# **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



# **Description:**

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	<b>Conductor Material</b>	Dia. (in.)
1	22	7x30	TC - Tinned Copper	.030

#### Insulation

**Insulation Material:** 



#### **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 Cabling**

Overall Nominal Diameter: 0.196 in.

#### Pair

### **Pair Color Code Chart:**



#### Pair Lay Length & Direction:

Lay Length (in.) 1.500

Mechanical	Characteri	istics (Overal	I)
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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 (Install)/Minor Axis:	2.200 in.

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Applicable Specifications and Agency Compliance (Overall)							
Applicable Standards & Environmental Programmental Programment	Applicable Standards & Environmental Programs						
NEC/(UL) Specification:	CM, ITC, PLTC						
NEC Articles:	725, 727, 800						
CEC/C(UL) Specification:	CM						
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						
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/ft)

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft) 44.0

Nom. Mutual Capacitance:

Capacitance (pF/ft) 23.5

**Maximum Capacitance Unbalance:** 

Capacitance (pF/ft)
1.2

Nominal Velocity of Propagation:

**VP (%)**66

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 17.1

Ind. Pair Nominal Shield DC Resistance @ 20 11.400 Ohm/1000 ft Deg. C:

Nom. Attenuation:

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

Max. Attenuation:

() Freq. (MHz) Attenuation (dB/100 ft.)

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.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

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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