



**Product:** [MRTA5P23U](#)

MachFlex™ Robotic Multi-Pair Control, 5 Pr 23 AWG Str TC, ETFE Ins, PVC Outer Jkt

### Product Description

MachFlex™ Robotic Multi-Pair Control & Signal Cable, 5 Pair 23 AWG Stranded Tinned Copper, ETFE Insulation, PVC Outer Jacket

### Technical Specifications

#### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | MachFlex Robotic AWM 20276, Multi-Pair 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 | Material           |
|---------|-----------------|--------|-----------|--------------------|
| Pair(s) | 5               | 23 AWG | Stranded  | TC - Tinned Copper |

##### Insulation

| Material                            | Color Code   |
|-------------------------------------|--|
| ETFE - Ethylene Tetrafluoroethylene | 1. Black&Brown, 2. Black&Red, 3. Black&Orange, 4. Black&Yellow, 5. Black&Green |

##### Outer Jacket

| Material                          |                  |
|-----------------------------------|------------------|
| PVC - Polyvinyl Chloride          |                  |
| Overall Cable Diameter (Nominal): | 5.3 mm (0.21 in) |

#### Electrical Characteristics

##### Electricals

| Max. Conductor DCR            |
|-------------------------------|
| 74.5 Ohm/km (22.7 Ohm/1000ft) |

##### Voltage

| UL Voltage Rating             |
|-------------------------------|
| 30 V (Max. Operating Voltage) |

#### Mechanical Characteristics

##### Temperature

| Operating          |  |
|--------------------|--|
| -40°C to +80°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: | 53.4 kg/km (35.9 lbs/1000ft)   |

#### Standards and Compliance

|                            |   |
|----------------------------|---|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Oil Resistance |
|----------------------------|---|

|                                  |                                  |
|----------------------------------|----------------------------------|
| Flammability / Reaction to Fire: | FT1, VW-1, IEC 60332-1-2         |
| AWM Compliance:                  | AWM 20276                        |
| 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: | Suitability -Oil Resistant : IRM 902 120x18hrs, IRM 903 120x18hrs |
|--------|---|

## History

|                      |   |
|----------------------|---|
| Update and Revision: | Revision Number: 0.32 Revision Date: 05-31-2024 |
|----------------------|---|

## Part Numbers

### Variants

| Item #            | Color  | Length |
|-------------------|--------|--------|
| MRTA5P23U G8U100M | Gray   | 100 m  |
| MRTA5P23U G8U200M | Gray   | 200 m  |
| MRTA5P23U G8U300M | Gray   | 300 m  |
| MRTA5P23U 003100M | Orange | 100 m  |
| MRTA5P23U 003200M | Orange | 200 m  |
| MRTA5P23U 003300M | Orange | 300 m  |

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