



**Product:** [UHF3G1.5](#)

**MachFlex™ High Flex 350YY UL Certified, 2 C + 1 G 1.5 mm<sup>2</sup> Str BC, PVC Ins, PVC Outer Jkt**

### Product Description

MachFlex™ High Flex Control 350YY UL Certified, 2 Conductors + Ground 1.5 mm<sup>2</sup> Stranded Bare Copper, PVC Insulation, PVC 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. This product group also meets UL standard requirements.

#### Construction Details

##### Conductor

| Element      | No. of Elements | Size                | Stranding | Material         |
|--------------|-----------------|---------------------|-----------|------------------|
| Conductor(s) | 2               | 1.5 mm <sup>2</sup> | Stranded  | BC - Bare Copper |
| Ground       | 1               | 1.5 mm <sup>2</sup> | Stranded  | BC - Bare Copper |

##### Insulation

| Element      | Material                 | Color Code         |
|--------------|--------------------------|--------------------|
| Conductor(s) | PVC - Polyvinyl Chloride | Black #1, Black #2 |
| Ground       | PVC - Polyvinyl Chloride | Yellow/Green       |

##### Outer Jacket

| Material   |
|--|
| PVC - Polyvinyl Chloride                           |
| Overall Cable Diameter (Nominal): 7.2 mm (0.28 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. |
|---|-------------------|
| 54 mm (2.1 in)                              | 28.8 mm (1.13 in) |
| Bulk Cable Weight: 86 kg/km (58 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 0473-811-2-1, DIN EN 60811-2-1 |
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## History

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

## Part Numbers

### Variants

| Item #           | Color          | Length |
|------------------|----------------|--------|
| UHF3G1.5 010200M | Black          | 200 m  |
| UHF3G1.5 010300M | Black          | 300 m  |
| UHF3G1.5 010500M | Black          | 500 m  |
| UHF3G1.5 006200M | Blue           | 200 m  |
| UHF3G1.5 006300M | Blue           | 300 m  |
| UHF3G1.5 006500M | Blue           | 500 m  |
| UHF3G1.5 G8U200M | Gray, RAL 7001 | 200 m  |
| UHF3G1.5 G8U300M | Gray, RAL 7001 | 300 m  |
| UHF3G1.5 G8U500M | Gray, RAL 7001 | 500 m  |

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