



Product: [3077E](#)

Fieldbus, 1 Pr #22 Str TC, PO Ins, OS, PVC Jkt, Flexible

[Request Sample](#)

Product Description

Fieldbus, 1 Pair 22AWG (7x30) Tinned Copper, PO Insulation, Overall Beldfoil® Shield, Orange PVC Outer Jacket, Flexible

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.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
22	7x30	TC - Tinned Copper	1

Conductor Count:	2
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Insulation

Material	Nominal Wall Thickness
PP - Polypropylene	0.015 in

Color Chart

Number	Color
1	Blue & Orange

Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	22	7x28

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.196 in	0.037 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
17.1 Ohm/1000ft	11.4 Ohm/1000ft

Capacitance

Max. Capacitance Unbalance	Nom. Capacitance Conductor to Shield	Nom. Mutual Capacitance
1.2 pF/ft	44 pF/ft	23.5 pF/ft

Inductance

Nominal Inductance
0.2 µH/ft

Impedance

Nominal Characteristic Impedance

100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.039 MHz	0.14 dB/100ft

Delay**Nominal Velocity of Propagation (VP) [%]**

66 %

High Freq

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

Current

Element	Max. Recommended Current [A]
Per Conductor	2.5 Amps per Conductor

Voltage**UL Voltage Rating**

300 V RMS

Electrical Characteristics Notes:	31.25 KBits/sec
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Temperature Range

UL Temp Rating:	105°C
Operating Temp Range:	-30°C To +105°C

Mechanical Characteristics

Bulk Cable Weight:	18 lbs/1000ft
Max Recommended Pulling Tension:	27 lbs
Min Bend Radius/Minor Axis:	2.2 in

Standards

NEC Articles:	725, 727, 800
NEC/(UL) Specification:	CM, ITC, PLTC
CEC/C(UL) Specification:	CM
CPR Euroclass:	Eca

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 II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

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

Footnote: C - CRATE REEL PUT-UP.

Footnote: N - FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

Product Notes

Notes: Tape around pair has shorting fold. CPE & LSOH Jacket optional.

History

Update and Revision: Revision Number: 0.336 Revision Date: 04-28-2020

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