



Product: [3077E](#)

Fieldbus, 1 Pr #22 Str TC, PP Ins, OS, PVC Jkt, Flexible, PLTC, ITC, CM

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Product Description

Fieldbus, 1 Pair 22AWG (7x30) Tinned Copper, PP Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, Flexible, PLTC, ITC, CM

Technical Specifications

Product Overview

Suitable Applications: 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	No. of Elements	Size	Stranding	Material
Pair(s)	1	22 AWG	7x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code
Pair(s)	PP - Polypropylene	0.015 in (0.38 mm)	Blue & Orange

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.037 in (0.94 mm)	0.197 in (5.00 mm)

Overall Cable Diameter (Nominal): 0.197 in (5.00 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Max. Capacitance Unbalance	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Pair(s)	17.1 Ohm/1000ft (56.1 Ohm/km)	1.2 pF/ft (3.9 pF/m)	44 pF/ft	100 Ohm	66%	2.5 Amps per Conductor

Nom. Outer Shield DCR: 11.4 Ohm/1000ft (37.4 Ohm/km)

High Frequency (Nominal/Typical)

Element	Frequency [MHz]	Nom. Insertion Loss (Attenuation)
Pair(s)	0.039	0.14 dB/100ft

High Frequency

Max. Insertion Loss (Attenuation)	Max./Min. Input Impedance (unFitted)
0.152 dB/100ft	100 Ohm

Voltage

UL Voltage Rating
300 V (CM, PLTC), 150 V (ITC)

Mechanical Characteristics

Temperature

UL Temperature	Operating
105°C	-30°C to +105°C

Max. Pull Tension:	27 lbs (12 kg)
Bulk Cable Weight:	18 lbs/1000ft (27 kg/km)

Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL1685 UL Loading, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 725, Article 727, Article 800, CM, ITC, PLTC
CEC / C(UL) Compliance:	CM
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)
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	CPE & Low Smoke Jacket optional.
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History

Update and Revision:	Revision Number: 0.523 Revision Date: 04-30-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
3077F 003500	Orange	Reel	500 ft	612825140306	C N
3077F 0031000	Orange	Reel	1,000 ft	612825140290	C N

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