



Product: [76405TS](#)

MachFlex™, 5 Pr #28 Str TC, SRPVC Ins, OS+TC Brd, PVC Jkt, CMG

[Request Sample](#)

Product Description

MachFlex™ for High Flex, 5 Pair 28AWG (7x36) 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) | 28 | 7x36 | 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 | 0.035 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 | 0.274 in | 0.040 in |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Outer Shield DCR |
|-----------------------|--------------------------|
| 67 Ohm/1000ft | 3.2 Ohm/1000ft |

Capacitance

| Nom. Capacitance Conductor to Conductor |
|---|
| 21.0 pF/ft |

Inductance

| Nominal Inductance |
|--------------------|
| .22 µH/ft |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 90 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: | 43 lbs/1000ft |
| Max. Pull Tension: | 21.2 lbs |
| Min. Bend Radius (Continuous Flexing): | 4.1 in |
| Min. Bend Radius/Minor Axis: | 2.7 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 |
|-----------------|-------|-------------|--------------|
| 76405TS 008100 | Gray | Reel | 612825411246 |
| 76405TS 0081000 | Gray | Reel | 612825411253 |
| 76405TS 008500 | Gray | Reel | 612825411260 |

History

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| Update and Revision: | Revision Number: 0.133 Revision Date: 03-27-2024 |
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