## **Detailed Specifications & Technical Data**

#### **ENGLISH MEASUREMENT VERSION**



### 2121A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable





For more Information please call

1-800-Belden1



### **General Description:**

**Bulk Cable Weight:** 

Max. Recommended Pulling Tension:

8 pair, 18 AWG, Stranded (7x26) Tinned Copper, Individually Foil Shielded Pairs, Overall Beldfoil Shield, Tinned Copper Drain Wires, XLP Insulation, Sunlight- and oil-resistant TPE jacket

Physical Characteristics (Overall)						
Conductor						
AWG:						
# Pairs AWG Stranding Conductor Ma						
8   18   7x26   TC - Tinned Co	pper					
Total Number of Conductors:	16					
Insulation Insulation Material:						
Insulation Material						
XLP - Cross-linked Polyolefin						
ALI - 01033-IIIIRCU I OIYOICIIII						
Inner Shield						
Inner Shield Material:						
Inner Shield Trade Name Type Inner S						
Beldfoil® Tape Aluminu	um Foil-Polyester Tape   100					
Inner Shield Drain Wire AWG:						
<b>AWG Stranding Conductor Material</b>						
20 7x28 TC - Tinned Copper						
Outer Object						
Outer Shield Outer Shield Material:						
Outer Shield Trade Name Type Outer	Shield Material Coverage (%)					
	num Foil-Polyester Tape   100					
Outer Shield Drain Wire AWG:						
AWG Stranding Drain Wire Conductor Material  18   7x26   TC - Tinned Copper						
18 7x26 TC - Tinned Copper						
Outer Jacket						
Outer Jacket Material:						
Outer Jacket Material						
TPE - Thermoplastic Elastomer						
Outer Jacket Ripcord:	Yes					
Overall Cable						
Overall Nominal Diameter:	0.800 in.					
Pair						
Pair Color Code Chart:						
Number Color						
1 Blue & Orange Numbered 1						
2 Blue & Orange Numbered 2						
3 Blue & Orange Numbered 3						
4 Blue & Orange Numbered 4						
5 Blue & Orange Numbered 5						
6 Blue & Orange Numbered 6						
7 Blue & Orange Numbered 7						
8 Blue & Orange Numbered 8						
Machanical Characteristics (2						
Mechanical Characteristics (Overa	II)					
Operating Temperature Range:	-25°C Cold Impact, -40°C To +90°C, -55°C Cold Bend					

313 lbs/1000 ft.

481 lbs.

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Voltage Description



### 2121A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

Min. Bend Radius/Minor Axis:	8 in.
Applicable Specifications and Agency Compl	liance (Overall)
Applicable Standards & Environmental Programs	
NEC/(UL) Specification:	TC-ER
CSA Specification:	AWM I A/B II A/B, C22.2 #230 Type TC; C22.2#239 Type CIC
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 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:	IEC 61158-2 (ISA/SP-50) Type A
Flame Test	
UL Flame Test:	UL1581 Vertical Tray
CSA Flame Test:	FT4
IEC Flame Test:	60332-3-24 (Category C)
Suitability	
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Sunlight Resistance:	Yes
Oil Resistance:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	No
Electrical Characteristics (Overall)	
Unaveraged Impedance:	
Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (MHz)	
.03125	100
Nom. Inductance: Inductance (μH/ft)	
0.220	
Nom. Capacitance Conductor to Conductor:	
Capacitance (pF/ft) 22.000	
Maximum Capacitance Unbalance:	
Capacitance (pF/ft) 1.2	
Nominal Velocity of Propagation:	
<b>VP (%)</b> 64.000	
Nom. Conductor DC Resistance:	
DCR @ 20°C (Ohm/1000 ft)	
5.86	
Nom. Attenuation:  Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (M	MHz) Attenuation (dB/100 ft.)
.039	.08
Max. Attenuation:	
() Freq. (MHz) Attenuation (dB/100 ft.)   .091   0.039   0.091	
Max. Operating Voltage - UL:	
Voltage 600 V RMS	
Max. Operating Voltage - Other:	
Voltage Description	

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### **Detailed Specifications & Technical Data**





### 2121A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

600V RMS | CSA CIC type TC

Max. Recommended Current:

Description Current Per Conductor 7.6 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

#### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2121A 0031000	1,000 FT	407.000 LB	ORANGE		600V/PR/08/18AWG/7T/XLPE/ORGBL
2121A 0035000	5,000 FT	1,840.000 LB	ORANGE		600V/PR/08/18AWG/7T/XLPE/ORGBL
2121A 0061000	1,000 FT	407.000 LB	BLUE, LIGHT		600V/PR/08/18AWG/7T/XLPE/ORGBL
2121A 0065000	5,000 FT	1,840.000 LB	BLUE, LIGHT		600V/PR/08/18AWG/7T/XLPE/ORGBL

Revision Number: 1 Revision Date: 11-30-2015

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product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).

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