# Detailed Specifications & Technical Data



# 3076F Paired - DataBus®/Profibus

For more information please call 1-800-Belden1 See Put-ups and Colors

#### **Description:**

Fieldbus/Profibus PA, 18 AWG stranded (7x26) tinned copper, polyolefin insulation, Beldfoil® (100% shield coverage), tinned copper drain wire, PVC jacket.

#### PHYSICAL CHARACTERISTICS:

#### **CONDUCTOR:**

Number of Pairs	1
Total Number of Conductors	2
AWG	18
Stranding	7x26
Conductor Diameter	.048 in.
Conductor Material	TC - Tinned Copper

#### INSULATION:

PO - Polyolefin Insulation Material

#### PAIR:

Pair Lay Length	2.25 in.	
Pair Shield Material Trade Name	Beldfoil®	
Pair Shield Type	Tape	
Pair Shield Material	Aluminum Foil-Polyester Tape	
Pair Shield % Coverage	100 %	
DAID CHIELD DDAIN MIDE		

#### PAIR SHIELD DRAIN WIRE:

TAIK SHIELD DRAIN WIKE.	
Pair Shield Drain Wire AWG	20
Pair Shield Drain Wire Stranding	7x28
Pair Shield Drain Wire Conductor Material	TC - Tinned Copper

#### Pair Color Code Chart:

Number	Color
1	Blue&Orange

#### **OUTER SHIELD:**

Outer Shield Material	Unshielded

#### **OUTER JACKET:**

Outer Jacket Material	PVC - Polyvinyl Chloride	

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#### **OVERALL NOMINAL DIAMETER:**

Overall Nominal Diameter .253 in.

#### **MECHANICAL CHARACTERISTICS:**

-40°C To +105°C Operating Temperature Range Non-UL Temperature Rating 75°C 35 lbs/1000 ft. Bulk Cable Weight 59 lbs. Max. Recommended Pulling Tension 2.6 in. Min. Bend Radius (Install)

#### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### **APPLICABLE STANDARDS:**

PLTC, CM, ITC NEC/(UL) Specification CEC/C(UL) Specification CM

#### FLAME TEST:

**UL Flame Test** UL1581 Vertical Tray

#### **ELECTRICAL CHARACTERISTICS:**

Unaveraged Impedance:

Description Frequency (MHz)		Start Frequency (MHz)	Stop Frequency (MHz)	Unaveraged Impedance (Ohms)
.0312	5			100
Nom. Inductance		.19 μH/ft		
Nom. Capacitance Conductor to Si	hield @ 1 KHz	45.0 pF/ft		
Nom. Mutual Capacitance @ 1 KHz		24.0 pF/ft		
Maximum Capacitance Unbalance @ 1 KHz		3.6 pF/ft		
Nominal Velocity of Propagation		66 %		
Nom. Conductor DC Resistance @ 20 Deg. C		7.3 Ohms/1000 ft		
Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C		7.5 Ohms/1000 ft		
Nom. Attenuation (dR/100 ft):				

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Nom. Attenuation (dB/100 ft.)
	.039			.08

#### Max. Attenuation (dB/100 ft.):

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Max. Attenuation (dB/100 ft.)
	.039			.091

Max. Operating Voltage - Other 300 V RMS

Max. Recommended Current:

Description	Max. Recommended Current
Per Conductor	5.2 Amps

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Other Electrical Characteristic 2	31.25 KBits/sec
NOTES:	
Notes	Profibus PA: Intrinsically Safe Blue jacket. Fieldbus: Orange jacket.
Notes (Cont'd.)	CPE Jacket is optional. Tape around pair has shorting fold.

#### **PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
3076F 0031000	TWPR #18 PP FS PVC	1000	34	ORANGE	C N
3076F 003250	TWPR #18 PP FS PVC	250	10.5	ORANGE	С
3076F 0032500	TWPR #18 PP FS PVC	2500	85	ORANGE	CN
3076F 003500	TWPR #18 PP FS PVC	500	18.5	ORANGE	С
3076F 0035000	TWPR #18 PP FS PVC	5000	170	ORANGE	C N
3076F 0061000	TW PR #18 PP FS PVC	1000	37	BLUE, LIGHT	C N

C = CRATE REEL PUT-UP.

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

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