Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



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





For more Information please call

1-800-Belden1



General Description:

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

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Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
1	22	7x30	TC - Tinned Copper	.030

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

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: 0.196 in.

Pair

Pair Color Code Chart:



Pair Lay Length & Direction:

Lay Length (in.) 1.500

Mechanical Characteristics (Overall)

•		
Operating Temperature Range:	-30°C To +105°C	
UL Temperature Rating:	105°C	
Bulk Cable Weight:	18 lbs/1000 ft.	
Max. Recommended Pulling Tension:	27 lbs.	
Min. Bend Radius/Minor Axis:	2.200 in.	

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Applicable Specifications and Agency Compliance (Overall)						
Ap	pplicable 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				
	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				
Fla	ime Test					
	UL Flame Test:	UL1685 UL Loading				
Ple	enum/Non-Plenum					
	Plenum (Y/N):	No				
Sur	face Printing (Overall)					
	Surface Printing:	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				

Electrical Characteristics (Overall)

Unaveraged Impedance:

Description Fre	q. (MHz) Start	Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
.03	125			100

Nom. Inductance:



Nom. Capacitance Conductor to Shield:



Nom. Mutual Capacitance:



Maximum Capacitance Unbalance:



Nominal Velocity of Propagation:



Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 17.1

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

11.400 Ohm/1000 ft

Nom. Attenuation:

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Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Attenuation (dB/100 ft.)
	.039			.14

Max. Attenuation:

()	Freq. (MHz)	Attenuation (dB/100 ft.)
.152	0.039	0.152

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Description	Current
Per Conductor	2.5 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:

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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