

Product: 127925R

DataTuff® Cat 6, 4 Bonded-Pr #23 Sol BC, PO Ins, PVC Jkt, AIA Armor, PVC Jkt, CMR CMG

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 23AWG (Solid) Bare Copper, PO Insulation, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, CMR CMG

Technical Specifications

Product Overview

Suitable Applications:	Harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/patents.

Construction Details

Conductor

Size	Stranding	Material	No. of Pairs
23 AWG	Solid	BC - Bare Copper	4

Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes

Inner Jacket

Separator	Material	Nom. Diameter	Ripcord
	PVC - Polyvinyl Chloride	0.235 in (5.97 mm)	Yes
Center Member (Patented X-Spline®)			

Armor

Armor Type & Material	Diameter Over Armor
AIA - Aluminum Interlock Armor	0.510 in (13.0 mm)

Outer Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.600 in (15.2 mm)	No

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537.6 ns/100	45 ns/100m	68%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Min. TCL [dB]

1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	20	100 ± 15 Ohm	40
4	3.78 dB/100m	65.28	63.28	61.5	59.5	55.71	52.71	23.01	100 ± 15 Ohm	40
8	5.32 dB/100m	60.77	58.77	55.45	53.45	49.69	46.69	24.52	100 ± 15 Ohm	40
10	5.95 dB/100m	59.31	57.31	53.36	51.36	47.75	44.75	25	100 ± 15 Ohm	40
16	7.55 dB/100m	56.25	54.25	48.7	46.7	43.67	40.67	25	100 ± 15 Ohm	37.96
20	8.47 dB/100m	54.8	52.8	46.33	44.33	41.73	38.73	25	100 ± 15 Ohm	36.99
25	9.51 dB/100m	53.35	51.35	43.84	41.84	39.79	36.79	24.32	100 ± 15 Ohm	36.02
31.25	10.67 dB/100m	51.89	49.89	41.22	39.22	37.86	34.86	23.64	100 ± 15 Ohm	35.05
62.5	15.38 dB/100m	47.38	45.38	31.99	29.99	31.83	28.83	21.54	100 ± 15 Ohm	32.04
100	19.8 dB/100m	44.31	42.31	24.51	22.51	27.75	24.75	20.11	100 ± 15 Ohm	30
155	25.16 dB/100m	41.46	39.46	16.3	14.3	23.95	20.95	18.77	100 ± 15 Ohm	28.1
200	28.98 dB/100m	39.8	37.8	10.82	8.82	21.73	18.73	18	100 ± 15 Ohm	26.99
250	32.85 dB/100m	38.35	36.35	5.5	3.5	19.79	16.79	17.32	100 ± 15 Ohm	26.02

Voltage

UL Voltage Rating
300 V (CM)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation	Storage
75°C	-25°C To +75°C	-40°C To +75°C	-25°C To +75°C

Bend Radius

Installation Min.
7.2 in (180 mm)

Max. Pull Tension:	200 lbs (91 kg)
Bulk Cable Weight:	120 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL 1666 Riser
CPR Compliance:	CPR Euroclass: Fca
NEC / UL Compliance:	Article 800, CMR
CEC / C(UL) Compliance:	CMG, HL, CSA CMG
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
Third Party Performance Verification:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical system.

History

Update and Revision:	Revision Number: 0.128 Revision Date: 12-12-2023

Part Numbers

Variants

Item #
127925R 0101000
127925R 0105000
127925R J221000
127925R J225000

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