# **Detailed Specifications & Technical Data**

## METRIC MEASUREMENT VERSION



# 3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable





For more Information please call

1-800-Belden1



## **General Description:**

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

Physical Characteristics (Overall)	
Conductor AWG:	
# Pairs AWG Stranding Conductor Material Dia. (mm)	
1 22 7x30 TC - Tinned Copper 0.762	
Total Number of Conductors:	2
Insulation	
Insulation Material: Insulation Material	
PO - Polyolefin	
Outer Shield Outer Shield Material:	
Outer Shield Trade Name         Type         Outer Shield Material         Cov           Beldfoil®         Tape         Aluminum Foil-Polyester Tape         100	erage (%)
Outer Shield Drain Wire AWG:	
AWG Stranding Drain Wire Conductor Material 20   7x28   TC - Tinned Copper	
Outer Jacket	
Outer Jacket Material:	
Outer Jacket Material PVC - Polyvinyl Chloride	
Overall Cable	
Overall Nominal Diameter:	4.978 mm
Pair	
Pair Color Code Chart:  Number Color	
1 Blue & Orange	
Pair Lay Length & Direction:	
Lay Length (mm) 38.1	
36.1	
Mechanical Characteristics (Overall)	
Operating Temperature Range:	-30°C To +105°C
UL Temperature Rating:	105°C
Bulk Cable Weight:	26.788 Kg/Km
Max. Recommended Pulling Tension:	120.101 N
Min. Bend Radius/Minor Axis:	55.880 mm
Applicable Specifications and Agency Compliance (Ov	erall)
Applicable Standards & Environmental Programs	
NEC/(UL) Specification:	CM, ITC, PLTC
NEC Articles:	725, 727, 800
CEC/C(UL) Specification:	CM
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes

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EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

#### Flame Test

UL Flame Test: UL1685 UL Loading

#### Plenum/Non-Plenum

Plenum (Y/N): No

# Surface Printing (Overall)

#### **Electrical Characteristics (Overall)**

Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
	.03125			100

Nom. Inductance:

Inductance (µH/m) 0.6562

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m) 144.364

Nom. Mutual Capacitance:

Capacitance (pF/m) 77.1035

Maximum Capacitance Unbalance:

Capacitance (pF/m) 3.9372

Nominal Velocity of Propagation:

**VP (%)** 

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 56.1051

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C:

37.403 Ohm/km

Nom. Attenuation:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100m)
	.039			0.45934

Max. Attenuation:

() Freq. (MHz) Attenuation (dB/100m) | 0.498712 | 0.039 | 0.499

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

DescriptionCurrentPer Conductor2.5 Amps

Other Electrical Characteristic 2:

31.25 KBits/sec

### Notes (Overall)

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

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3077F 0031000	1,000 FT	23.000 LB	ORANGE	CN	TWPR #22 PP FS PVC
3077F 003500	500 FT	11.000 LB	ORANGE	CN	TWPR #22 PP FS PVC

Notes:

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C = CRATE REEL PUT-UP.

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

Revision Number: 1 Revision Date: 03-09-2011

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