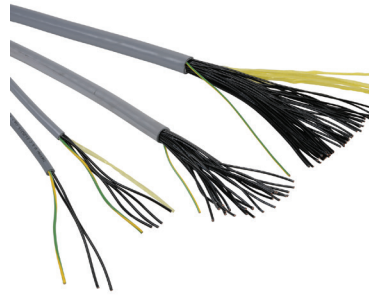
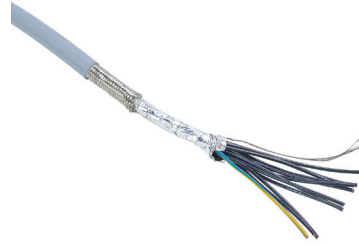


Multi-Conductor Flexible Control Cable



Unshielded Flexible Control Cable



Shielded Flexible Control Cable



Multi-conductor flexible control cable from AutomationDirect is available in sizes from 18AWG to 10AWG with 3 to 41 unshielded and shielded conductors. Individual conductors are bare copper and stranded for flexibility, with black PVC/Nylon insulation and marked with numbers for easy identification. A convenient ground conductor is included in the conductor count of each cable and has insulation that is green with a yellow line. Shielded versions include both an overall aluminum mylar foil tape with drain wire and tinned copper braid for maximum effectiveness against external electrical noise interference. The cable's outer jacket is a flexible, premium grade Thermoplastic Elastomer (TPE) that is resistant to sunlight, oil, and moisture penetration, making these cables suitable for wet and dry locations as well as outdoors. Although not suitable for continuous flexing applications, these cables are ideal for both stationary and flexible applications with limited mechanical stress and free movement without any tensile stress, loads or forced movements.

With multiple ratings and approvals, AutomationDirect flexible multi-conductor control cable has the versatility to meet a wide range of industrial applications. Given its Tray Cable Exposed Run rating, UL Type TC-ER, our cable can be installed between a cable tray and the utilization equipment or device without the need for metal conduit and/or armor resulting in installation and maintenance savings. With the Machine Tool Wire rating, UL Type MTW, these cables meet NFPA 79, Electrical Standard for Industrial Machinery. Other ratings and approvals include

Wind Turbine Tray Cable UL Type WTTC, Class 1 Division 2 Hazardous Locations and Direct Burial.

When combined with AutomationDirect ZIPport multi-wire connectors, our flexible multi-conductor cables provide an economical way to organize and simplify control wiring in facilities and during assembly of machinery. Cut to length in 1 foot increments with a 20 foot minimum length.

Features

- 18AWG to 10AWG, 3 to 41 conductors including a ground
- Unshielded and shielded constructions
- Individual conductors have black PVC/Nylon insulation and are marked with identification numbers
- Rugged Thermoplastic Elastomer (TPE) outer jacket
- Green/yellow ground wire included
- Multiple ratings and approvals include Type TC-ER (eliminates need for conduit/armor), Type MTW (meets NFPA 79), WTTC, Class 1 Division 2, Direct Burial, Wet and Dry Location, Oil Resistant, Sunlight Resistant
- Flexibility for easy installation
- Cut to length in 1 foot increments
- Low 20 foot minimum length
- Made in the USA
- Ideal for use with ZIPport multi-wire connectors (as shown below)

Cable Use Examples*:



* Cables shown using AutomationDirect's ZIPport multi-wire connectors. See Terminal Blocks & Wiring Solutions section for further information.



18 Gauge Multi-Conductor Flexible Control Cable (Unshielded)

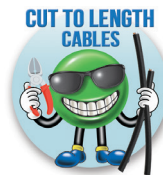
| 18 Gauge Multi-Conductor Flexible Control Cable Specifications (Unshielded) | | | |
|---|---|-----------------------------|---|
| Conductor Gauge & Stranding | 18AWG 16/30 bare copper, Class K | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| Voltage Rating | 600V (Type TC-ER) 1000V (Type WTTC) 1000V (UL/CSA AWM) | | Oil Resistance |
| Capacitance | 28.2 pF/ft Nom. Conductor to Conductor | Applicable Standards | ASTM B3, B172, B174 |
| Resistance | 6.53 Ω/ft* | | UL 1277 - Type TC-ER |
| Impedance | 55.0 Ω | | UL 2277 - Type WTTC |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1063 - Machine Tool Wiring (MTW) |
| Jacket Material | "Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant " | | UL 1690 - Data Processing Cable (DP-1) |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | UL 758 - AWM Style 20886 |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | C22.2 NO. 230 - c(UL) Type TC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Cold Impact | -40°C (-40°F) per UL 1277 | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| Min. Bend Radius | 4x diameter | | Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 18 Gauge Multi-Conductor Flexible Control Cable (Unshielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| V40166-1 | 3 | 18 | 16 | 20 | 45 | 0.28 | 1.12 | 20 | 0.05 | \$0.47 |
| V40168-1 | 4 | | | | | 0.31 | 1.24 | 20 | 0.06 | \$0.58 |
| V40170-1 | 5 | | | | | 0.33 | 1.32 | 20 | 0.07 | \$0.74 |
| V40172-1 | 7 | | | | | 0.36 | 1.44 | 20 | 0.09 | \$0.99 |
| V40174-1 | 9 | | | | | 0.41 | 1.64 | 20 | 0.11 | \$1.40 |
| V40176-1 | 12 | | | | | 0.46 | 1.84 | 20 | 0.14 | \$1.67 |
| V40178-1 | 18 | | | | 45 | 0.55 | 2.20 | 20 | 0.21 | \$2.33 |
| V40180-1 | 25 | | | | 60 | 0.64 | 2.56 | 20 | 0.25 | \$3.26 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

16 Gauge Multi-Conductor Flexible Control Cable (Unshielded)

| 16 Gauge Multi-Conductor Flexible Control Cable Specifications (Unshielded) | | | | |
|---|---|-----------------------------|--|----------------|
| Conductor Gauge & Stranding | 16AWG 26/30 bare copper, Class K | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 | |
| Voltage Rating | 600V (Type TC-ER) | Applicable Standards | UL1685, UL MTW NFPA 79 2007 | |
| | 1000V (Type WTTC) | | Oil Resistance | Oil Res I & II |
| | 1000V (UL/CSA AWM) | | ASTM B3, B172, B174 UL 1277 - Type TC-ER UL 2277 - Type WTTC UL 1063 - Machine Tool Wiring (MTW) UL 1690 - Data Processing Cable (DP-1) UL 758 - AWM Style 20886 C22.2 NO. 230 - c(UL) Type TC CSA 22.2 No. 239 - c(UL) Type CIC CSA C22.2 No. 210 - CSA AWM I/II A/B Class 1 Division II per NEC 336, 501, 502 | |
| Capacitance | 32.78 pF/ft Nom. Conductor to Conductor | | | |
| Resistance | 4.10 Ω/kft* | | | |
| Impedance | 46.3 Ω | | | |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | | |
| Jacket Material | "Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant " | | | |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | | |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | | |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | | |
| Cold Impact | -40°C (-40°F) per UL 1277 | | | |
| Min. Bend Radius | 4x diameter | | | |

* Per ASTM B174

| 16 Gauge Multi-Conductor Flexible Control Cable (Unshielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| V50196-1 | 3 | 16 | 26 | 20 | 50 | 0.31 | 1.24 | 20 | 0.06 | \$0.65 |
| V50198-1 | 4 | | | | | 0.34 | 1.36 | 20 | 0.08 | \$0.81 |
| V50200-1 | 5 | | | | | 0.37 | 1.48 | 20 | 0.09 | \$1.02 |
| V50202-1 | 7 | | | | | 0.40 | 1.60 | 20 | 0.11 | \$1.40 |
| V50206-1 | 9 | | | | | 0.46 | 1.84 | 20 | 0.14 | \$1.81 |
| V50208-1 | 12 | | | | 50 | 0.51 | 2.04 | 20 | 0.20 | \$2.28 |
| V50212-1 | 18 | | | | 65 | 0.62 | 2.48 | 20 | 0.28 | \$3.30 |
| V50214-1 | 25 | | | | 0.72 | 2.88 | 20 | 0.35 | \$4.46 | |
| V50216-1 | 41 | | | | 85 | 0.91 | 3.64 | 20 | 0.56 | \$6.98 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

14 Gauge Multi-Conductor Flexible Control Cable (Unshielded)

| 14 Gauge Multi-Conductor Flexible Control Cable Specifications (Unshielded) | | | |
|---|--|---|--|
| Conductor Gauge & Stranding | 14AWG 41/30 bare copper, Class K | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| Voltage Rating | 600V (Type TC-ER) | | UL1685, UL MTW NFPA 79 2007 |
| | 1000V (Type WTTC) | Applicable Standards | Oil Res I & II |
| | 1000V (UL/CSA AWM) | | ASTM B3, B172, B174 |
| Capacitance | 37.09 pF/ft Nom. Conductor to Conductor | | UL 1277 - Type TC-ER |
| Resistance | 2.57 Ω /kft* | | UL 2277 - Type WTTC |
| Impedance | 40.0 Ω | | UL 1063 - Machine Tool Wiring (MTW) |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1690 - Data Processing Cable (DP-1) |
| Jacket Material | "Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant" | | UL 758 - AWM Style 20886 |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | C22.2 NO. 230 - c(UL) Type TC |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| Cold Impact | -40°C (-40°F) per UL 1277 | Class 1 Division II per NEC 336, 501, 502 | |
| Min. Bend Radius | 4x diameter | | |

* Per ASTM B174

| 14 Gauge Multi-Conductor Flexible Control Cable (Unshielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|-----------------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches $\pm 10\%$) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| V60127-1 | 3 | 14 | 41 | 20 | 50 | 0.34 | 1.36 | 20 | 0.82 | \$0.91 |
| V60129-1 | 4 | | | | | 0.37 | 1.48 | 20 | 0.11 | \$1.12 |
| V60131-1 | 5 | | | | | 0.41 | 1.64 | 20 | 0.13 | \$1.39 |
| V60133-1 | 7 | | | | | 0.45 | 1.80 | 20 | 0.16 | \$1.93 |
| V60135-1 | 9 | | | | | 0.52 | 2.08 | 20 | 0.21 | \$2.51 |
| V60137-1 | 12 | | | | | 0.60 | 2.40 | 20 | 0.28 | \$3.40 |
| V60139-1 | 18 | | | | 65 | 0.70 | 2.80 | 20 | 0.40 | \$4.88 |
| V60141-1 | 25 | | | | | 0.81 | 3.24 | 20 | 0.57 | \$6.84 |

* Installed bend radius $\geq 4x$ diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

12 and 10 Gauge Multi-Conductor Flexible Control Cable (Unshielded)

| 12 Gauge Multi-Conductor Flexible Control Cable Specifications (Unshielded) | | | |
|---|---|---|-----------------------------------|
| Conductor Gauge & Stranding | 12AWG 65/30 bare copper, Class K | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| Voltage Rating | 600V (Type TC-ER) | Oil Resistance | UL1685, UL MTW NFPA 79 2007 |
| | 1000V (Type WTTTC) | | Oil Res I & II |
| | 1000V (UL/CSA AWM) | | Applicable Standards |
| Capacitance | 40.4 pF/ft Nom. Conductor to Conductor | UL 1277 - Type TC-ER | |
| Resistance | 1.62 Ω/kft* | UL 2277 - Type WTTTC | |
| Impedance | 36.1 Ω | UL 1063 - Machine Tool Wiring (MTW) | |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | UL 1690 - Data Processing Cable (DP-1) | |
| Jacket Material | "Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant " | UL 758 - AWM Style 20886 | |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | C22.2 NO. 230 - c(UL) Type TC | |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | CSA 22.2 No. 239 - c(UL) Type CIC | |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | CSA C22.2 No. 210 - CSA AWM I/II A/B | |
| Cold Impact | -40°C (-40°F) per UL 1277 | Class 1 Division II per NEC 336, 501, 502 | |
| Min. Bend Radius | 4x diameter | | |

* Per ASTM B174

| 12 Gauge Multi-Conductor Flexible Control Cable (Unshielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| V70107-1 | 4 | 12 | 65 | 20 | 50 | 0.43 | 1.72 | 20 | 0.15 | \$1.81 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths

| 10 Gauge Multi-Conductor Flexible Control Cable Specifications (Unshielded) | | | |
|---|---|---|-----------------------------------|
| Conductor Gauge & Stranding | 10 AWG 105/30 bare copper, Class K | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| Voltage Rating | 600V (Type TC-ER) | Oil Resistance | UL1685, UL MTW NFPA 79 2007 |
| | 1000V (Type WTTTC) | | Oil Res I & II |
| | 1000V (UL/CSA AWM) | | Applicable Standards |
| Capacitance | 40.7 pF/ft Nom. Conductor to Conductor | UL 1277 - Type TC-ER | |
| Resistance | 1.02 Ω/kft* | UL 2277 - Type WTTTC | |
| Impedance | 35.8 Ω | UL 1063 - Machine Tool Wiring (MTW) | |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | UL 1690 - Data Processing Cable (DP-1) | |
| Jacket Material | "Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant " | UL 758 - AWM Style 20886 | |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | C22.2 NO. 230 - c(UL) Type TC | |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | CSA 22.2 No. 239 - c(UL) Type CIC | |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | CSA C22.2 No. 210 - CSA AWM I/II A/B | |
| Cold Impact | -40°C (-40°F) per UL 1277 | Class 1 Division II per NEC 336, 501, 502 | |
| Min. Bend Radius | 4x diameter | | |

* Per ASTM B174

| 10 Gauge Multi-Conductor Flexible Control Cable | | | | | | | | | | |
|---|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| V80059-1 | 4 | 10 | 105 | 25 | 50 | 0.50 | 2.00 | 20 | 0.21 | \$2.60 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

18 Gauge Multi-Conductor Flexible Control Cable (Shielded)

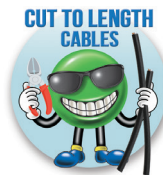
| 18 Gauge Multi-Conductor Flexible Control Cable Specifications (Shielded) | | | |
|---|---|-----------------------------|---|
| Conductor Gauge & Stranding | 18AWG 16/30 bare copper, Class K | Cold Impact | -40°C (-40°F) per UL 1277 |
| Voltage Rating | 600V (Type TC-ER) | Min. Bend Radius | 12x diameter |
| | 1000V (Type WTTC) | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| | 1000V (UL/CSA AWM) | | UL1685, UL MTW NFPA 79 2007 |
| Capacitance | 72.02 pF/ft Nom. Conductor to Shield | Applicable Standards | Oil Res I & II |
| | 40.01 pF/ft Nom. Conductor to Conductor | | ASTM B3, B172, B174 |
| Resistance | 6.53 Ω/kt* | | UL 1277 - Type TC-ER |
| Impedance | 53.8 Ω | | UL 2277 - Type WTTC |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1063 - Machine Tool Wiring (MTW) |
| Jacket Material | Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant | | UL 1690 - Data Processing Cable (DP-1) |
| Shield | Overall aluminized polyester foil shield 100% coverage & tinned copper braid 85% coverage with 20 AWG drain | | UL 758 - AWM Style 20886 |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | C22.2 NO. 230 - c(UL) Type TC |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| | | | Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 18 Gauge Multi-Conductor Flexible Control Cable (Shielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| MCTC-18-3S-1 | 3 | 18 | 16 | 20 | 47 | 0.30 | 3.60 | 20 | 0.06 | \$0.89 |
| MCTC-18-4S-1 | 4 | | | | | 0.33 | 3.96 | 20 | 0.07 | \$0.98 |
| MCTC-18-5S-1 | 5 | | | | | 0.35 | 4.20 | 20 | 0.08 | \$1.08 |
| MCTC-18-7S-1 | 7 | | | | | 0.38 | 4.56 | 20 | 0.10 | \$1.27 |
| MCTC-18-9S-1 | 9 | | | | | 0.44 | 5.28 | 20 | 0.14 | \$1.58 |
| MCTC-18-12S-1 | 12 | | | | | 0.47 | 5.64 | 20 | 0.16 | \$1.84 |
| MCTC-18-25S-1 | 25 | | | | 62 | 0.66 | 7.92 | 20 | 0.31 | \$3.53 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

16 Gauge Multi-Conductor Flexible Control Cable (Shielded)

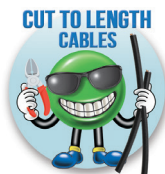
| 16 Gauge Multi-Conductor Flexible Control Cable Specifications (Shielded) | | | |
|---|---|-------------------------|---|
| Conductor Gauge & Stranding | 16AWG 26/30 bare copper, Class K | Cold Impact | -40°C (-40°F) per UL 1277 |
| Voltage Rating | 600V (Type TC-ER) | Min. Bend Radius | 12x diameter |
| | 1000V (Type WTTC) | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| | 1000V (UL/CSA AWM) | | UL1685, UL MTW NFPA 79 2007 |
| Capacitance | 85.59 pF/ft Nom. Conductor to Shield | Oil Resistance | Oil Res I & II |
| | 47.55 pF/ft Nom. Conductor to Conductor | | ASTM B3, B172, B174 |
| Resistance | 4.10 Ω/kft* | | UL 1277 - Type TC-ER |
| Impedance | 45.3 Ω | | UL 2277 - Type WTTC |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1063 - Machine Tool Wiring (MTW) |
| Jacket Material | Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant | | UL 1690 - Data Processing Cable (DP-1) |
| Shield | Overall aluminized polyester foil shield 100% coverage & tinned copper braid 85% coverage with 18 AWG drain | | UL 758 - AWM Style 20886 |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | C22.2 NO. 230 - c(UL) Type TC |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| | | | Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 16 Gauge Multi-Conductor Flexible Control Cable (Shielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| MCTC-16-3S-1 | 3 | 16 | 26 | 20 | 47 | 0.33 | 3.96 | 20 | 0.08 | \$1.09 |
| MCTC-16-4S-1 | 4 | | | | | 0.36 | 4.32 | 20 | 0.10 | \$1.19 |
| MCTC-16-5S-1 | 5 | | | | | 0.39 | 4.68 | 20 | 0.11 | \$1.34 |
| MCTC-16-7S-1 | 7 | | | | | 0.42 | 5.04 | 20 | 0.14 | \$1.67 |
| MCTC-16-9S-1 | 9 | | | | | 0.49 | 5.88 | 20 | 0.18 | \$2.01 |
| MCTC-16-12S-1 | 12 | | | | 73 | 0.56 | 6.72 | 20 | 0.28 | \$2.73 |
| MCTC-16-25S-1 | 25 | | | | 76 | 0.75 | 9.00 | 20 | 0.41 | \$4.69 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

14 Gauge Multi-Conductor Flexible Control Cable (Shielded)

| 14 Gauge Multi-Conductor Flexible Control Cable Specifications (Shielded) | | | |
|---|--|-------------------------|---|
| Conductor Gauge & Stranding | 14AWG 41/30 bare copper, Class K | Cold Impact | -40°C (-40°F) per UL 1277 |
| Voltage Rating | 600V (Type TC-ER) | Min. Bend Radius | 12x diameter |
| | 1000V (Type WTTC) | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| | 1000V (UL/CSA AWM) | | UL1685, UL MTW NFPA 79 2007 |
| Capacitance | 99.09 pF/ft Nom. Conductor to Shield 55.05 pF/ft Nom. Conductor to Conductor | Oil Resistance | Oil Res I & II |
| Resistance | 2.57 Ω/kft* | | ASTM B3, B172, B174 |
| Impedance | 39.1 Ω | | UL 1277 - Type TC-ER |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 2277 - Type WTTC |
| Jacket Material | Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant | | UL 1063 - Machine Tool Wiring (MTW) |
| Shield | Overall aluminized polyester foil shield 100% coverage & tinned copper braid 85% coverage with 16 AWG drain | | UL 1690 - Data Processing Cable (DP-1) |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | UL 758 - AWM Style 20886 |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | C22.2 NO. 230 - c(UL) Type TC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA 22.2 No. 239 - c(UL) Type CIC |
| | | | CSA C22.2 No. 210 - CSA AWM I/II A/B Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 14 Gauge Multi-Conductor Flexible Control Cable (Shielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| MCTC-14-3S-1 | 3 | 14 | 41 | 20 | 47 | 0.36 | 4.32 | 20 | 0.10 | \$1.38 |
| MCTC-14-4S-1 | 4 | | | | | 0.40 | 4.80 | 20 | 0.13 | \$1.65 |
| MCTC-14-7S-1 | 7 | | | | | 0.47 | 5.64 | 20 | 0.20 | \$2.43 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

12 Gauge Multi-Conductor Flexible Control Cable (Shielded)

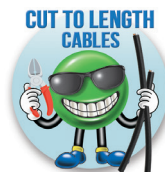
| 12 Gauge Multi-Conductor Flexible Control Cable Specifications (Shielded) | | | |
|---|---|-------------------------|---|
| Conductor Gauge & Stranding | 12AWG 65/30 bare copper, Class K | Cold Impact | -40°C (-40°F) per UL 1277 |
| Voltage Rating | 600V (Type TC-ER) | Min. Bend Radius | 12x diameter |
| | 1000V (Type WTTC) | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| | 1000V (UL/CSA AWM) | | UL1685, UL MTW NFPA 79 2007 |
| Capacitance | 109.85 pF/ft Nom. Conductor to Shield | Oil Resistance | Oil Res I & II |
| | 61.03 pF/ft Nom. Conductor to Conductor | | ASTM B3, B172, B174 |
| Resistance | 1.62 Ω/kft* | | UL 1277 - Type TC-ER |
| Impedance | 35.5 Ω | | UL 2277 - Type WTTC |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1063 - Machine Tool Wiring (MTW) |
| Jacket Material | Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant | | UL 1690 - Data Processing Cable (DP-1) |
| Shield | Overall aluminized polyester foil shield 100% coverage & tinned copper braid 85% coverage with 14 AWG drain | | UL 758 - AWM Style 20886 |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | C22.2 NO. 230 - c(UL) Type TC |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| | | | Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 12 Gauge Multi-Conductor Flexible Control Cable (Shielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| MCTC-12-4S-1 | 4 | 12 | 65 | 25 | 47 | 0.44 | 5.28 | 20 | 0.18 | \$1.96 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

10 Gauge Multi-Conductor Flexible Control Cable (Shielded)

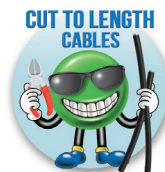
| 10 Gauge Multi-Conductor Flexible Control Cable Specifications (Shielded) | | | |
|---|---|-------------------------|---|
| Conductor Gauge & Stranding | 10AWG 105/30 bare copper, Class K | Cold Impact | -40°C (-40°F) per UL 1277 |
| Voltage Rating | 600V (Type TC-ER) | Min. Bend Radius | 12x diameter |
| | 1000V (Type WTTC) | Flame Rating | FT4, IEEE 1202/383, ICEA T-29-520 |
| | 1000V (UL/CSA AWM) | | UL1685, UL MTW NFPA 79 2007 |
| Capacitance | 110.83 pF/ft Nom. Conductor to Shield | Oil Resistance | Oil Res I & II |
| | 61.57 pF/ft Nom. Conductor to Conductor | | ASTM B3, B172, B174 |
| Resistance | 1.02 Ω/kft* | | UL 1277 - Type TC-ER |
| Impedance | 35.0 Ω | | UL 2277 - Type WTTC |
| Operating Temperature | -40°C to 90°C (-40°F to 194°F) | | UL 1063 - Machine Tool Wiring (MTW) |
| Jacket Material | Flexible Gray Thermoplastic Elastomer (TPE) - sunlight & oil resistant | | UL 1690 - Data Processing Cable (DP-1) |
| Shield | Overall aluminized polyester foil shield 100% coverage & tinned copper braid 85% coverage with 12 AWG drain | | UL 758 - AWM Style 20886 |
| Conductor Insulation | 0.015 Inch, PVC + 0.005 Inch, NYLON | | C22.2 NO. 230 - c(UL) Type TC |
| Conductor Markings | "#1-ONE", "2-TWO", "3-THREE", etc... @ 4.5 inch intervals, ICEA Method 4 | | CSA 22.2 No. 239 - c(UL) Type CIC |
| Temperature Rating | 75°C (167°F) Wet, 90°C (194°F) Dry | | CSA C22.2 No. 210 - CSA AWM I/II A/B |
| | | | Class 1 Division II per NEC 336, 501, 502 |

* Per ASTM B174

| 10 Gauge Multi-Conductor Flexible Control Cable (Shielded) | | | | | | | | | | |
|--|--|-----|--------|---|---------------------------------|----------------------------|---|---------------------------|----------------------------|----------------|
| Part Number | Number of Conductors (includes ground) | AWG | Strand | Overall Conductor Insulation Thickness (Mils) | Overall Jacket Thickness (Mils) | Nominal O.D. (Inches ±10%) | Minimum Installed Bend Radius (inches)* | Minimum Cut Length (ft)** | Approximate Weight (lb/ft) | Price per foot |
| MCTC-10-4S-1 | 4 | 10 | 105 | 25 | 62 | 0.56 | 6.72 | 20 | 0.32 | \$3.13 |

* Installed bend radius ≥ 4x diameter

** See web store for maximum cut lengths



Please Note: Our prices on flexible control cable are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.