



Product: MSHCY016 ☑

MachFlex<sup>™</sup> SERVO Hybrid 610BCY, 3C+1G 2.5mm<sup>2</sup> Str BC, PP Ins, 2 Pr 1.0mm<sup>2</sup> BC, PP Ins IS + TC Brd, Overall TC Brd, PVC Jkt

# **Product Description**

MachFlex™ SERVO Hybrid 610BCY, 3 Conductor +1 Ground 2.5mm² Stranded Bare Copper, PP Insulation, 2 Pair 1.0mm² Bare Copper, PP Insulation, Aluminium Foil Plus Tinned Copper Braid Shield Over Each pair, Overall Tinned Copper Braid Shield, PVC Outer Jacket, 1000V Flexible SERVO Motor Supply Cable

## **Technical Specifications**

## **Product Overview**

| Suitable Applications:   | Designed for connecting servo controller with motor. Cable applications include motor speed control, printing machine, production machinery and machine tools. This type of cables |
|--------------------------|--|
| Cultubio / (ppiloutiono: | suitable for plant engineering both of static or flexible use. Signal pair shield plus overall shield ensure good performance on EMI/RFI resistance.                               |

### **Construction Details**

#### Conductor

| Element        | No. of Elements | Size                | Stranding | Stranding Class | Material         |
|----------------|-----------------|---------------------|-----------|-----------------|------------------|
| Conductor(s)   | 3               | 2.5 mm <sup>2</sup> | Stranded  | Class 5         | BC - Bare Copper |
| Ground         | 1               | 2.5 mm <sup>2</sup> | Stranded  | Class 5         | BC - Bare Copper |
| Signal Pair(s) | 2               | 1 mm²               | Stranded  | Class 5         | BC - Bare Copper |

## Insulation

| Element      | Material           | Color Code                                |
|--------------|--------------------|---|
| Conductor(s) | PP - Polypropylene | Black #1, Black #2, Black #3              |
| Ground Wire  | PP - Polypropylene | Yellow/Green                              |
| Pair(s)      | PP - Polypropylene | 1. Black #5&Black#6, 2. Black #7&Black #8 |

### Inner Shield

| Element   | Shield Type | Material                | Coverage |
|-----------|-------------|-------------------------|----------|
| Each Pair | Таре        | Bi-Laminate (Alum+Poly) | 100%     |
| Each Pair | Braid       | Tinned Copper (TC)      | 85%      |

# Outer Shield

| Shield Type | Material           | Coverage |
|-------------|--------------------|----------|
| Braid       | Tinned Copper (TC) | 85%      |

# Outer Jacket

| Waterial                          |                    |
|-----------------------------------|--------------------|
| PVC - Polyvinyl Chloride          |                    |
| Overall Cable Diameter (Nominal): | 14.3 mm (0.563 in) |

# **Electrical Characteristics**

# Voltage

| UL Voltage Rating               | Voltage Rating  |
|---------------------------------|---|
| 1000 V (Max. Operating Voltage) | 600/1000 V (Max. Operating Voltage), 4000 V (Testing Voltage) |

# **Mechanical Characteristics**

#### Temperature

| Operating                            | Installation                        |
|--------------------------------------|-------------------------------------|
| -5°C to +80 °C (Occasional movement) | -40°C to +80°C (Fixed installation) |

#### Bend Radius

| 85.8 mm (3.38 in) 214.5 mm (8.445 in) |                |  |  |  |  |
|---------------------------------------|----------------|--|--|--|--|
| ( , , ,                               | . ( /          |  |  |  |  |
| Bulk Cable Weight:                    | 340 kg/km (230 |  |  |  |  |

## **Standards and Compliance**

Installation Min. Flexing Min.

| Environmental Suitability:        | Sunlight Resistance, UV Resistance, Oil Resistance - 70°C x 4h                                   |  |  |
|-----------------------------------|--|--|--|
| Flammability / Reaction to Fire:  | VW-1, FT1, IEC 60332-1-2, DIN VDE 0482-332-1-2, DIN EN 60332-1-2                                 |  |  |
| AWM Compliance:                   | AWM 2570   |  |  |
| CENELEC Compliance:               | EN 50290-2-25EN 50363-4-1  |  |  |
| European Directive<br>Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2) |  |  |

### History

| Update and Revision: | Revision Number: 0.109 Revision Date: 11-29-2023 |
|----------------------|--|
|                      |  |

## **Part Numbers**

#### Variants

| Item #           | Color            | Length |
|------------------|------------------|--------|
| MSHCY016 003100M | Orange, RAL 2003 | 100 m  |
| MSHCY016 003200M | Orange, RAL 2003 | 200 m  |
| MSHCY016 003300M | Orange, RAL 2003 | 300 m  |

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