# **Detailed Specifications & Technical Data**

### **METRIC MEASUREMENT VERSION**



## 2101A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable





For more Information please call

1-800-Belden1



### **General Description:**

Min. Bend Radius/Minor Axis:

2 pair, 18 AWG stranded (7x26) tinned copper conductors, XLP insulation, individual and overall Beldfoil® shields (100% coverage), tinned copper drain wire, sunlight- and oil-resistant FR-PVC jacket.

Physical Characteristics (Overall)	
Conductor	
AWG: # Pairs AWG Stranding Conductor Material	
2 18 7x26 TC - Tinned Copper	
Total Number of Conductors:	4
	•
Insulation Insulation Material:	
Insulation Material	
XLP - Cross-linked Polyolefin	
Inner Shield	
Inner Shield Material: Inner Shield Trade Name Type Inner Shield Material Covo	erage (%)
Beldfoil® Tape   Aluminum Foil-Polyester Tape   100	61age (70)
Inner Shield Drain Wire AWG:	
AWG Stranding Conductor Material	
20 7x28 TC - Tinned Copper	
Outer Shield	
Outer Shield Material:	
Outer Shield Trade Name Type Outer Shield Material Cov Beldfoil®   Tape   Aluminum Foil-Polyester Tape   100	verage (%)
Outer Shield Drain Wire AWG:	
AWG Stranding Drain Wire Conductor Material	
18 7x26 TC - Tinned Copper	
Outer Jacket	
Outer Jacket Material:	
Outer Jacket Material	
FR PVC - Polyvinyl Chloride	
Outer Jacket Ripcord:	Yes
Overall Cable	
Overall Nominal Diameter:	13.005 mm
Pair Pair Color Code Chart:	
Number Color	
1 Blue & Orange Numbered 1	
2 Blue & Orange Numbered 2	
Mechanical Characteristics (Overall)	05°0 Odd brood 40°0 To 100°0 F5°0 Odd Dod
Operating Temperature Range:	-25°C Cold Impact, -40°C To +90°C, -55°C Cold Bend
UL Temperature Rating:	90°C Wet/Dry
Installation Temperature Rating:	-25°C
Bulk Cable Weight:	162.214 Kg/Km
Max. Recommended Pulling Tension:	609.403 N

133.350 mm

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Max. Operating Voltage - Other:

Voltage Description

300V RMS | CSA CIC type TC |



### 2101A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

pplicable Specifications and Agency Compl	liance (Overall)
applicable Standards & Environmental Programs	
NEC/(UL) Specification:	CMG, ITC, PLTC-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
lame Test	
UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4
IEC Flame Test:	60332-3-24 (Category C)
uitability	
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Sunlight Resistance:	Yes
Oil Resistance:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	No
ectrical Characteristics (Overall)	
Inaveraged Impedance:	
Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (M	
.03125	100
om. Inductance: Inductance (µH/m)	
0.722	
om. Capacitance Conductor to Conductor:	
Capacitance (pF/m)	
72.182	
laximum Capacitance Unbalance:  Capacitance (pF/m)	
3.9372	
ominal Velocity of Propagation:	
VP (%)	
64.000	
lom. Conductor DC Resistance:	
DCR @ 20°C (Ohm/km) 19.2267	
om. Attenuation:	
Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (M	
.039	0.26248
lax. Attenuation:	
() Freq. (MHz) Attenuation (dB/100m) 0.298571 0.039 0.299	
lax. Operating Voltage - UL:	
Voltage 300 V RMS	

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### METRIC MEASUREMENT VERSION



### 2101A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable

#### Max. Recommended Current:

Description Current Per Conductor 8.7 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
2101A 0031000	1,000 FT	173.000 LB	ORANGE		300V/PR/02/18AWG/7T/XLPE/ORGBL
2101A 0035000	5,000 FT	680.000 LB	ORANGE		300V/PR/02/18AWG/7T/XLPE/ORGBL
2101A 0061000	1,000 FT	173.000 LB	BLUE, LIGHT		300V/PR/02/18AWG/7T/XLPE/ORGBL
2101A 0065000	5,000 FT	680.000 LB	BLUE, LIGHT		300V/PR/02/18AWG/7T/XLPE/ORGBL

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