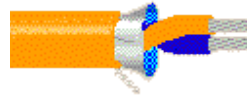
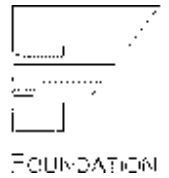


## 3077F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable



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.

### 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:

Number	Color
1	Blue & Orange

Pair Lay Length & Direction:

Lay Length (mm)
38.1

### 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 (Overall)

### 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
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
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### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Surface 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
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## 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
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### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)	144.364
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### Nom. Mutual Capacitance:

Capacitance (pF/m)	77.1035
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### Maximum Capacitance Unbalance:

Capacitance (pF/m)	3.9372
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### Nominal Velocity of Propagation:

VP (%)	66
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### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)	56.1051
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Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C:	37.403 Ohm/km
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### Nom. Attenuation:

METRIC MEASUREMENT VERSION

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

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:**

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	C N	TWPR #22 PP FS PVC
3077F 003500	500 FT	11.000 LB	ORANGE	C N	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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