



Part Number: 3077F

ISA/SP-50 FOUNDATION Fieldbus, (1 pr) 22 AWG (7x30) TC, PO/PVC, Foil Shld, CM, PLTC

Product Description

One 22 AWG pair stranded (7x30) tinned copper conductors, polyolefin insulation, overall Beldfoil® shield (100% coverage), PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

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

Total Number of Conductors: 2

Insulation

Material	Nominal Wall Thickness
PO - Polyolefin	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	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	20	7x28 mm

Outer Jacket Material

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

Electrical Characteristics

Capacitance

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

Construction and Dimensions

Stranding

Lay Length
1.5 in

Print Legend: BELDEN 3077F DATABUS(R) 31.25 KB/S E34972 2C22 SHIELDED (UL) 105C PLTC OR ITC SUN RES OR CM OR C(UL) CM (2 FT, 7 DIGIT SEQUENTIAL NUMBER) FEET

Conductor DCR

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

Impedance

Nominal Characteristic Impedance

100 Ohms

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

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Max./Min. Input Impedance (unFitted)
	0.152 dB/100ft	100 Ohm
0.03125 MHz		
0.039 MHz		
0.039 MHz		

Current**Element | Max. Recommended Current [A]**

Per Conductor | 2.5 Amps per Conductor

Inductance**Nominal Inductance**

0.2 µH/ft

Voltage**UL Voltage Rating**

300V RMS

Applicable Standards & Environmental Programs

CEC/C(UL) Specification:	CM
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
CPR Euroclass:	Eca
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Standards

NEC Articles:	725, 727, 800
NEC/(UL) Specification:	CM, ITC, PLTC

Flame Test

UL Flammability:	UL1685 UL Loading
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Safety

UL Voltage Rating:	300 V RMS
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Mechanical Characteristics

Operating Temp Range:	-30°C To +105°C
Bulk Cable Weight:	18(lbs/1000ft)
Max Recommended Pulling Tension:	27(lbs)
Min Bend Radius/Minor Axis:	2.2(in)

Temperature Range

UL Temp Rating:	105°C
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Plenum/Non-Plenum

Plenum (Y/N):	No
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History

Variants

Item #	Color
3077F 0031000	ORANGE
3077F 003500	ORANGE

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