



**Product:** [2131A](#)

Fieldbus, 12 Pr #16 Str TC, XLPE Ins, IS/OS, TPE Jkt, 600V TC-ER

[Request Sample](#)

## Product Description

Fieldbus, 12 Pair 16AWG (7x24) Tinned Copper, XLPE Insulation, Individual & Overall Beldfoil® Shield, TPE Outer Jacket, 600V TC-ER

## 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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### Construction Details

#### Conductor

Element	Number of Element	AWG	Stranding	Material
Pair(s)	12	16	7x24	TC - Tinned Copper

#### Insulation

Element	Material	Thickness	Color Code
Pair(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.038 in	Blue, Orange and Numbered

#### Inner Shield Material

Element	Shield Type	Material	Coverage	Drainwire Type	Notes
Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	18 AWG (7x26) TC	Individually Shielded

#### Outer Shield Material

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	16 AWG (7x24) TC

#### Outer Jacket Material

Material	Thickness	Nom. Diameter	Ripcord
TPE - Thermoplastic Elastomer	0.085 in	1.186 in	Yes

Cable Diameter (Nominal):	1.186 in
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### Electrical Characteristics

#### Electricals

Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Max. Capacitance Unbalance	Characteristic Impedance	Nom. Velocity of Prop.	Max. Current
4.2 Ohm/1000ft	22 pF/ft	1.2 pF/ft	100 Ohm	64%	7.2 Amps per Conductor

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.039 MHz	0.065 dB/100ft

#### High Freq

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

#### Voltage

**UL Voltage Rating**

600 V (TC-ER), 600 V (CSA CIC Type TC)

**Mechanical Characteristics****Temperature**

UL Rating	Operating
90°C Wet/Dry	-40°C to 90°C

Table Notes: -40C

**Bend Radius**

Stationary Min.
12 in

Max. Pull Tension: 1161 lbs

Bulk Cable Weight: 666 lbs/1000ft

**Standards and Compliance**

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial
Flammability / Fire Resistance:	UL1581 Vertical Tray, FT4, 60332-3-24 (Category C)
NEC / UL Compliance:	Article 336, TC-ER
AWM Compliance:	AWM I A/B II A/B
CEC / C(UL) Compliance:	CIC, TC
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	ISA/SP-50 Type A

**History**

Update and Revision: Revision Number: 0.265 Revision Date: 05-26-2021

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