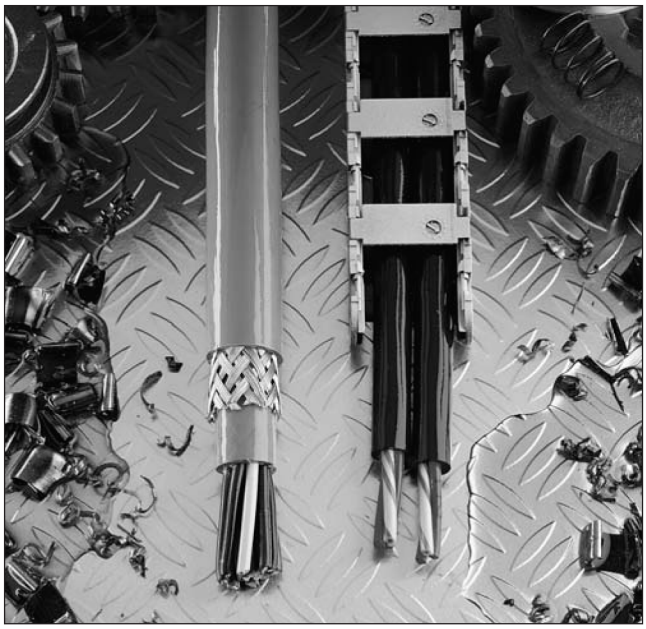
XTRA•GUARD® Flexible Cables

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.

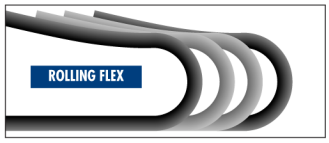


COMMON FLEXING APPLICATIONS

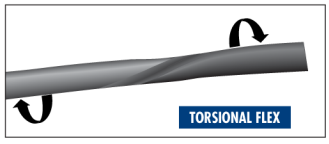
There are four common types of cable flexing movements to consider when designing and applying a high-flex cable. They are rolling flex, bending flex or "tic-toc", torsional flex and variable/random motion flex (see illustrations at right).

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.

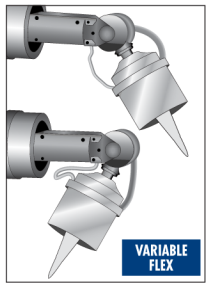


For ROLLING FLEX APPLICATIONS SPECIFY AND CHOOSE:
XTRA•GUARD® High-Flex Control Cable
XTRA•GUARD® High-Flex Mini Diameter Data Cable



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

XTRA•GUARD® Flexible Cables

STANDARD-FLEX CONTROL CABLE

OIL RESISTANT, MULTICONDUCTOR, UNSHIELDED

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

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 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 Yellow/Green Conductor on Outside Layer (Yellow/Green Conductor on 3 Conductor and Above Only.)
- Jacket Color: Gray

PRODUCT DESCRIPTION:

- Conductor: Finely Stranded Bare Copper
- Insulation: Lubricated PVC
- Fillers: Non-Wicking, Solid PVC Rod
- Jacket: Oil Resistant PVC

SPECIFICATIONS

- **Bend Radius:** 5X 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

Recognized Component — Underwriters Laboratories Inc.
Certified — Canadian Standards Association
CE
RoHS Compliant

AVAILABILITY

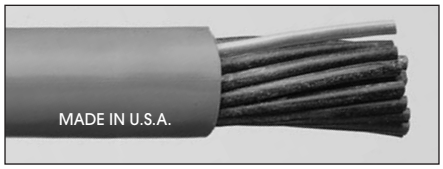
- **In Stock:** Bulk, Cut to Length

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 Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65002	2	0.035	0,89	0.230	5,8
65003	3	0.035	0,89	0.240	6,1
65004	4	0.035	0,89	0.260	6,6
65005	5	0.035	0,89	0.290	7,4
65007	7	0.035	0,89	0.310	7,9
65009	9	0.040	1,00	0.410	10,4
65012	12	0.045	1,10	0.420	10,7
65018	18	0.055	1,40	0.510	13,0
65025	25	0.055	1,40	0.590	15,0

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

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65802	2	0.035	0,89	0.250	6,4
65803	3	0.035	0,89	0.260	6,6
65804	4	0.035	0,89	0.285	7,2
65805	5	0.035	0,89	0.310	7,9
65807	7	0.035	0,89	0.340	8,6
65809	9	0.035	0,89	0.445	11,3
65812	12	0.045	1,10	0.460	11,7
65818	18	0.050	1,30	0.550	14,0
65825	25	0.050	1,30	0.635	16,1
65834	34	0.060	1,50	0.750	19,1
65841	41	0.063	1,60	0.810	20,6

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

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65602	2	0.035	0,89	0.275	7,0
65603	3	0.035	0,89	0.290	7,4
65604	4	0.035	0,89	0.315	8,0
65605	5	0.035	0,89	0.350	8,9
65607	7	0.035	0,89	0.380	9,7
65609	9	0.040	1,00	0.510	13,0
65612	12	0.050	1,30	0.530	13,5
65618	18	0.050	1,30	0.620	15,7
65625	25	0.055	1,40	0.750	19,1
65641	41	0.075	1,90	0.940	23,9

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

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65402	2	0.045	1,10	0.325	8,3
65403	3	0.045	1,10	0.345	8,8
65404	4	0.055	1,40	0.400	10,2
65405	5	0.055	1,40	0.430	10,9
65407	7	0.055	1,40	0.470	11,9
65409	9	0.065	1,70	0.615	15,6
65412	12	0.085	2,20	0.660	16,8
65418	18	0.090	2,30	0.770	19,6
65425	25	0.110	2,80	0.945	24,0

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

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65203	3	0.065	1,70	0.440	11,2
65204	4	0.080	2,00	0.500	12,7
65205	5	0.085	2,20	0.550	14,0

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

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
65103	3	0.080	2,00	0.510	13,0
65104	4	0.085	2,20	0.560	14,2
65105	5	0.090	2,30	0.620	15,7