



Product: [2129A](#)

Fieldbus, 5 Pr #16 Str TC, XLPE Ins, IS/OS, TPE Jkt, 600V TC-ER

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Product Description

Fieldbus, 5 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	Size	Stranding	Material
Pair(s)	5	16 AWG	7x24	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code
Pair(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.038 in (0.97 mm)	Blue, Orange and Numbered

Inner Shield

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

Outer Shield

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

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
TPE - Thermoplastic Elastomer	0.063 in (1.6 mm)	0.789 in (20.0 mm)	Yes

Overall Cable Diameter (Nominal):	0.789 in (20.0 mm)
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Electrical Characteristics

Electricals

Nom. Conductor DCR	Max. Capacitance Unbalance	Nom. Capacitance Cond-to-Cond	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
4.2 Ohm/1000ft (14 Ohm/km)	1.2 pF/ft (3.9 pF/m)	22 pF/ft (72 pF/m)	100 Ohm	64%	10.1 Amps per Conductor

High Frequency (Nominal/Typical)

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

High Frequency

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 Temperature	Operating
90°C Wet/Dry	-40°C to 90°C

Table Notes:	-40C
Max. Pull Tension:	504 lbs (229 kg)
Bulk Cable Weight:	294 lbs/1000ft (438 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Burial
Flammability / Reaction to Fire:	UL1581 Vertical Tray, IEC 60332-3-24
NEC / UL Compliance:	Article 336, TC-ER
AWM Compliance:	AWM I A/B II A/B
CEC / C(UL) Compliance:	CIC, TC
ISO/IEC Compliance:	IEC 61158-2
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: 0.442 Revision Date: 05-05-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
2129A 0061000	Blue, Light	Reel	1,000 ft	612825130109
2129A 0065000	Blue, Light	Reel	5,000 ft	612825130116
2129A 0031000	Orange	Reel	1,000 ft	612825130086
2129A 0035000	Orange	Reel	5,000 ft	612825130093

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