



REPRESENTATIVE IMAGE

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	Color Code
Pair(s)	PP - Polypropylene	0.022 in (0.56 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)

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)	5.86 Ohm/1000ft (19.2 Ohm/km)	1.2 pF/ft (3.9 pF/m)	45 pF/ft	100 Ohm	66%	5.2 Amps per Conductor

Nom. Outer Shield DCR: 7.5 Ohm/1000ft (25 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)
0.031	0.091 dB/100ft	100 Ohm

Voltage

UL Voltage Rating

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

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

Max. Pull Tension:	60 lbs (27 kg)
Bulk Cable Weight:	38 lbs/1000ft (57 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Oil Resistance, Burial
Flammability / Reaction to Fire:	UL 1666 Riser, FT4, FT4, IEEE 1202, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 725, Article 727, Article 800, CM, CMX-Outdoor, ITC-ER, PLTC-ER
CEC / C(UL) Compliance:	CMG
IEEE Compliance:	1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU)
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

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

Update and Revision:	Revision Number: 0.441 Revision Date: 12-15-2021
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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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