



**Product:** [MRTB6C15S](#)

MachFlex™ Robotic Multi-Core Control, 6 C 15 AWG Str TC, ETFE Ins, TCBS, PVC Outer Jkt

## Product Description

MachFlex™ Robotic Multi-Core Control & Signal Cable, 6 Conductor 15 AWG Stranded Tinned Copper, ETFE Insulation, Tinned Copper Braid Shield, PVC Outer Jacket

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | MachFlex Robotic AWM 2586, Multi-Core Cables are meeting the high demands of the robotic industry on the cabling of continuous moving machinery and the corresponding robotic components. These cables are specially designed for high mechanical requirements, they can withstand highly dynamic bending and torsional movements, and can be used in crucial industrial environments. |
|------------------------|--|

### Construction Details

#### Conductor

| Element      | No. of Elements | Size   | Stranding | Stranding Class | Material           |
|--------------|-----------------|--------|-----------|-----------------|--------------------|
| Conductor(s) | 6               | 15 AWG | Stranded  | Class 6         | TC - Tinned Copper |

#### Insulation

| Material                            | Color Code                             |
|-------------------------------------|--|
| ETFE - Ethylene Tetrafluoroethylene | Black, White, Red, Green, Orange, Blue |

#### Outer Shield

| Shield Type | Material           |
|-------------|--------------------|
| Braid       | Tinned Copper (TC) |

#### Outer Jacket

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

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 10.2 mm (0.402 in) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR          |
|-----------------------------|
| 9.9 Ohm/km (3.0 Ohm/1000ft) |

#### Voltage

| UL Voltage Rating              |
|--------------------------------|
| 600 V (Max. Operating Voltage) |

### Mechanical Characteristics

#### Temperature

| Operating      |
|----------------|
| 40°C to +105°C |

|              |   |
|--------------|---|
| Table Notes: | ±90° Bending: Min. 8 million cycles (Speed: 60 cycles/min.; Bending radius: 7.5D) ; Drag Chain: Min. 25 million cycles (Traversing distance: 350mm; Speed: 70 cycles/min; Bending radius: 6D) ; Vertical Torsion Test +/-180°/m: Min. 8 million cycles ; Horizontal Torsion Test +/-90°/m: Min. 8 million cycles. |
|--------------|---|

|                    |                            |
|--------------------|----------------------------|
| Bulk Cable Weight: | 210 kg/km (140 lbs/1000ft) |
|--------------------|----------------------------|

## Standards and Compliance

|                                  |  |
|----------------------------------|--|
| Environmental Suitability:       | IndoorOutdoor, Indoor, Outdoor, Oil Resistance |
| Flammability / Reaction to Fire: | FT1, FT4, VW-1, IEC 60332-1-2                  |
| AWM Compliance:                  | AWM 2586                                       |
| CEC / C(UL) Compliance:          | CSA C22.2 No.210                               |
| European Directive Compliance:   | EU Directive 2011/65/EU (RoHS 2)               |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                |

## Product Notes

|        |   |
|--------|---|
| Notes: | UL certification : UL 13. Suitability -Oil Resistant : IRM 902 120x18hrs, IRM 903 120x18hrs |
|--------|---|

## History

|                      |   |
|----------------------|---|
| Update and Revision: | Revision Number: 0.20 Revision Date: 05-31-2024 |
|----------------------|---|

## Part Numbers

### Variants

| Item #            | Color  | Length |
|-------------------|--------|--------|
| MRTB6C15S G8U100M | Gray   | 100 m  |
| MRTB6C15S G8U200M | Gray   | 200 m  |
| MRTB6C15S G8U300M | Gray   | 300 m  |
| MRTB6C15S 003100M | Orange | 100 m  |
| MRTB6C15S 003200M | Orange | 200 m  |
| MRTB6C15S 003300M | Orange | 300 m  |

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