

XTRA•GUARD® Flexible Cables

PERMANENT SOLUTIONS FOR CRITICAL FLEXING APPLICATIONS

Manufactured In The U.S.A. 

Choose **XTRA•GUARD® Flexible Cables** to deliver high speed dependability along with the flexibility needed in cases of difficult and/or complex cable positioning. **XTRA•GUARD® Flexible Cables** feature unsurpassed flame and moisture resistance, outstanding oil and chemical resistance, premium grade PVC and Polyurethane jackets. **XTRA•GUARD® Flexible Cables** are UL Recognized or Listed, CSA certified, tested to MIL-C-13777G for flex life and are **CE** marked. Product performance is verified with certified test reports. Call or visit our web site at www.alphawire.com for up-to-date cable test information.



COMMON FLEXING APPLICATIONS

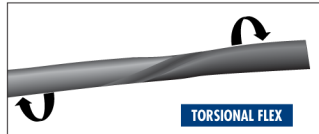
There are four common types of cable flexing movements to consider when designing and applying a high-flex cable. They are rolling flex, bending flex or "tic-toc", torsional flex and variable/random motion flex (see illustrations at right).

Different cable construction methods and materials are used depending on the cable flexing movement. For example: torsional cables will have a different lay length and cabling method than a rolling flex cable. Cable performance is evaluated using physical test data and statistical analysis to produce flex life and overall system reliability.

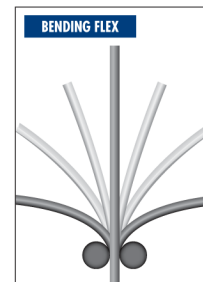
An understanding of the cables' application will allow the designer to choose the correct cable and reliably predict the products' lifetime and performance.



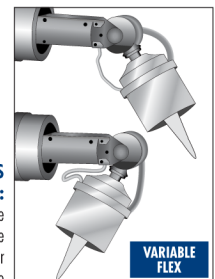
For ROLLING FLEX APPLICATIONS SPECIFY AND CHOOSE:
XTRA•GUARD® High-Flex Control Cable
XTRA•GUARD® High-Flex Mini Diameter Data Cable



For TORSIONAL FLEX APPLICATIONS SPECIFY AND CHOOSE:
XTRA•GUARD® High-Flex Torsion Robotic Cable



For BENDING FLEX APPLICATIONS SPECIFY AND CHOOSE:
XTRA•GUARD® Standard-Flex Control Cable
XTRA•GUARD® High-Flex Control Cable
XTRA•GUARD® High-Flex Mini Diameter Data Cable



For VARIABLE FLEX APPLICATIONS SPECIFY AND CHOOSE:
XTRA•GUARD® Standard-Flex Control Cable
XTRA•GUARD® High-Flex Control Cable
XTRA•GUARD® High-Flex Mini Diameter Data Cable

APPLICATIONS

- Applications Requiring Increased Flexibility
- Machine Tools
- CNC Machine Centers
- Data Processing Equipment
- Automation Equipment
- Material Handling Equipment
- Applications Requiring Continuous Flexing
- Robotics
- Installation in Cable Track
- Assembly Lines
- Industrial Electronic Processing Equipment
- DataComm Connections
- Connecting Sensors & Actuators to Controllers
- Sensor & I/O Interconnects
- Automation Networking
- PLC, Microprocessor & Computer Interconnects
- Twisting & Random Robotic Flexing Applications
- Power Supply to Welding, Painting & Articulating Robots

UL AWM STYLE 2587
CSA AWM II A/B FT1
RoHS COMPLIANT
600 VOLT

XTRA·GUARD® Flexible Cables

STANDARD-FLEX CONTROL CABLE

OIL RESISTANT, MULTICONDUCTOR, SHIELDED

CHOOSE XTRA·GUARD STANDARD-FLEX CONTROL CABLES FOR:

- Outstanding Oil and Chemical Resistance
- UL Recognized and CSA Certified, CE Marked
- Jacket Meets VDE 0472, Section 803 Oil Test
- Ease of Installation
- NOT FOR USE IN CABLE HIGH-FLEX APPLICATIONS

XTRA·GUARD STANDARD-FLEX CABLE APPLICATIONS:

- Applications Requiring Increased Flexibility
- Machine Tools
- CNC Machine Centers
- Data Processing Equipment
- Automation Equipment
- Material Handling Equipment

CHARACTERISTICS

OPERATING TEMPERATURE:

- -5°C to 90°C (Flexing)
- -40°C to 90°C (Stationary)

VOLTAGE RATING:

- 600 Volt

COLOR DESCRIPTION:

- Color Code: Numerically Numbered (Alternate and Inverted) Black Conductors with One Green/Yellow Conductor on Outside Layer
- Jacket Color: Gray

PRODUCT DESCRIPTION:

- Conductor: Finely Stranded Bare Copper
- Insulation: Lubricated PVC
- Fillers: Non-Wicking, Solid PVC Rod
- Inner Jacket: PVC
- Shield: Tinned Copper Braid (85% Coverage)
- Outer Jacket: Oil Resistant PVC

SPECIFICATIONS

- Bend Radius: 8X Cable Diameter
- UL AWM Style 2587
- CSA AWM II A/B FT1
- Jacket Meets VDE 0472, Section 803 Oil Test
- CE LVD-CD 73/23/EEC Modified by CD 93/68/EEC
- RoHS Compliant



Underwriters Laboratories Inc.



Canadian Standards Association



RoHS Compliant

AVAILABILITY

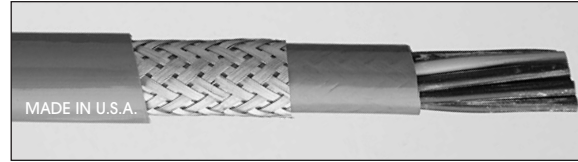
- In Stock: Bulk, Cut to Length

FIT® TUBING RECOMMENDATION

FIT® FLEX – Highly Flexible, Irradiated Silicone Rubber
(See Page 134 for Product Specifications)

FIT® -650 – Chemical and Temperature Resistant Irradiated Viton®
(See Page 132 for Product Specifications)

Viton® is a registered trademark of DuPont Dow Elastomers



20 AWG (0,50mm²), **10/30** (10/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65003CY	3	0.035	0,89	0.320	8,1
65007CY	7	0.035	0,89	0.385	9,8
65012CY	12	0.040	1,00	0.500	12,7
65025CY	25	0.050	1,30	0.685	17,4

18 AWG (1,0mm²), **16/30** (16/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65803CY	3	0.035	0,89	0.340	8,6
65804CY	4	0.035	0,89	0.360	9,1
65805CY	5	0.035	0,89	0.400	10,2
65807CY	7	0.035	0,89	0.420	10,7
65812CY	12	0.045	1,10	0.550	14,0
65818CY	18	0.053	1,40	0.640	16,3
65825CY	25	0.053	1,40	0.750	19,1

16 AWG (1,5mm²), **26/30** (26/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65603CY	3	0.035	0,89	0.375	9,5
65604CY	4	0.035	0,89	0.400	10,2
65605CY	5	0.035	0,89	0.435	11,0
65607CY	7	0.035	0,89	0.465	11,8
65612CY	12	0.050	1,30	0.625	15,9
65618CY	18	0.060	1,50	0.745	18,9
65625CY	25	0.065	1,70	0.880	22,4

14 AWG (2,5mm²), **41/30** (41/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65403CY	3	0.040	1,00	0.430	10,9
65404CY	4	0.045	1,10	0.470	11,9
65405CY	5	0.050	1,30	0.520	13,2
65407CY	7	0.055	1,40	0.565	14,4

12 AWG (4,0mm²), **65/30** (65/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65203CY	3	0.060	1,50	0.530	13,5
65204CY	4	0.065	1,70	0.610	15,7
65205CY	5	0.070	1,80	0.665	16,9

10 AWG (6,0mm²), **105/30** (105/0,25mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
65103CY	3	0.070	1,80	0.615	15,6
65104CY	4	0.070	1,80	0.665	16,9
65105CY	5	0.075	1,90	0.740	18,8

