



Product: [1331A](#)

Fieldbus, 16 Pr #18 Str TC, PO Ins, IS/OS, PVC Jkt, CMG

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Product Description

Fieldbus, 16 Pair 18AWG (7x26) Tinned Copper, PO Insulation, Individual & Overall Beldfoil® Shield, Orange PVC Outer Jacket, CMG

Technical Specifications

Product Overview

Suitable Applications:	harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc.
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Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	Nominal Diameter	No. of Pairs
Pair(s)	18	7x26	TC - Tinned Copper	0.048 in	16

Conductor Count:	32
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Insulation

Material
PP - Polypropylene

Color Chart

Number	Color
1	Blue, Orange and Numbered
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Inner Shield

Type	Material	Material Trade Name	Coverage [%]	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	20	7x28
	Tinned Copper (TC)				

Outer Shield

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	TC - Tinned Copper	18	7x26

Outer Jacket

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.92 in	Yes

Construction and Dimensions

Stranding

Twists
6 twist/ft

Electrical Characteristics

Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR	Nominal Outer Shield DCR
7.5 Ohm/1000ft	5.86 Ohm/1000ft	4.9 Ohm/1000ft

Capacitance

Max. Capacitance Unbalance	Nom. Capacitance Conductor to Shield	Nom. Mutual Capacitance
1.2 pF/ft	45 pF/ft	24 pF/ft

Inductance

Nominal Inductance
0.19 μ H/ft

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

Nom. Insertion Loss
0.08 dB/100ft

Delay

Nominal Velocity of Propagation (VP) [%]
66%

High Frequency

Max. Insertion Loss (Attenuation)	Max./Min. Input Impedance (unFitted)
0.091 dB/100ft	100 Ohm

Current

Element	Max. Recommended Current [A]
Per Conductor	5.2 Amps per Conductor

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes: Max Propagation Delay Change From 7.812 kHz to 39.06 kHz: 518 pS/ft

Other Electrical Characteristic 2: 31.25 KBits/sec

Temperature Range

UL Temp Rating:	105°C
Operating Temperature Range:	-40°C to +105°C

Mechanical Characteristics

Oil Resistance:	Yes
UV Resistance:	Yes
Max. Pull Tension:	940 lbs
Min. Bend Radius/Minor Axis:	9.2 in

Standards

NEC Articles: Article 725, Article 727, Article 800

NEC/(UL) Compliance:	CMG, CMX-Outdoor, ITC, PLTC-ER
CEC/C(UL) Compliance:	CMG

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Burial:	Yes - UL
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 FT4 Loading
IEC Flammability:	60332-3-24 (Category C)
IEEE Flammability:	1202
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
1331A 0031000	Orange	Reel	1,000 ft	612825112082

Footnote:	C - CRATE REEL PUT-UP.
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History

Update and Revision:	Revision Number: 0.435 Revision Date: 04-08-2022
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