BELDEN

Product: 7919A

DataTuff® Cat 5e, 4 Pr #24 Sol BC, PO Ins, OS, PVC Jkt, MSHA CMR

⚏ Request Sample

Product Description

Industrial Ethernet Cat 5e, 4 Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Outer Jacket, MSHA CMR

Technical Specifications

Product Overview

Suitable Applications:	mining, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.

Construction Details

Conductor

Size	Stranding	Material	Number of Pairs
24 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

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Polyester + Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.265 in (6.73 mm)

Overall Cable Diameter (Nominal):	0.265 in (6.73 mm)

Electrical Characteristics

Electricals

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

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
538 ns/100m	45 ns/100m	70%

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]	Min. SRL (Structural Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1	2.0 dB/100m	65.3	62.3	63	60	63.8	60.8	20	23	100 ± 15 Ohm	100 ± 15 Ohm
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23	23	100 ± 15 Ohm	100 ± 15 Ohm
8	5.8 dB/100m	51.8	48.8	46	43	45.7	42.7	24.5	24.5	100 ± 15 Ohm	100 ± 15 Ohm
10	6.5 dB/100m	50.3	47.3	43	41	43.8	40.8	25	25	100 ± 15 Ohm	100 ± 15 Ohm
16	8.2 dB/100m	47.3	44.3	39	36	39.7	36.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm
20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm

25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	24.3	24.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25	11.7 dB/100m	42.9	39.9	31	28	33.9	30.9	23.6	23.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5	17.0 dB/100m	38.4	35.4	22	19	27.8	24.8	21.5	21.5	100 ± 15 Ohm	100 ± 15 Ohm
100	22.0 dB/100m	35.3	32.3	14	11	23.8	20.8	20.1	20.1	100 ± 15 Ohm	100 ± 15 Ohm

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Installation
60°C	-40°C To +75°C	-25°C To +75°C

Bend Radius

Stationary Min.
1 in (25 mm)

Max. Pull Tension:	25 lbs (11 kg)
Bulk Cable Weight:	30 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance, Aerial
Flammability / Reaction to Fire:	UL1666 Riser, FT4, FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CMR;CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor
NEMA Compliance:	NEMA WC-63.1
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
European Directive Compliance:	EU CE Mark, 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
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	P-07-KA060004-MSHA

Product Notes

Notes:	Operating temperatures are subject to length de-rating. Cable passes -40°C Cold Bend per UL 1581. T568A Plug Compatible Part Number: R301603 T568B Plug Compatible Part Number: R301604

History

Update and Revision:	Revision Number: 0.532 Revision Date: 01-24-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
7919A 01010000	Black			612825191216
7919A 0101000	Black	Reel	1,000 ft	612825191209
7919A 0102000	Black	Reel	2,000 ft	612825191223
7919A 0105000	Black	Reel	5,000 ft	612825191230
7919A 0061000	Blue	Reel	1,000 ft	612825191193