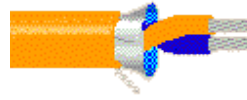


## 3078F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable



For more Information  
please call

1-800-Belden1



### General Description:

22 AWG stranded (7x30) tinned copper conductors, FHDPE 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
FHDPE - Foam High Density Polyethylene

#### 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: 8.915 mm

#### Pair

##### Pair Color Code Chart:

Number	Color
1	Blue & Orange

##### Pair Lay Length & Direction:

Lay Length (mm)
101.6

### Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 59.528 Kg/Km

Max. Recommended Pulling Tension: 142.342 N

Min. Bend Radius/Minor Axis: 88.900 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

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 3078F DATABUS(R) 1PR22 SHIELDED (UL) CM 75C E108998 OR PLC SUN RES OR C(UL) CM 75C
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### Electrical Characteristics (Overall)

#### Unaveraged Impedance:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
	1.0			150

#### Nom. Inductance:

Inductance (µH/m)	0.9843
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#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)	52.496
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#### Nom. Mutual Capacitance:

Capacitance (pF/m)	27.8885
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#### Maximum Capacitance Unbalance:

Capacitance (pF/m)	1.50926
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#### Nominal Velocity of Propagation:

VP (%)	78
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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: 10.827 Ohm/km

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
.25	0.59058
.625	0.85306

METRIC MEASUREMENT VERSION

## 3078F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus Cable

1.25	1.11554
3.125	1.80455

**Max. Attenuation:**

( )	Freq. (MHz)
1.00071	.625
1.29928	1.25
2.00141	3.125

**Max. Operating Voltage - UL:**

Voltage
300 V RMS

**Max. Recommended Current:**

Description	Current
Per Conductor	2.5 Amps

**Other Electrical Characteristic 1:** ISA/IEC SP50 Requirements: Impedance @ 250 kHz, 625 kHz, 1.25 MHz, and 3.125 MHz: 150 +/- 10% Ohms

**Other Electrical Characteristic 2:** 1.0 and 2.5 Mbits/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
3078F 0031000	1,000 FT	47.000 LB	ORANGE	C	#22 PR FPE/LDPE FS PVC
3078F 0032500	2,500 FT	122.500 LB	ORANGE	C	#22 PR FPE/LDPE FS PVC
3078F 003500	500 FT	24.500 LB	ORANGE	C	#22 PR FPE/LDPE FS PVC

**Notes:**  
C = CRATE REEL PUT-UP.

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