



Product: [76605TS](#)

MachFlex™, 5 Pr #24 Str TC, SRPVC Ins, OS+TC Brd, PVC Jkt, CMG

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Product Description

MachFlex™ for High Flex, 5 Pair 24AWG (10x34) Tinned Copper, SRPVC Insulation, Overall Beldfoil®+Tinned Copper Braid(85%) Shield, PVC Outer Jacket, CMG

Technical Specifications

Product Overview

|                        |                                  |
|------------------------|----------------------------------|
| Suitable Applications: | Robotics, Robot, Continuous Flex |
|------------------------|----------------------------------|

Physical Characteristics (Overall)

Conductor

| Element                | AWG | Stranding | Material           | No. of Pairs |
|------------------------|-----|-----------|--------------------|--------------|
| Conductor(s)           | 24  | 10x34     | TC - Tinned Copper | 5            |
| Conductor Count:       |     |           |                    | 10           |
| Total Number of Pairs: |     |           |                    | 5            |

Insulation

| Element      | Material                 | Nominal Diameter | Nominal Wall Thickness |
|--------------|--------------------------|------------------|------------------------|
| Conductor(s) | PVC - Polyvinyl Chloride | 0.044 in         | 0.010 in               |

Outer Shield

| Type  | Material                | Coverage [%] | Drainwire Material | Drainwire AWG |
|-------|-------------------------|--------------|--------------------|---------------|
| Tape  | Bi-Laminate (Alum+Poly) | 100%         | TC - Tinned Copper | 26            |
| Braid | Tinned Copper (TC)      | 85%          |                    |               |

Outer Jacket

| Material                 | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.314 in         | 0.040 in               |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 29 Ohm/1000ft         | 3.2 Ohm/1000ft           |

Capacitance

| Nom. Capacitance Conductor to Conductor |
|---|
| 25 pF/ft                                |

Inductance

| Nominal Inductance |
|--------------------|
| .19 µH/ft          |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 76 Ohm                           |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V             |

Temperature Range

|                              |   |
|------------------------------|---|
| UL Temp Rating:              | 105°C   |
| Operating Temperature Range: | -10°C To 105°C (Static), 5°C To 105°C (Flexing) |

Mechanical Characteristics

|  |                  |
|--|------------------|
| Flex Cycle Rating:                     | 6 Million Cycles |
| Bulk Cable Weight:                     | 58 lbs/1000ft    |
| Max. Pull Tension:                     | 40 lbs           |
| Min. Bend Radius (Continuous Flexing): | 4.7 in           |
| Min. Bend Radius/Minor Axis:           | 3.1 in           |

Standards

|                          |                     |
|--------------------------|---------------------|
| NEC/(UL) Compliance:     | CM                  |
| CEC/C(UL) Compliance:    | CMG                 |
| UL AWM Style Compliance: | AWM 2661, AWM 10002 |
| CSA AWM Compliance:      | AWM I/II A/B        |

Applicable Environmental and Other Programs

|  |                               |
|--|-------------------------------|
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/11/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |

Suitability

|                                    |     |
|------------------------------------|-----|
| Suitability - Sunlight Resistance: | Yes |
|------------------------------------|-----|

Flammability, LSOH, Toxicity Testing

|                    |           |
|--------------------|-----------|
| CSA Flammability:  | FT4       |
| UL voltage rating: | 300 V RMS |

Related Part Numbers

Variants

| Item #          | Color | Put-Up Type | UPC          |
|-----------------|-------|-------------|--------------|
| 76605TS 008100  | Gray  | Reel        | 612825411635 |
| 76605TS 0081000 | Gray  | Reel        | 612825411642 |

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.132 Revision Date: 03-27-2024 |
|----------------------|--|

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