



**Product:** [UHF4X1.0CY](#)

MachFlex™ High Flex 350CY UL Certified, 4 C 1 mm<sup>2</sup> Str BC, PVC Ins, PVC Inner Jkt, TCBS, PVC Outer Jkt

## Product Description

MachFlex™ High Flex Control 350CY UL Certified, 4 Conductors 1 mm<sup>2</sup> Stranded Bare Copper, PVC Insulation, PVC Inner Jacket, Tinned Copper Braid Shield, PVC Outer Jacket

## Technical Specifications

### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more. This type of cables with flex cycles more than 5 millions would be ideally applied to drag chain and the frequently moving fields. Shielding would highly enable the cables be qualified with excellent immunity. This product group also meets UL standard requirements. |
|------------------------|---|

### Construction Details

#### Conductor

| Element      | No. of Elements | Size              | Stranding | Material         |
|--------------|-----------------|-------------------|-----------|------------------|
| Conductor(s) | 4               | 1 mm <sup>2</sup> | Stranded  | BC - Bare Copper |
| Ground       | 1               | 1 mm <sup>2</sup> | Stranded  | BC - Bare Copper |

#### Insulation

| Element      | Material                 | Color Code                             |
|--------------|--------------------------|--|
| Conductor(s) | PVC - Polyvinyl Chloride | Black #1, Black #2, Black #3, Black #4 |

#### Outer Shield

| Shield Type | Material           | Coverage |
|-------------|--------------------|----------|
| Braid       | Tinned Copper (TC) | 80%      |

#### Inner Jacket

| Material                 |
|--------------------------|
| PVC - Polyvinyl Chloride |

#### Outer Jacket

| Material                 |
|--------------------------|
| PVC - Polyvinyl Chloride |

Overall Cable Diameter (Nominal): 9.1 mm (0.36 in)

### Electrical Characteristics

#### Voltage

| UL Voltage Rating              | Voltage Rating   |
|--------------------------------|--|
| 300 V (Max. Operating Voltage) | 300/500 V (Max. Operating Voltage (VDE)), 4000 V (Testing Voltage) |

### Mechanical Characteristics

#### Temperature

| Operating  | Installation                                     |
|--|--|
| 0°C to +70°C ( UL: +80°C ) (Continuous movement) | 40°C to +80°C ( UL: +80°C ) (Fixed installation) |

|              |  |
|--------------|--|
| Table Notes: | "Drag Chain Performance : 1m Travel Distance, Travel Speed 2m/s, Acceleration 4m/s <sup>2</sup> ≥ 5,000,000 Cycles; 5m Travel Distance, Travel Speed 3m/s, Acceleration 10m/s <sup>2</sup> ≥ 200,000 Cycles" |
|--------------|--|

#### Bend Radius

| Stationary Min.     | Installation Min. |
|---------------------|-------------------|
| 68.25 mm (2.687 in) | 36.4 mm (1.43 in) |

Bulk Cable Weight: 129 kg/km (86.7 lbs/1000ft)

#### Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | UV Resistance, Oil Resistance - EN 50290-2-22 (TM54)                                      |
| Flammability / Reaction to Fire: | FT 1 , VW-1, IEC 60332-1-2, DIN VDE 0482-332-1-2, DIN EN 60332-1-2                        |
| AWM Compliance:                  | AWM 2464, AWM I/II A/B  |
| ISO/IEC Compliance:              | IEC 60228   |
| CENELEC Compliance:              | EN 50363-4-1, EN 50363-3  |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2) |
| Other Standard Compliance(s):    | VDE 0285, UL 1581, VDE 0295, DIN VDE 0207-363-4-1, BS 6360                                |

#### Product Notes

|        |  |
|--------|--|
| Notes: | General Reference Standards : DIN VDE 0245, DIN VDE 0207-363-3, DIN VDE 0473-811-404, DIN EN 60811-404 |
|--------|--|

#### History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.5 Revision Date: 10-22-2024 |
|----------------------|--|

#### Part Numbers

##### Variants

| Item #             | Color          | Length |
|--------------------|----------------|--------|
| UHF4X1.0CY 010200M | Black          | 200 m  |
| UHF4X1.0CY 010300M | Black          | 300 m  |
| UHF4X1.0CY 010500M | Black          | 500 m  |
| UHF4X1.0CY 006200M | Blue           | 200 m  |
| UHF4X1.0CY 006300M | Blue           | 300 m  |
| UHF4X1.0CY 006500M | Blue           | 500 m  |
| UHF4X1.0CY G8U200M | Gray, RAL 7001 | 200 m  |
| UHF4X1.0CY G8U300M | Gray, RAL 7001 | 300 m  |
| UHF4X1.0CY G8U500M | Gray, RAL 7001 | 500 m  |

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