

## 3076F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable



For more Information  
please call

1-800-Belden1



### General Description:

1 pair 18 AWG stranded (7x26) tinned copper conductors, polyolefin insulation, polyolefin filler, Beldfoil® shield (100% coverage), tinned copper drain wire, binder, PVC jacket. Fieldbus Foundation Registered Product.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
1	18	7x26	TC - Tinned Copper	1.168

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

Outer Jacket Diameter:

Nom. Dia. (mm)
7.112

#### Overall Cable

Overall Cabling Fillers: Polypropylene

Overall Cabling Lay Length & Direction:

Length (mm)	Twists (twist/m)
57.150	17.3893

### Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +105°C

UL Temperature Rating: 105°C

Bulk Cable Weight: 56.552 Kg/Km

Max. Recommended Pulling Tension: 266.892 N

Min. Bend Radius/Minor Axis: 63.500 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC(UL) Specification: CM, CMX-Outdoor, PLTC-ER

NEC Articles: 725, 727, 800

CEC/C(UL) Specification: CMG

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

## METRIC MEASUREMENT VERSION

### 3076F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

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
Other Specification:	ITC-ER

#### Flame Test

UL Flame Test:	UL1666 Riser
C(UL) Flame Test:	FT4
IEEE Flame Test:	1202, IEEE 383 Vertical Tray Flame Test (70,000 BTU)

#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Burial:	Yes - UL
Sunlight Resistance:	Yes
Oil Resistance:	Yes

#### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Electrical Characteristics (Overall)

#### Unaveraged Impedance:

Freq. (MHz)	Impedance (Ohm)
0.031	100.000

#### Nom. Inductance:

Inductance (µH/m)
0.62339

#### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
147.645

#### Nom. Mutual Capacitance:

Capacitance (pF/m)
78.744

#### Maximum Capacitance Unbalance:

Capacitance (pF/m)
3.937

#### Nominal Velocity of Propagation:

VP (%)
66

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
19.2267

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
24.608

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
0.039	0.262

#### Max. Attenuation:

()	Freq. (MHz)	Attenuation (dB/100m)
0.298571	0.039	0.300

#### Max. Operating Voltage - UL:

Voltage
300 V RMS

#### Max. Recommended Current:

Description	Current
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## METRIC MEASUREMENT VERSION

### 3076F Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

Per Conductor	5.2 Amps
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**Other Electrical Characteristic 1:** Max Propagation Delay Change From 7.812 kHz to 39.06 kHz: 518 pS/ft

**Other Electrical Characteristic 2:** 31.25 KBits/sec

#### Notes (Overall)

**Notes:** Fieldbus: Orange jacket. Profibus PA: Intrinsically Safe Blue jacket. Jacket diameter tolerance: +/- .010

#### Related Documents:

[FieldbusCertificate-3076F.pdf](#) - This is a Foundation H1 Cable Registration Certification for 3076F.

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
3076F 0031000	1,000 FT	48.000 LB	ORANGE	C	TW PR #18 PP FS PVC
3076F 00310000	10,000 FT	510.000 LB	ORANGE	C N	TW PR #18 PP FS PVC
3076F 003250	250 FT	14.000 LB	ORANGE	C	TW PR #18 PP FS PVC
3076F 0032500	2,500 FT	120.000 LB	ORANGE	C	TW PR #18 PP FS PVC
3076F 003500	500 FT	25.500 LB	ORANGE	C	TW PR #18 PP FS PVC
3076F 0035000	5,000 FT	240.000 LB	ORANGE	C N	TW PR #18 PP FS PVC
3076F 0061000	1,000 FT	48.000 LB	BLUE, LIGHT	C	TW PR #18 PP FS PVC

**Notes:**

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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