



Product: [3077E](#)

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

[Request Sample](#)

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.
--------	----------------------------------

History

Update and Revision:	Revision Number: 0.524 Revision Date: 02-03-2025
----------------------	--

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

© 2025 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.