



Product: <u>127925R</u> ☑

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			
ĺ	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	Max. Insertion Loss	Min.	Min.	Min.	Min.	Min. ACRF	Min. PSACRF	Min. RL (Return	Max./Min. Input	Min. TCL
[MHz]	(Attenuation)	NEXT [dB]	PSNEXT [dB]	ACR [dB]	PSACR [dB]	(ELFEXT) [dB]	(PSELFEXT) [dB]	Loss) [dB]	Impedance (unFitted)	[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: 0.129 Revision Date: 04-29-2024

Part Numbers

Variants

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

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.