



**Part Number:** 3078F

FOUNDATION Fieldbus, (1 pr) 22 AWG (7x30) TC, FHDPE/PVC, Foil Shld, CMG, CMX-Outdoor, PLTC-ER

## Product Description

One 22 AWG pair stranded (7x30) tinned copper conductors, foam high density polyethylene (FHDPE) insulation, overall Beldfoil® shield (100% coverage), PVC jacket.

## Product Specifications

## Technical Specifications

### Construction and Dimensions

#### Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
22	7x30	TC - Tinned Copper	0.03 in	1
<b>Total Number of Conductors:</b>				2

#### Insulation:

Material
FHDPE - Foam High Density Polyethylene

#### Color Chart 1:

Number	Color
1	Blue & Orange

#### Stranding:

Lay Length
4 in

### Outershield 1:

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	20	7x28 mm

### Outerjacket 1:

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.351 in
<b>Print Legend:</b>	BELDEN 3078F DATABUS(R) 1PR22 SHIELDED (UL) CM 75C E108998 OR PLC SUN RES OR C(UL) CM 75C

## Electrical Characteristics

### Conductor DCR:

Individual Pair Nominal Shield DCR	Nominal Conductor DCR
3.3 Ohm/1000ft	17.1 Ohm/1000ft

### Capacitance:

Max. Capacitance Unbalance	Nom. Capacitance Conductor to Shield	Nom. Mutual Capacitance
0.46 pF/ft	16 pF/ft	8.5 pF/ft
<b>Other Electrical Characteristic 1:</b>	ISA/IEC SP50 Requirements: Impedance @ 250 kHz, 625 kHz, 1.25 MHz, and 3.125 MHz: 150 +/- 10% Ohms	
<b>Other Electrical Characteristic 2:</b>	1.0 and 2.5 MBits/sec	

### High Frequency (Nominal/Typical):

Nom. Insertion Loss
0.18 db/100ft
0.26 db/100ft
0.34 db/100ft
0.55 db/100ft

### Delay:

Nominal Velocity of Propagation (VP) [%]
78 %

### High Freq:

Frequency [MHz]	Max./Min. Input Impedance (unFitted)
	150 Ohm
1 MHz	
0.25 MHz	
0.625 MHz	
1.25 MHz	
3.125 MHz	
0.625 MHz	
1.25 MHz	
3.125 MHz	

**Current:**

Element	Max. Recommended Current [A]
Per Conductor	2.5 Amps

**Inductance:**

Nominal Inductance
0.3 $\mu$ H/ft

**Voltage:**

UL Voltage Rating
300 V RMS

**Use**

Max Recommended Pulling Tension:	32 lbs
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**Safety**

UL Flammability:	UL1685 UL Loading
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**Temperature Range**

Operating Temp Range:	-40°C To +75°C
UL Temp Rating:	75°C

**Mechanical Characteristics**

Min Bend Radius/Minor Axis:	3.5 in
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**Part Number**

Plenum (Y/N):	No
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## Standards

CA Prop 65 (CJ for Wire & Cable):	CA Prop 65 (CJ for Wire & Cable)
CEC/C(UL) Specification:	CEC/C(UL) Specification
MII Order #39 (China RoHS):	MII Order #39 (China RoHS)
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	EU CE Mark

## History

Notes:	Tape around pair has shorting fold. CPE & LSOH Jacket optional.
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## Product Variants

Part Number	Color	Put-Up Type	Length
3078F 0031000	ORANGE	Reel	1000 ft
3078F 0032500	ORANGE	Reel	2500 ft
3078F 003500	ORANGE	Reel	500 ft

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