Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

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. (in.)
1	18	7x26	TC - Tinned Copper	0.046

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. (in.)
0.280

Overall Cable

Overall Cabling Fillers:	Polypropylene

Overall Cabling Lay Length & Direction:

Length (in.)	Twists (twist/ft)
2.250	5.300

Mechanical Characteristics (Overall)

Operating Temperature Range:	-40°C To +105°C
UL Temperature Rating:	105°C
Bulk Cable Weight:	38 lbs/1000 ft.
Max. Recommended Pulling Tension:	60 lbs.
Min. Bend Radius/Minor Axis:	2.500 in.

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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR, PLTC-ER
NEC Articles:	725, 727, 800
CEC/C(UL) Specification:	CMG
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
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

Electrical Characteristics (Overall)

Unaveraged Impedance:

Freq. (MHz)	Impedance (Ohm)
0.031	100.000

Nom. Inductance:

Inductance (µH/ft)
.19

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
45.0

Nom. Mutual Capacitance:

Capacitance (pF/ft)
24.0

Maximum Capacitance Unbalance:

Capacitance (pF/ft)
1.200

Nominal Velocity of Propagation:

VP (%)
66

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Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
5.86

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
7.500

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
0.039	0.080

Max. Attenuation:

()	Freq. (MHz)	Attenuation (dB/100 ft.)
.091	0.039	0.091

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Recommended Current:

Description	Current
Per Conductor	5.2 Amps

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 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.

Test Reports

a) UL
i) UL Test Reports are available on-line through the UL Client Document Access web portal.
ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CSA
i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

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