



Product: [3076F](#)

Fieldbus, 1 Pr #18 Str TC, PP Ins, OS, PVC Jkt, Flexible SUN RES OIL RES, PLTC-ER, ITC-ER, CMX-Outdoor, CM

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Product Description

Fieldbus, 1 Pair 18AWG (7x26) Tinned Copper, PP Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, Flexible SUN RES OIL RES, PLTC-ER, ITC-ER, CMX-Outdoor, CM

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | exposure to rodent, crush, or cut through force, harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc. |
|------------------------|---|

Construction Details

Conductor

| Element | Number of Element | Size | Stranding | Material |
|---------|-------------------|--------|-----------|--------------------|
| Pair(s) | 1 | 18 AWG | 7x26 | TC - Tinned Copper |

Insulation

| Element | Material | Nom. Thickness | Nom. Insulation Diameter | Color Code |
|---------|--------------------|--------------------|--------------------------|---------------|
| Pair(s) | PP - Polypropylene | 0.022 in (0.56 mm) | 0.088 in (2.2 mm) | Blue & Orange |

Outer Shield

| Shield Type | Material | Coverage | Drainwire Type |
|-------------|-------------------------|----------|------------------|
| Tape | Bi-Laminate (Alum+Poly) | 100% | 20 AWG (7x28) TC |

Outer Jacket

| Material | Nom. Thickness | Nom. Diameter |
|--------------------------|-------------------|--------------------|
| PVC - Polyvinyl Chloride | 0.050 in (1.3 mm) | 0.280 in (7.11 mm) |

| | |
|-----------------------------------|---------------------|
| Table Notes: | Jacket OD +/- 0.010 |
| Overall Cable Diameter (Nominal): | 0.280 in (7.11 mm) |

Electrical Characteristics

Electricals

| Element | Nom. Conductor DCR | Max. Capacitance Unbalance | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. | Max. Current |
|---------|--------------------|----------------------------|---------------------------------|-------------------------------|------------------------|--------------------------------|
| Pair(s) | 7.2 Ohm/1000ft | 1.2 pF/ft (3.9 pF/m) | 45 pF/ft | 100 Ohm | 66% | 5.2 Amps per Conductor at 25°C |

| | |
|------------------------|----------------------------|
| Nom. Outer Shield DCR: | 8.5 Ohm/1000ft (28 Ohm/km) |
|------------------------|----------------------------|

High Frequency (Nominal/Typical)

| Element | Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|---------|-----------------|-----------------------------------|
| Pair(s) | 0.039 | 0.08 dB/100ft |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Max./Min. Input Impedance (unFitted) [Ohm] |
|-----------------|-----------------------------------|--|
| 0.031 | 0.091 dB/100ft | 100 |

Voltage

UL Voltage Rating

300 V (CM, PLTC-ER), 150 V (ITC-ER)

Mechanical Characteristics**Temperature**

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

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 6.5 in (170 mm) | 6.5 in (170 mm) |

| | |
|--------------------|----------------|
| Max. Pull Tension: | 60 lbs (27 kg) |
| Bulk Cable Weight: | 44 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Oil Resistance, Burial |
| Flammability / Reaction to Fire: | UL 1685 UL Loading, FT4, FT4, IEEE 1202, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| NEC / UL Compliance: | Article 725, Article 727, Article 800, CMG, ITC, PLTC, TC |
| CEC / C(UL) Compliance: | CMG |
| ISO/IEC Compliance: | IEC 61158-2 |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| Other Standard Compliance(s): | ISA/SP-50 Type A |

Product Notes

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|--------|---|
| Notes: | Fieldbus: Orange jacket. Profibus PA: Intrinsically Safe Blue jacket. Jacket diameter tolerance: +/- .010 |
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History

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| Update and Revision: | Revision Number: 0.485 Revision Date: 08-09-2022 |
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Part Numbers**Variants**

| Item # | Color | Putup Type | Length | UPC |
|----------------|-------------|------------|----------|--------------|
| 3076F 0061000 | Blue, Light | Reel | 1,000 ft | 612825140269 |
| 3076F 00310000 | Orange | | | 612825140214 |
| 3076F 003250 | Orange | Reel | 250 ft | 612825140221 |
| 3076F 003500 | Orange | Reel | 500 ft | 612825140245 |
| 3076F 0031000 | Orange | Reel | 1,000 ft | 612825140207 |
| 3076F 0032500 | Orange | Reel | 2,500 ft | 612825140238 |
| 3076F 0035000 | Orange | Reel | 5,000 ft | 612825140252 |

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