# **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



# **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	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	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: 4.978 mm

### Pair

**Pair Color Code Chart:** 



## Pair Lay Length & Direction:

Lay Length (mm) 38.1

Mec	nani	ical	C	hara	cter	ist	ics (	C	)veral	I)
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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

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# **Applicable Specifications and Agency Compliance (Overall)**

# Applicable Standards & Environmental Programs

pplicable 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				
ame Test					
UL Flame Test:	UL1685 UL Loading				
enum/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 (%)** 66

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 56.1051

Ind. Pair Nominal Shield DC Resistance @ 20 37.403 Ohm/km Deg. C:

Nom. Attenuation:

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

Max. Attenuation:

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

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

0.498712 0.039 0.499

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Description 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	305 MT	10.433 KG	ORANGE	CN	TWPR #22 PP FS PVC
3077F 003500	152 MT	4.990 KG	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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