# **Detailed Specifications & Technical Data**

### METRIC MEASUREMENT VERSION



## 2130A Multi-Conductor - DataBus® ISA/SP-50 FOUNDATION Fieldbus or PROFIBUS Cable





For more Information please call

1-800-Belden1



## **General Description:**

8 pair, 16 AWG, Stranded (7x24) Tinned Copper, Individually Foil Shielded Pairs, Overall Beldfoil Sheild, Tinned Copper Drain Wires, XLP Insulation, Sunlight- and oil-resistant TPE jacket

# **Physical Characteristics (Overall)**

### Conductor

AWG:

	AWG	Stranding	<b>Conductor Material</b>
8	16	7x24	TC - Tinned Copper

Total Number of Conductors:

16

#### Insulation

Insulation Material:



#### **Inner Shield**

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

### Inner Shield Drain Wire AWG:

AWG	Stranding	<b>Conductor Material</b>
18	7x26	TC - Tinned Copper

#### **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:**

	Stranding	<b>Drain Wire Conductor Material</b>
16	7x24	TC - Tinned Copper

### **Outer Jacket**

**Outer Jacket Material:** 

Outer Jacket Material
TPE - Thermoplastic Elastomer

Outer Jacket Ripcord:

Yes

#### **Overall Cable**

Overall Nominal Diameter: 24.943 mm

#### 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

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5	Blue & Orange Numbered 5
6	Blue & Orange Numbered 6
7	Blue & Orange Numbered 7
8	Blue & Orange Numbered 8

**Mechanical Characteristics (Overall)** 

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:	711.360 Kg/Km		
Max. Recommended Pulling Tension:	3496.285 N		
Min. Bend Radius/Minor Axis:	254 mm		
Applicable Specifications and Agency C	Compliance (Overall)		
Applicable Standards & Environmental Pro	grams		
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:

Suitability - Outdoor:

Yes

Sunlight Resistance:

Yes

Oil Resistance:

Yes

## Plenum/Non-Plenum

Plenum (Y/N): No

# **Electrical Characteristics (Overall)**

# Unaveraged Impedance:

Description Freq. (N	IHz) Start Freq. (MHz)	Stop Freq. (MHz)	Impedance (Ohm)
.03125			100

### Nom. Inductance:

Inductance (µH/m) 0.722

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)

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72.182

**Maximum Capacitance Unbalance:** 

Capacitance (pF/m) 3.9372

**Nominal Velocity of Propagation:** 

**VP (%)** 64.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 13.780

Nom. Attenuation:

**Freq. (MHz) Attenuation (dB/100m)** 0.039 0.213

Max. Attenuation:

() Freq. (MHz) Attenuation (dB/100m) 0.298571 | 0.039 | 0.299

Max. Operating Voltage - UL:

Voltage 600 V RMS

Max. Operating Voltage - Other:

Voltage Description
600V RMS | CSA CIC type TC |

Max. Recommended Current:

DescriptionCurrentPer Conductor10.1 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
2130A 0031000	1,000 FT	612.000 LB	ORANGE		600V/PR/08/16AWG/7T/XLPE/ORGBL
2130A 0035000	5,000 FT	2,915.000 LB	ORANGE		600V/PR/08/16AWG/7T/XLPE/ORGBL
2130A 0061000	1,000 FT	612.000 LB	BLUE, LIGHT		600V/PR/08/16AWG/7T/XLPE/ORGBL
2130A 0065000	5,000 FT	2,915.000 LB	BLUE, LIGHT		600V/PR/08/16AWG/7T/XLPE/ORGBL

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