



**Product:** [2101A](#)

Fieldbus, 2 Pr #18 Str TC, XLPO Ins, IS/OS, TPE Jkt, CMG

[Request Sample](#)

### Product Description

Fieldbus, 2 Pair 18AWG (7x26) Tinned Copper, XLPO Insulation, Individual & Overall Beldfoil® Shield, Orange TPE 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	No. of Pairs
Pair(s)	18	7x26	TC - Tinned Copper	2

Conductor Count:	4
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##### Insulation

Material	Nominal Wall Thickness
XLPE - Cross-Linked Polyethylene (Thermoset)	0.032 in

##### Color Chart

Number	Color
1	Blue, Orange and Numbered
2	

##### Inner 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	20	7x28

##### 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	Nominal Wall Thickness	Ripcord
TPE - Thermoplastic Elastomer	0.512 in	0.047 in	Yes

#### Electrical Characteristics

##### Conductor DCR

Nominal Conductor DCR
5.86 Ohm/1000ft

##### Capacitance

Max. Capacitance Unbalance	Nom. Capacitance Conductor to Conductor
1.2 pF/ft	22 pF/ft

##### Inductance

**Nominal Inductance**

0.22 µH/ft

**Impedance****Nominal Characteristic Impedance**

100 Ohm

**High Frequency (Nominal/Typical)**

Frequency [MHz]	Nom. Insertion Loss
0.039 MHz	0.08 dB/100ft

**Delay****Nominal Velocity of Propagation (VP) [%]**

64%

**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	8.7 Amps per Conductor

**Voltage**

Description	UL Voltage Rating
CSA CIC type TC	300 V

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**

Installation Temp Rating:	-25°C
UL Temp Rating:	90°C
Operating Temperature Range:	-40°C to 90°C

**Mechanical Characteristics**

Oil Resistance:	Yes
Bulk Cable Weight:	109 lbs/1000ft
Max. Pull Tension:	137 lbs
Min. Bend Radius/Minor Axis:	5.25 in

**Standards**

NEC Articles:	Article 725, Article 727, Article 800
NEC/(UL) Compliance:	CMG, ITC, PLTC-ER
CEC/C(UL) Compliance:	CIC, TC
CSA AWM Compliance:	AWM I A/B II A/B
ISO/IEC Compliance:	IEC 61158-2
Other Standards:	ISA/SP-50 Type A

**Applicable Environmental and Other Programs**

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	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
Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

## Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
IEC Flammability:	IEC 60332-3-24
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
2101A 0061000	Blue, Light	Reel	1,000 ft	612825128816
2101A 0065000	Blue, Light	Reel	5,000 ft	612825128823
2101A 0031000	Orange	Reel	1,000 ft	612825128793
2101A 0035000	Orange	Reel	5,000 ft	612825128809

## History

Update and Revision:	Revision Number: 0.526 Revision Date: 05-05-2023
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