unshielded	0.721	18.31	0.070	1.78
85904CY	4	Braid	0.882	22.40	0.085	2.16

6 AWG (13.38 mm²)

Stranding: 413/32 (413 x 0.20 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85704	4	Unshielded	0.935	23.75	0.085	2.16
85704CY	4	Braid	1.066	27.08	0.085	2.16

4 AWG (21.55 mm²)

Stranding: 665/32 (665 x 0.20 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85504	4	Unshielded	1.076	27.33	0.085	2.16
85504CY	4	Braid	1.227	31.17	0.085	2.16

2 AWG (33.86 mm²)

Stranding: 1045/32 (1045 x 0.20 mm)
Insulation thickness: 0.047 (1.19 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
85304	4	Unshielded	1.250	31.75	0.085	2.16
85304CY	4	Braid	1.431	36.35	0.095	2.41

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28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
86002	2	Unshielded	D	0.154	3.91	0.040	1.02
86003	3	Unshielded	D	0.160	4.06	0.040	1.02
86004	4	Unshielded	D	0.170	4.32	0.040	1.02
86005	5	Unshielded	D	0.180	4.57	0.040	1.02
86007	7	Unshielded	D	0.203	5.16	0.040	1.02
86012	12	Unshielded	D	0.263	6.68	0.040	1.02
86018	18	Unshielded	D	0.262	6.65	0.040	1.02
86025	25	Unshielded	D	0.309	7.85	0.040	1.02
86002CY	2	Foil/Spiral	D	0.174	4.42	0.040	1.02
86003CY	3	Foil/Spiral	D	0.180	4.57	0.040	1.02
86004CY	4	Foil/Spiral	D	0.190	4.83	0.040	1.02
86005CY	5	Foil/Spiral	D	0.200	5.08	0.040	1.02
86007CY	7	Foil/Spiral	D	0.223	5.66	0.040	1.02
86012CY	12	Foil/Spiral	D	0.283	7.19	0.040	1.02
86018CY	18	Foil/Spiral	D	0.282	7.16	0.040	1.02
86025CY	25	Foil/Spiral	D	0.329	8.36	0.040	1.02
86401CY	1	Foil/Braid	A	0.186	4.72	0.040	1.02
86402CY	2	Foil/Braid	A	0.231	5.87	0.040	1.02
86403CY	3	Foil/Braid	A	0.240	6.10	0.040	1.02
86404CY	4	Foil/Braid	A	0.256	6.50	0.040	1.02
86405CY	5	Foil/Braid	A	0.274	6.96	0.040	1.02
86406CY	6	Foil/Braid	A	0.293	7.44	0.040	1.02
86408CY	8	Foil/Braid	A	0.331	8.41	0.040	1.02
86410CY	10	Foil/Braid	A	0.365	9.27	0.045	1.14
86414CY	14	Foil/Braid	A	0.381	9.68	0.045	1.14

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
86102	2	Unshielded	D	0.162	4.11	0.040	1.02
86103	3	Unshielded	D	0.168	4.27	0.040	1.02
86104	4	Unshielded	D	0.179	4.55	0.040	1.02
86105	5	Unshielded	D	0.191	4.85	0.040	1.02
86107	7	Unshielded	D	0.217	5.51	0.040	1.02
86112	12	Unshielded	D	0.283	7.19	0.040	1.02
86118	18	Unshielded	D	0.282	7.16	0.040	1.02
86125	25	Unshielded	D	0.335	8.51	0.040	1.02
86102CY	2	Foil/Spiral	D	0.182	4.62	0.040	1.02
86103CY	3	Foil/Spiral	D	0.188	4.78	0.040	1.02
86104CY	4	Foil/Spiral	D	0.199	5.05	0.040	1.02
86105CY	5	Foil/Spiral	D	0.211	5.36	0.040	1.02
86107CY	7	Foil/Spiral	D	0.237	6.02	0.040	1.02
86112CY	12	Foil/Spiral	D	0.303	7.70	0.040	1.02
86118CY	18	Foil/Spiral	D	0.302	7.67	0.040	1.02
86125CY	25	Foil/Spiral	D	0.355	9.02	0.040	1.02
86501CY	1	Foil/Braid	A	0.194	4.93	0.040	1.02
86502CY	2	Foil/Braid	A	0.244	6.20	0.040	1.02
86503CY	3	Foil/Braid	A	0.254	6.45	0.040	1.02
86504CY	4	Foil/Braid	A	0.272	6.91	0.040	1.02
86505CY	5	Foil/Braid	A	0.292	7.42	0.040	1.02
86506CY	6	Foil/Braid	A	0.313	7.95	0.040	1.02
86508CY	8	Foil/Braid	A	0.355	9.02	0.040	1.02
86510CY	10	Foil/Braid	A	0.392	9.96	0.045	1.14
86514CY	14	Foil/Braid	A	0.426	10.82	0.053	1.35

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24 AWG (0.20 mm²)

Stranding: 10/34 (10 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
86202	2	Unshielded	D	0.172	4.37	0.040	1.02
86203	3	Unshielded	D	0.179	4.55	0.040	1.02
86204	4	Unshielded	D	0.191	4.85	0.040	1.02
86205	5	Unshielded	D	0.205	5.21	0.040	1.02
86207	7	Unshielded	D	0.233	5.92	0.040	1.02
86212	12	Unshielded	D	0.307	7.80	0.040	1.02
86218	18	Unshielded	D	0.307	7.80	0.040	1.02
86225	25	Unshielded	D	0.376	9.55	0.045	1.14
86202CY	2	Foil/Spiral	D	0.192	4.88	0.040	1.02
86203CY	3	Foil/Spiral	D	0.199	5.05	0.040	1.02
86204CY	4	Foil/Spiral	D	0.211	5.36	0.040	1.02
86205CY	5	Foil/Spiral	D	0.225	5.72	0.040	1.02
86207CY	7	Foil/Spiral	D	0.253	6.43	0.040	1.02
86212CY	12	Foil/Spiral	D	0.327	8.31	0.040	1.02
86218CY	18	Foil/Spiral	D	0.327	8.31	0.040	1.02
86225CY	25	Foil/Spiral	D	0.396	10.06	0.045	1.14
86601CY	1	Foil/Braid	A	0.204	5.18	0.040	1.02
86602CY	2	Foil/Braid	A	0.260	6.60	0.040	1.02
86603CY	3	Foil/Braid	A	0.272	6.91	0.040	1.02
86604CY	4	Foil/Braid	A	0.292	7.42	0.040	1.02
86605CY	5	Foil/Braid	A	0.314	7.98	0.040	1.02
86606CY	6	Foil/Braid	A	0.337	8.56	0.040	1.02
86608CY	8	Foil/Braid	A	0.385	9.78	0.040	1.02
86610CY	10	Foil/Braid	A	0.427	10.85	0.045	1.14
86614CY	14	Foil/Braid	A	0.463	11.76	0.053	1.35

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Cond.	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
86302	2	Unshielded	D	0.188	4.78	0.040	1.02
86303	3	Unshielded	D	0.197	5.00	0.040	1.02
86304	4	Unshielded	D	0.211	5.36	0.040	1.02
86305	5	Unshielded	D	0.227	5.77	0.040	1.02
86307	7	Unshielded	D	0.260	6.60	0.040	1.02
86312	12	Unshielded	D	0.347	8.81	0.040	1.02
86318	18	Unshielded	D	0.347	8.81	0.040	1.02
86325	25	Unshielded	D	0.426	10.82	0.045	1.14
86302CY	2	Foil/Spiral	D	0.208	5.28	0.040	1.02
86303CY	3	Foil/Spiral	D	0.217	5.51	0.040	1.02
86304CY	4	Foil/Spiral	D	0.231	5.87	0.040	1.02
86305CY	5	Foil/Spiral	D	0.247	6.27	0.040	1.02
86307CY	7	Foil/Spiral	D	0.280	7.11	0.040	1.02
86312CY	12	Foil/Spiral	D	0.367	9.32	0.040	1.02
86318CY	18	Foil/Spiral	D	0.367	9.32	0.040	1.02
86325CY	25	Foil/Spiral	D	0.446	11.33	0.045	1.14
86701CY	1	Foil/Braid	A	0.220	5.59	0.040	1.02
86702CY	2	Foil/Braid	A	0.287	7.29	0.040	1.02
86703CY	3	Foil/Braid	A	0.301	7.65	0.040	1.02
86704CY	4	Foil/Braid	A	0.324	8.23	0.040	1.02
86705CY	5	Foil/Braid	A	0.350	8.89	0.040	1.02
86706CY	6	Foil/Braid	A	0.377	9.58	0.040	1.02
86708CY	8	Foil/Braid	A	0.443	11.25	0.045	1.14
86710CY	10	Foil/Braid	A	0.497	12.62	0.053	1.35
86714CY	14	Foil/Braid	A	0.527	13.39	0.053	1.35

XTRA-GUARD® CONTINUOUS FLEX DATA CABLE

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300V Multiconductor

20 AWG (0.56 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.01 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
862002	2	Unshielded	D	0.204	5.18	0.040	1.02
862003	3	Unshielded	D	0.214	5.44	0.040	1.02
862004	4	Unshielded	D	0.230	5.84	0.040	1.02
862005	5	Unshielded	D	0.248	6.30	0.040	1.02
862007	7	Unshielded	D	0.293	7.44	0.043	1.09
862012	12	Unshielded	D	0.340	8.64	0.043	1.09
862002CY	2	Foil	D	0.224	5.69	0.040	1.02
862003CY	3	Foil	D	0.234	5.94	0.040	1.02
862004CY	4	Foil	D	0.250	6.35	0.040	1.02
862005CY	5	Foil	D	0.268	6.81	0.040	1.02
862007CY	7	Foil	D	0.313	7.95	0.043	1.09
8620012CY	12	Foil	D	0.360	9.14	0.043	1.09
8672001CY	1	Foil/Braid	A	0.236	5.99	0.040	1.02
8672002CY	2	Foil/Braid	A	0.319	8.10	0.043	1.09
8672003CY	3	Foil/Braid	A	0.335	8.51	0.043	1.09
8672004CY	4	Foil/Braid	A	0.362	9.19	0.043	1.09
8672005CY	5	Foil/Braid	A	0.412	10.46	0.053	1.35
8672006CY	6	Foil/Braid	A	0.443	11.25	0.053	1.35
8672008CY	8	Foil/Braid	A	0.513	13.03	0.053	1.35

18 AWG (0.81 mm²)

Stranding: 41/34 (41 x 0.16 mm)
Insulation thickness: 0.01 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
861802	2	Unshielded	D	0.210	5.33	0.040	1.02
861803	3	Unshielded	D	0.220	5.59	0.040	1.02
861804	4	Unshielded	D	0.237	6.02	0.040	1.02
861805	5	Unshielded	D	0.257	6.53	0.040	1.02
861807	7	Unshielded	D	0.303	7.70	0.043	1.09
861812	12	Unshielded	D	0.352	9.84	0.043	1.09
86182CY	2	Foil	D	0.230	5.84	0.040	1.02
86183CY	3	Foil	D	0.240	6.10	0.040	1.02
86184CY	4	Foil	D	0.257	6.53	0.040	1.02
86185CY	5	Foil	D	0.283	7.19	0.043	1.09
86187CY	7	Foil	D	0.323	8.20	0.043	1.09
861812CY	12	Foil	D	0.372	9.45	0.043	1.09
8671801CY	1	Foil/Braid	A	0.242	6.15	0.040	1.02
8671802CY	2	Foil/Braid	A	0.329	8.36	0.043	1.09
8671803CY	3	Foil/Braid	A	0.345	8.76	0.043	1.09
8671804CY	4	Foil/Braid	A	0.374	9.50	0.043	1.09
8671805CY	5	Foil/Braid	A	0.425	10.80	0.053	1.35
8671806CY	6	Foil/Braid	A	0.458	11.63	0.053	1.35
8671808CY	8	Foil/Braid	A	0.531	13.49	0.053	1.35

XTRA-GUARD® CONTINUOUS FLEX DATA CABLE

C-Track or High Flexing Applications Up to 6 Million Flex Life Cycles
300V Multiconductor

16 AWG (1.23 mm²)

Stranding: 65/34 (65 x 0.16 mm)
Insulation thickness: 0.01 (0.25 mm)

Part No.	Conductors	Shielding	Color Code	Nominal Diameter		Jacket Thickness	
				Inch	mm	Inch	mm
861602	2	Unshielded	D	0.236	5.99	0.040	1.02
861603	3	Unshielded	D	0.248	6.30	0.040	1.02
861604	4	Unshielded	D	0.275	6.99	0.043	1.09
861605	5	Unshielded	D	0.298	7.57	0.043	1.09
861607	7	Unshielded	D	0.346	8.79	0.043	1.09
861612	12	Unshielded	D	0.426	10.82	0.053	1.35
86162CY	2	Foil	D	0.256	6.50	0.040	1.02
86163CY	3	Foil	D	0.274	6.96	0.043	1.09
86164CY	4	Foil	D	0.295	7.49	0.043	1.09
86165CY	5	Foil	D	0.318	8.08	0.043	1.09
86167CY	7	Foil	D	0.366	9.30	0.043	1.09
861612CY	12	Foil	D	0.446	11.33	0.053	1.35
8671601CY	1	Foil/Braid	A	0.274	6.96	0.043	1.09
8671602CY	2	Foil/Braid	A	0.371	9.42	0.043	1.09
8671603CY	3	Foil/Braid	A	0.411	10.44	0.053	1.35
8671604CY	4	Foil/Braid	A	0.445	11.30	0.053	1.35
8671605CY	5	Foil/Braid	A	0.483	12.27	0.053	1.35
8671606CY	6	Foil/Braid	A	0.528	13.41	0.053	1.35
8671608CY	8	Foil/Braid	A	0.629	15.98	0.063	1.6

XTRA-GUARD® TORSIONAL FLEX CABLE

Torsional Cable with 360° Twisting

600V Multiconductor

24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87003	3	Unshielded	0.227	5.77	0.050	1.27
87004	4	Unshielded	0.242	6.15	0.050	1.27
87005	5	Unshielded	0.259	6.58	0.050	1.27
87007	7	Unshielded	0.294	7.47	0.050	1.27
87003CY	3	Spiral	0.246	6.25	0.050	1.27
87004CY	4	Spiral	0.261	6.63	0.050	1.27
87005CY	5	Spiral	0.278	7.06	0.050	1.27
87007CY	7	Spiral	0.313	7.95	0.050	1.27

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87103	3	Unshielded	0.244	6.20	0.050	1.27
87104	4	Unshielded	0.261	6.63	0.050	1.27
87105	5	Unshielded	0.281	7.14	0.050	1.27
87107	7	Unshielded	0.321	8.15	0.050	1.27
87103CY	3	Spiral	0.263	6.68	0.050	1.27
87104CY	4	Spiral	0.280	7.11	0.050	1.27
87105CY	5	Spiral	0.300	7.62	0.050	1.27
87107CY	7	Spiral	0.340	8.64	0.050	1.27

20 AWG (0.62 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87203	3	Unshielded	0.262	6.65	0.050	1.27
87204	4	Unshielded	0.281	7.14	0.050	1.27
87205	5	Unshielded	0.302	7.67	0.050	1.27
87207	7	Unshielded	0.347	8.81	0.050	1.27
87203CY	3	Spiral	0.281	7.14	0.050	1.27
87204CY	4	Spiral	0.300	7.62	0.050	1.27
87205CY	5	Spiral	0.321	8.15	0.050	1.27
87207CY	7	Spiral	0.366	9.30	0.050	1.27

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87303	3	Unshielded	0.283	7.19	0.050	1.27
87304	4	Unshielded	0.305	7.75	0.050	1.27
87305	5	Unshielded	0.329	8.36	0.050	1.27
87307	7	Unshielded	0.380	9.65	0.050	1.27
87303CY	3	Spiral	0.302	7.67	0.050	1.27
87304CY	4	Spiral	0.324	8.23	0.050	1.27
87305CY	5	Spiral	0.348	8.84	0.050	1.27
87307CY	7	Spiral	0.399	10.13	0.050	1.27

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87403	3	Unshielded	0.302	7.67	0.050	1.27
87404	4	Unshielded	0.327	8.31	0.050	1.27
87405	5	Unshielded	0.354	8.99	0.050	1.27
87407	7	Unshielded	0.410	10.41	0.050	1.27
87403CY	3	Spiral	0.321	8.15	0.050	1.27
87404CY	4	Spiral	0.346	8.79	0.050	1.27
87405CY	5	Spiral	0.373	9.47	0.050	1.27
87407CY	7	Spiral	0.429	10.90	0.050	1.27

14 AWG (2.07 mm²)

Stranding: 19/0.0147 (19 x 0.37 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87503	3	Unshielded	0.382	9.70	0.050	1.27
87504	4	Unshielded	0.417	10.59	0.050	1.27
87505	5	Unshielded	0.455	11.56	0.050	1.27
87507	7	Unshielded	0.535	13.59	0.050	1.27
87503CY	3	Spiral	0.401	10.19	0.050	1.27
87504CY	4	Spiral	0.436	11.07	0.050	1.27
87505CY	5	Spiral	0.474	12.04	0.050	1.27
87507CY	7	Spiral	0.554	14.07	0.050	1.27

12 AWG (3.29 mm²)

Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.027 (0.69 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87603	3	Unshielded	0.444	11.28	0.060	1.52
87604	4	Unshielded	0.483	12.27	0.060	1.52
87605	5	Unshielded	0.526	13.36	0.060	1.52
87607	7	Unshielded	0.618	15.70	0.060	1.52
87603CY	3	Spiral	0.463	11.76	0.060	1.52
87604CY	4	Spiral	0.502	12.75	0.060	1.52
87605CY	5	Spiral	0.545	13.84	0.060	1.52
87607CY	7	Spiral	0.637	16.18	0.060	1.52

10 AWG (5.22 mm²)

Stranding: 37/0.0167 (37 x 0.42 mm)
Insulation thickness: 0.030 (0.76 mm)

Part No.	Conductors	Shielding	Nominal Diameter		Jacket Thickness	
			Inch	mm	Inch	mm
87703	3	Unshielded	0.508	12.90	0.060	1.52
87704	4	Unshielded	0.555	14.10	0.060	1.52
87705	5	Unshielded	0.627	15.93	0.070	1.78
87707	7	Unshielded	0.737	18.72	0.070	1.78
87703CY	3	Spiral	0.527	13.39	0.060	1.52
87704CY	4	Spiral	0.574	14.58	0.060	1.52
87705CY	5	Spiral	0.646	16.41	0.070	1.78
87707CY	7	Spiral	0.756	19.20	0.070	1.78

Xtra-Guard® Industrial Ethernet

Rugged Connectivity for Industrial Networking

300V, Cat 5e



Rugged connectivity that goes beyond factory tough. Alpha Wire's new line of Xtra-Guard® Industrial Ethernet cables give you rugged connectivity for your industrial networking needs. Choose from the widest selection of materials, configurations, and shielding options to satisfy your needs for flexibility, fluid resistance, noise immunity, and other challenging application demands.

Designed for uncompromising performance to keep the network running anywhere, Xtra-Guard® Industrial Ethernet cables feature an abrasion-resistant thermoplastic elastomer jacket with three times the low-temperature flexibility, and resists solvents, chemicals, and fuels better than ordinary PVC.

Features

2 pair and 4 pair constructions

Supports data rates up to Gigabit Ethernet

Sunlight and abrasion resistant

Resistant to hazardous fluids

Flexible and routable

Three times the low temperature flexibility of PVC

Materials

Conductors

Stranded tinned copper
or solid bare copper

Insulation

FEP or polypropylene

Jacket

TPE jacket, black

Shielding

Unshielded, foil shielded,
SupraShield® Foil/Braid

Specifications

Cold bend radius

4x (unshielded) and 8x (shielded)

Temperature Range

PP Insulation

-50°C to +105°C
UL riser rated at 75°C

FEP Insulation

-50°C to +125°C
UL riser rated at 105°C

Configurations

Unshielded

Foil shielded

Aluminum/polyester, foil facing
in, 24 AWG drain wire

Supra-Shield® Foil/Braid Shield

Aluminum/Polyester/Aluminum
foil with 25% overlap min.
24 AWG tinned copper drain wire
Tinned copper braid,
70% coverage min.

Approvals

- ANSI/TIA-568-C.2 Cat 5e
- UL CMR
- UL 1666
- CSA FT-4
- NFPA 79 Compliant

XTRA-GUARD® INDUSTRIAL ETHERNET

Rugged Connectivity for Industrial Networking

300V, Cat 5e

Polypropylene Insulation

24 AWG (0.23 mm² Stranded/0.21 mm² Solid)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.008 (0.20 mm)

Part No.	Pairs	Conductors	Shielding	Nominal Diameter		Jacket Thickness		Insulation Thickness	
				Inch	mm	Inch	mm	Inch	mm
75020	2	Stranded	Unshielded	0.236	5.99	0.035	0.89	0.008	0.20
76020	4	Stranded	Unshielded	0.247	6.27	0.035	0.89	0.008	0.20
75010	2	Solid	Unshielded	0.207	5.26	0.035	0.89	0.008	0.20
76010	4	Solid	Unshielded	0.257	6.53	0.035	0.89	0.008	0.20
75021	2	Stranded	Foil Shielded	0.300	7.62	0.035	0.89	0.010	0.24
76021	4	Stranded	Foil Shielded	0.305	7.75	0.035	0.89	0.010	0.24
75011	2	Solid	Foil Shielded	0.300	7.62	0.035	0.89	0.010	0.24
76011	4	Solid	Foil Shielded	0.295	7.49	0.035	0.89	0.010	0.24
75022	2	Stranded	SupraShield® Foil/Braid	0.315	8.00	0.035	0.89	0.014	0.36
76022	4	Stranded	SupraShield® Foil/Braid	0.325	8.26	0.035	0.89	0.014	0.36
75012	2	Solid	SupraShield® Foil/Braid	0.325	8.26	0.035	0.89	0.014	0.36
76012	4	Solid	SupraShield® Foil/Braid	0.325	8.26	0.035	0.89	0.014	0.36

FEP Insulation

24 AWG (0.23 mm² Stranded/0.21 mm² Solid)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.007 (0.18 mm)

Part No.	Pairs	Conductors	Shielding	Nominal Diameter		Jacket Thickness		Insulation Thickness	
				Inch	mm	Inch	mm	Inch	mm
75000	2	Stranded	Unshielded	0.257	6.53	0.035	0.89	0.007	0.18
76000	4	Solid	Unshielded	0.257	6.53	0.035	0.89	0.007	0.18
75001	2	Stranded	Foil Shielded	0.300	7.62	0.035	0.89	0.009	0.23
76001	4	Solid	Foil Shielded	0.300	7.62	0.035	0.89	0.009	0.23
75002	2	Stranded	SupraShield® Foil/Braid	0.325	8.26	0.035	0.89	0.011	0.28
76002	4	Solid	SupraShield® Foil/Braid	0.325	8.26	0.035	0.89	0.011	0.28

Alpha Essentials Industrial Ethernet

Broad Range of Ethernet Cables



Alpha Essentials Industrial Ethernet collection is comprised of ten constructions. The expansion includes a wide range of categories including CAT 5e, CAT 6, and CAT 7, to better serve your component integration and bandwidth needs. All products are fully compatible with RJ45 connectors.

Ethernet cables are available in conductor sizes from 26-22 AWG with temperature ranges between -40°C to +90°C. The collection includes cables of varying flexibility (continuous, torsional, and moderate flex) and approvals. Alpha Wire's Industrial Ethernet is a perfect solution for applications in the robotics, medical, automation, and transportation industries.

Features

Resistance in harsh environments
(oil, gas, dust, mold)

Continuous, moderate, and torsional flex

Low smoke zero halogen and
flat cable constructions

Materials

Conductors

Tinned Copper
Bare Copper
Copper Alloys

Jacket

ZH-PUR
PVC
TPE

Shielding

Foil/Braid
Tinned copper braid shielding

Specifications

Temperature Range

-40°C to +90°C

Colors

Green, black

Conductors

Stranded and solid

Approvals

RoHS 2 and REACH Compliant
CE and RoHS Certified

Availability

500 ft (152 m)
Standard put up length
(7602F stocks 500 ft and 1000 ft)

ALPHA ESSENTIALS INDUSTRIAL ETHERNET

Broad Range of Ethernet Cables

Part No.	AWG (Stranding)	# of Pairs/ Conductors	Category	O. D.	Insulation	Shielding	Flex Type	Jacket	Jacket Color
74001	22 (19/34)	Cond	5e	0.256	PO	Foil/Braid (85%)	Continuous (5M Flex Life Cycles)	ZH-PUR	Green
74002	26 (7/34)	2 Pair	5e	0.236	PP	Foil/Braid (80%)	Flexible	ZH-PUR	Black
74003	26 (7/34)	2 Pair	5e	0.236	PP	Foil/Braid (80%)	Flexible	PVC	Black
74004	26 (7/34)	4 Pair	7	0.268	PE	TC Braid (65%)	Flexible	ZH-PUR	Black
74005	22 (19/34)	Cond	5	0.256	PP	Foil/Braid (85%)	Torsional (2M Flex Life Cycles)	ZH-PUR	Green
74006	26 (19/38)	4 Pair	5e	0.252	PP	Foil/Braid (80%)	Torsional (1M Flex Life Cycles)	ZH-PUR	Black
74007	22 (19/34)	Cond	5e	0.264	PO	Foil/Braid (80%)	Flexible	ZH-PUR	Black
74008	24 (Solid BC)	4 Pair (Bonded)	5e	0.285	PO	Unshielded	Static	PVC	Black
74009	22 (Solid BC)	4 Pair (Bonded)	5e	0.301	PO	Unshielded	Static	PVC	Black
74010	23 (Solid BC)	4 Pair (Bonded)	6	0.126	PO	Unshielded	Static	PVC	Black
7602F	24 (7/32)	4 Pair	5e	0.342	PO	Foil/Braid (85%)	Continuous (10 M Flex Life Cycles)	TPE	Black

APPROVALS	74001	74002	74003	74004	74005	74006	74007	74008	74009	74010	7602F
ANSI/TIA 568-C.2	✓	✓	✓	✓		✓		✓	✓	✓	
AWM 20626											✓
EN 50173-1		✓	✓	✓		✓					
EN 60332-1			✓				✓				
EN 60754-1						✓	✓				
EN 60754-2		✓		✓							
EN 60811-2-1	✓			✓	✓	✓	✓				
FT1										✓	✓
FT2	✓	✓		✓	✓	✓					
FT4								✓	✓		
IEC 60811-2-1		✓	✓								
ISO/IEC 11801	✓		✓	✓	✓	✓	✓	✓	✓		✓
ISO/IEC 24702		✓	✓								
LSZH (Low Smoke Zero Halogen)							✓				
NEMA WC-63.1								✓	✓		
OIL RES I								✓	✓	✓	
PROFINET	✓				✓						
SUN RES								✓	✓	✓	✓
UL AWM 20549	✓	✓									
UL CMR								✓	✓		
VW-1											✓

Data and Bus

Seamless Communication for Industrial Environments



As industrial automation systems continue to increase in complexity, we understand the challenges that engineers and manufacturers face in designing and interconnecting system components from sensors to top-level controllers. Our wide range of data and bus cables meet the stringent requirements of the major automation protocols.

ControlNet

Low-loss RG-6/U coax designed to meet the high-speed, time-critical requirements of modern ControlNet factory-floor automation systems.

RS-485

Bringing proven data transmission protocol to the factory floor, rugged RS-485 cables reduce electrical noise sensitivity to keep reliability and performance at world-class levels.

DeviceNet

Meeting OVDA thick and thin specifications, the cables comply with Allen-Bradley 1485 CPI-A and 1485 CPI-C, and support high data rates (500 kb/s at 100m and 125 kb/s at 500m).

Fieldbus and PROFIBUS

A complete family meets ruggedness, performance, and quality requirements of almost any fieldbus and PROFIBUS application environment.

Industrial Twinax

A robust physical media for the transmission of PLC/DCS signals in real-time, high-throughput applications, including Allen-Bradley Data Highway networks. The cables may be installed in the same tray or conduit as 600-volt power cable.

DATA AND BUS

Seamless Communication for Industrial Environments

ControlNet					
Part No.	Nominal Diameter		Center Conductor		Nominal Impedance (ohms)
	Inch	mm	AWG	mm ²	
6458	0.298	7.57	18	0.82	75
Operating Temp		-30°C to +75°C			
Jacket		Black PVC			
Materials		Foil +60% aluminum braid + foil +40% aluminum braid			
Shielding		Double braid and foil			
Insulation		Foam polyethylene			
Conductor		Solid bare copperweld			
Features		UL Sunlight Resistant 82% velocity of propagation 16.2 pF/ft (53.1pF/m) nominal capacitance			
Approvals		UL CL2R UL CMR CSA CMG FT4			

DeviceNet					
Part No.	Type	Pairs	Nominal Diameter		
			Inch	mm	
6451	Thick	1 Power: 15 AWG (1.75 mm ²), 19/0.0135 (19 x 0.35 mm) stranding 1 Data: 18 AWG (0.96 mm ²), 19/30 (19 x 0.25 mm) stranding	0.480	12.19	
6452	Thin	1 Power: 22 AWG (0.38 mm ²), 19/34 (19 x 0.16 mm) stranding 1 Data: 24 AWG (0.24 mm ²), 19/36 (19 x 0.13 mm) stranding	0.280	7.11	
Operating Temp		-20°C to +75°C (static) 0°C to +80°C (dynamic)			
Color Code		Power: Black/Red Data: Blue/White			
Jacket		Slate PVC			
Materials		65% tinned copper braid overall			
Shielding		Each pair individually foil shielded			
Insulation		PVC (power pair) Foam HDPE insulation (data pair)			
Conductor		Tinned copper			
Features		Oil resistant UL Sunlight Resistant 120-ohm nominal impedance (data pair)			
Approvals		UL CMG UL PLTC-ER (Thick) UL CL2 (Thin) CSA CMG FT4 CSA AWM I/II A/B FT4			

RS-485 Cable							
22 AWG (0.35 mm ²)							
Stranding: 7/30 (7 x 0.25 mm)							
Part No.	Pairs	Nominal Diameter		Insulation Thickness		Jacket Thickness	
		Inch	mm	Inch	mm	Inch	mm
6453	1	0.284	7.21	0.028	0.71	0.042	1.07
6454*	1.5	0.300	7.62	0.032	0.81	0.042	1.07
6455	2	0.408	10.36	0.024	0.61	0.053	1.35
6456	3	0.414	10.52	0.022	0.56	0.053	1.35
6457	4	0.448	11.38	0.022	0.56	0.053	1.35
Operating Temp		-20°C to +60°C					
Color Code		Color Code M *Orange/White-White Orange Pair; Blue/White					
Jacket		Black PVC					
Shielding		Foil + 65% tinned copper braid					
Insulation		Foam high-density polyethylene					
Conductor		Tinned copper					
Features		UL Sunlight Resistant 120-ohm nominal impedance					
Approvals		UL CM, CMG UL TC, PLTC CSA CM, CMG FT1					

FieldBus								
Part No.	Fieldbus Type	Pairs	Conductor		Stranding		Nominal Diameter	
			AWG	mm ²	AWG	mm	Inch	mm
6459	A	1	18	0.90	7/26	7 x 0.40	0.253	6.43
6460	B	1	22	0.33	7/0.0096	7 x 0.24	0.196	4.97
Operating Temp		-30°C to +105°C						
Color Code		Blue/Orange						
Jacket		Orange PVC						
Shielding		Foil Shield						
Insulation		Polyolefin						
Conductor		Tinned copper						
Features		UL Sunlight Resistant 100-ohm nominal impedance						
Approvals		UL PLTC-ER UL CM UL ITC CSA CM						

High Speed Field Bus								
Part No.	Pairs	Conductor		Stranding		Nominal Diameter		
		AWG	mm ²	AWG	mm	Inch	mm	
6461	1	22	0.35	7/30	7 x 0.25	0.351	8.92	
Operating Temp		-40°C to +75°C						
Color Code		Blue/Orange						
Jacket		Orange PVC						
Shielding		Foil Shield						
Insulation		Foam high-density polyethylene						
Conductor		Tinned copper						
Features		UL Sunlight Resistant 150-ohm nominal impedance						
Approvals		UL PLTC UL CM CSA CM						

PROFIBUS-DP							
Part No.	Pairs	Conductor		Stranding		Nominal Diameter	
		AWG	mm ²	AWG	mm	Inch	mm
6462	1	22	0.32	Solid	N/A	0.315	8.00
6463	1	22	0.35	7/30	7 x 0.25	0.315	8.00
Operating Temp		-30°C to +75°C (PLTC, CMG) -30°C to +60°C (AWM)					
Color Code		Red/Green					
Jacket		Purple PVC					
Shielding		Foil + 65% tinned copper braid					
Insulation		Foam high-density polyethylene					
Conductor		Tinned solid or stranded copper conductors					
Features		UL Sunlight Resistant 150-ohm nominal impedance					
Approvals		UL AWM 20201 (6462) UL PLTC UL CMG CSA CMG FT4					

Industrial Twinax							
Part No.	Pairs	Conductor		Stranding		Nominal Diameter	
		AWG	mm ²	AWG	mm	Inch	mm
6450	1	18	0.90	7/26	7 x 0.40	0.324	8.23
Operating Temp		-40°C to +75°C					
Color Code		Blue/White					
Jacket		Blue PVC					
Shielding		Foil + 55% tinned copper braid					
Insulation		Flame-resistant polypropylene					
Conductor		Tinned stranded copper					
Features		UL Sunlight Resistant 78-ohm nominal impedance					
Approvals		UL TC, PLTC, ITC UL CMG CSA CMG FT4					

Flexible Motor Supply

High-Performance Flexible Cable for Motor and Drive Applications



The symmetrical design of the cables results in a smaller diameter and easier routing of connectors to servomotors, AC drives, and variable-frequency drives (VFD).

The combination of the conductor stranding and overall cable design make the product suitable for applications that require better flexibility. The cables are MTW-rated and meet the requirements of NFPA 79, allowing them to be used in industrial machinery applications.

The cables feature our double shielded foil plus braid and a double layer of aluminum foil on polyester, offering exceptional EMI performance across a wide range of frequencies.

Features

Premium PVC jacket for outstanding sunlight and oil resistance

Foil/Braid shielding for exceptional EMI protection

Products with ST00W portable rating as well as brake or signal pairs available on request

Materials

Conductors

Stranded bare copper

Insulation

PVC/nylon

Shielding

Foil/Braid shield: Aluminum/polyester/aluminum foil shield, with 25% overlap and four tinned copper drain wires plus tinned copper braid with 70% coverage

Specifications

Temperature Range

-40°C to +90°C

Voltage

600/1000 V

Conductors

4

Size Range

16 to 6 AWG (1.32 to 13.49 mm²)

Color Coding

Chart KX
One green/yellow and three numbered black conductors

Applications

Ideal for motor, drive, wind turbine, and light-duty VFD applications

Approvals

Suitable for use Class I, Division 2 locations per Article 501 of the National Electric Code

- UL TC-ER
- UL MTW
- UL WTTC
- UL Oil Res. I
- UL Sunlight Resistant
- UL Direct Burial
- CSA AWM I/II A/B FT4
- CE Compliant
- RoHS Compliant
- NFPA 79 Compliant

16 to 6 AWG (1.49 to 5.33 mm²)

Part No.	Cond.	Color Code	Wire Size		Stranding		Nominal Diameter		Jacket Thickness		Insulation Thickness	
			AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
5660	4	KX	16	1.32	26/30	26 x 0.25	0.381	9.67	0.050	1.27	0.016	0.40
5661	4	KX	14	2.08	41/30	41 x 0.25	0.418	10.61	0.050	1.27	0.016	0.40
5662	4	KX	12	3.30	65/30	65 x 0.25	0.464	11.78	0.050	1.27	0.016	0.40
5663	4	KX	10	5.32	105/30	105 x 0.25	0.579	14.70	0.063	1.60	0.022	0.55
5664	4	KX	8	8.52	168/30	168 x 0.25	0.760	19.30	0.063	1.60	0.032	0.81
5665	4	KX	6	13.49	266/30	266 x 0.25	0.901	22.88	0.083	2.10	0.032	0.81

Conductor Color Coding

Multipair and Multiconductor Cables

Multipair Cables

Chart A

No.	Color Combination
1	Black + Red
2	Black + White
3	Black + Green
4	Black + Blue
5	Black + Brown
6	Black + Yellow
7	Black + Orange
8	Red + Green
9	Red + White
10	Red + Blue
11	Red + Yellow
12	Red + Brown
13	Red + Orange
14	Green + Blue
15	Green + White
16	Green + Brown
17	Green + Orange
18	Green + Yellow
19	White + Blue
20	White + Brown
21	White + Orange
22	White + Yellow
23	Blue + Brown
24	Blue + Orange
25	Blue + Yellow
26	Brown + Orange
27	Brown + Yellow
28	Violet + Red
29	Violet + White
30	Violet + Green
31	Violet + Blue
32	Violet + Brown
33	Violet + Yellow
34	Violet + Orange
35	Violet + Slate
36	Violet + Black
37	Slate + Red
38	Slate + White
39	Slate + Green

Multipair Cables

Chart B

No.	Color Combination	No.	Color Combination
1	White + Black	52	White/Black + Blue
2	White + Brown	53	White/Black + Violet
3	White + Red	54	White/Black + Slate
4	White + Orange	55	White/Brown + Black
5	White + Yellow	56	White/Brown + Brown
6	White + Green	57	White/Brown + Red
7	White + Blue	58	White/Brown + Orange
8	White + Violet	59	White/Brown + Yellow
9	White + Slate	60	White/Brown + Green
10	Black + Brown	61	White/Brown + Blue
11	Black + Red	62	White/Brown + Violet
12	Black + Orange	63	White/Brown + Slate
13	Black + Yellow	64	White/Red + Black
14	Black + Green	65	White/Red + Brown
15	Black + Blue	66	White/Red + Red
16	Black + Violet	67	White/Red + Orange
17	Black + Slate	68	White/Red + Yellow
18	Brown + Red	69	White/Red + Green
19	Brown + Orange	70	White/Red + Blue
20	Brown + Yellow	71	White/Red + Violet
21	Brown + Green	72	White/Red + Slate
22	Brown + Blue	73	White/Orange + Black
23	Brown + Violet	74	White/Orange + Brown
24	Brown + Slate	75	White/Orange + Red
25	Red + Orange	76	White/Orange + Orange
26	Red + Yellow	77	White/Orange + Yellow
27	Red + Green	78	White/Orange + Green
28	Red + Blue	79	White/Orange + Blue
29	Red + Violet	80	White/Orange + Violet
30	Red + Slate	81	White/Orange + Slate
31	Orange + Yellow	82	White/Yellow + Black
32	Orange + Green	83	White/Yellow + Brown
33	Orange + Blue	84	White/Yellow + Red
34	Orange + Violet	85	White/Yellow + Orange
35	Orange + Slate	86	White/Yellow + Yellow
36	Yellow + Green	87	White/Yellow + Green
37	Yellow + Blue	88	White/Yellow + Blue
38	Yellow + Violet	89	White/Yellow + Violet
39	Yellow + Slate	90	White/Yellow + Slate
40	Green + Blue	91	White/Green + Black
41	Green + Violet	92	White/Green + Brown
42	Green + Slate	93	White/Green + Red
43	Blue + Violet	94	White/Green + Orange
44	Blue + Slate	95	White/Green + Yellow
45	Violet + Slate	96	White/Green + Green
46	White/Black + Black	97	White/Green + Blue
47	White/Black + Brown	98	White/Green + Violet
48	White/Black + Red	99	White/Green + Slate
49	White/Black + Orange	100	White/Blue + Black
50	White/Black + Yellow	101	White/Blue + Brown
51	White/Black + Green	102	White/Blue + Red

Multipair Cables

Chart M

No.	Color Combination
1	Blue/White + White/Blue
2	Orange/White + White/Orange
3	Green/White + White/Green
4	Brown/White + White/Brown
5	Slate/White + White/Slate
6	Blue/Red + Red/Blue
7	Orange/Red + Red/Orange
8	Green/Red + Red/Green
9	Brown/Red + Red/Brown
10	Slate/Red + Red/Slate
11	Blue/Black + Black/Blue
12	Orange/Black + Black/Orange
13	Green/Black + Black/Green
14	Brown/Black + Black/Brown
15	Slate/Black + Black/Slate
16	Blue/Yellow + Yellow/Blue
17	Orange/Yellow + Yellow/Orange
18	Green/Yellow + Yellow/Green
19	Brown/Yellow + Yellow/Brown
20	Slate/Yellow + Yellow/Slate
21	Blue/Violet + Violet/Blue
22	Orange/Violet + Violet/Orange
23	Green/Violet + Violet/Green
24	Brown/Violet + Violet/Brown
25	Slate/Violet + Violet/Slate

Multiconductor Cables

Chart D

No.	Base Color	1st Stripe	2nd Stripe	No.	Base Color	1st Stripe	2nd Stripe	3rd Stripe
1	Black			51	White	Blue	Violet	
2	Red			52	White	Brown	Black	
3	White			53	White	Brown	Red	
4	Green			54	White	Brown	Green	
5	Orange			55	White	Brown	Blue	
6	Blue			56	White	Brown	Brown	
7	Brown			57	White	Brown	Violet	
8	Yellow			58	White	Violet	Red	
9	Violet			59	White	Violet	Green	
10	Slate			60	White	Violet	Blue	
11	Pink			61	White	Black	Red	Green
12	Tan			62	White	Black	Red	Yellow
13	Red	Green		63	White	Black	Red	Blue
14	Red	Yellow		64	White	Black	Red	Brown
15	Red	Black		65	White	Black	Red	Orange
16	White	Black		66	White	Black	Red	Slate
17	White	Red		67	White	Black	Red	Violet
18	White	Green		68	White	Black	Green	Yellow
19	White	Yellow		69	White	Black	Green	Blue
20	White	Blue		70	White	Black	Green	Brown
21	White	Brown		71	White	Black	Green	Orange
22	White	Orange		72	White	Black	Green	Slate
23	White	Slate		73	White	Black	Green	Violet
24	White	Violet		74	White	Black	Yellow	Blue
25	White	Black	Red	75	White	Black	Yellow	Brown
26	White	Black	Green	76	White	Black	Yellow	Orange
27	White	Black	Yellow	77	White	Black	Yellow	Slate
28	White	Black	Blue	78	White	Black	Yellow	Violet
29	White	Black	Brown	79	White	Black	Blue	Brown
30	White	Black	Orange	80	White	Black	Blue	Orange
31	White	Black	Slate	81	White	Black	Blue	Slate
32	White	Black	Violet	82	White	Black	Blue	Violet
33	White	Black	Black	83	White	Black	Brown	Orange
34	White	Red	Black	84	White	Black	Brown	Slate
35	White	Red	Red	85	White	Black	Brown	Violet
36	White	Red	Green	86	White	Black	Orange	Slate
37	White	Red	Blue	87	White	Black	Orange	Violet
38	White	Red	Brown	88	White	Black	Slate	Violet
39	White	Red	Violet	89	White	Red	Black	Green
40	White	Green	Black	90	White	Red	Black	Yellow
41	White	Green	Red	91	White	Red	Black	Blue
42	White	Green	Green	92	White	Red	Black	Brown
43	White	Green	Blue	93	White	Red	Black	Orange
44	White	Green	Brown	94	White	Red	Black	Slate
45	White	Green	Violet	95	White	Red	Black	Violet
46	White	Blue	Black	96	White	Red	Green	Yellow
47	White	Blue	Red	97	White	Red	Green	Blue
48	White	Blue	Green	98	White	Red	Green	Brown
49	White	Blue	Blue	99	White	Red	Green	Orange
50	White	Blue	Brown	100	White	Red	Green	Slate

Multiconductor Cables

Chart E

No.	Base Color	1st Stripe	2nd Stripe	3rd Stripe
1	Black			
2	Brown			
3	Red			
4	Orange			
5	Yellow			
6	Green			
7	Blue			
8	Violet			
9	Slate			
10	White			
11	White	Black		
12	White	Brown		
13	White	Red		
14	White	Orange		
15	White	Yellow		
16	White	Green		
17	White	Blue		
18	White	Violet		
19	White	Slate		
20	White	Black	Brown	
21	White	Black	Red	
22	White	Black	Orange	
23	White	Black	Yellow	
24	White	Black	Green	
25	White	Black	Blue	
26	White	Black	Violet	
27	White	Black	Slate	
28	White	Brown	Red	
29	White	Brown	Orange	
30	White	Brown	Yellow	
31	White	Brown	Green	
32	White	Brown	Blue	
33	White	Brown	Violet	
34	White	Brown	Slate	
35	White	Red	Orange	
36	White	Red	Yellow	
37	White	Red	Green	
38	White	Red	Blue	
39	White	Red	Violet	
40	White	Red	Slate	
41	White	Orange	Yellow	
42	White	Orange	Green	
43	White	Orange	Blue	
44	White	Orange	Violet	
45	White	Orange	Slate	
46	White	Yellow	Green	
47	White	Yellow	Blue	
48	White	Yellow	Violet	
49	White	Yellow	Slate	
50	White	Green	Blue	
51	White	Green	Violet	
52	White	Green	Slate	
53	White	Blue	Violet	
54	White	Blue	Slate	
55	White	Violet	Slate	
56	White	Black	Brown	Red
57	White	Black	Brown	Orange
58	White	Black	Brown	Yellow
59	White	Black	Brown	Green
60	White	Black	Brown	Blue
61	White	Black	Brown	Violet
62	White	Black	Brown	Slate
63	White	Black	Red	Yellow
64	White	Black	Red	Green
65	White	Black	Red	Blue
66	White	Black	Red	Violet
67	White	Black	Red	Slate
68	White	Black	Orange	Yellow

Multiconductor Cables

Chart KX

No.	Color
1	Green/Yellow
2	Black #1
3	Black #2
4	Black #3
5	Black #4
6	Black #5
7	Black #6
8	Black #7
9	Black #8
10	Black #9
11	Black #10
12	Black #11
13	Black #12
14	Black #13
15	Black #14
16	Black #15
17	Black #16
18	Black #17
19	Black #18
20	Black #19
21	Black #20
22	Black #21
23	Black #22
24	Black #23
25	Black #24
26	Black #25
27	Black #26
28	Black #27
29	Black #28
30	Black #29
31	Black #30
32	Black #31
33	Black #32
34	Black #33
35	Black #34
36	Black #35
37	Black #36
38	Black #37
39	Black #38
40	Black #39
41	Black #40
42	Black #41
43	Black #42
44	Black #43
45	Black #44
46	Black #45
47	Black #46
48	Black #47
49	Black #48
50	Black #49
51	Black #50
52	Black #51
53	Black #52
54	Black #53
55	Black #54
56	Black #55
57	Black #56
58	Black #57
59	Black #58
60	Black #59
61	Black #60
62	Black #61
63	Black #62
64	Black #63
65	Black #64

More Solutions

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