



Product: [7929A](#)

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

[Request Sample](#)

Product Description

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

Technical Specifications

Product Overview

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

| Element | Size | Stranding | Material | No. of Pairs | No. of Elements |
|---------|--------|-----------|------------------|--------------|-----------------|
| Pair(s) | 24 AWG | Solid | BC - Bare Copper | 4 | 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 |
|--------------|-----|

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 | 0.275 in (6.99 mm) |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.275 in (6.99 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 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) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--|--|----------------------------------|
| 1 | 2.0 dB/100m | 65.3 | 62.3 | 63 | 60 | 63.8 | 60.8 | 20 | 23 | 100 ± 15 | 100 ± 15 |
| 4 | 4.1 dB/100m | 56.3 | 53.3 | 51 | 49 | 51.7 | 48.7 | 23 | 23 | 100 ± 15 | 100 ± 15 |
| 8 | 5.8 dB/100m | 51.8 | 48.8 | 46 | 43 | 45.7 | 42.7 | 24.5 | 24.5 | 100 ± 15 | 100 ± 15 |
| 10 | 6.5 dB/100m | 50.3 | 47.3 | 43 | 41 | 43.8 | 40.8 | 25 | 25 | 100 ± 15 | 100 ± 15 |

| | | | | | | | | | | | |
|-------|--------------|------|------|------|------|------|------|------|------|----------|----------|
| 16 | 8.2 dB/100m | 47.3 | 44.3 | 39 | 36 | 39.7 | 36.7 | 25 | 25 | 100 ± 15 | 100 ± 15 |
| 20 | 9.3 dB/100m | 45.8 | 42.8 | 36.5 | 33.5 | 37.7 | 34.7 | 25 | 25 | 100 ± 15 | 100 ± 15 |
| 25 | 10.4 dB/100m | 44.3 | 41.3 | 33.9 | 30.9 | 35.8 | 32.8 | 24.3 | 24.3 | 100 ± 15 | 100 ± 15 |
| 31.25 | 11.7 dB/100m | 42.9 | 39.9 | 31 | 28 | 33.9 | 30.9 | 23.6 | 23.6 | 100 ± 15 | 100 ± 15 |
| 62.5 | 17.0 dB/100m | 38.4 | 35.4 | 22 | 19 | 27.8 | 24.8 | 21.5 | 21.5 | 100 ± 15 | 100 ± 15 |
| 100 | 22.0 dB/100m | 35.3 | 32.3 | 14 | 11 | 23.8 | 20.8 | 20.1 | 20.1 | 100 ± 15 | |
| 200 | 32.4 dB/100m | | 27.8 | | 1 | | 14.7 | | 15 | 100 ± 25 | |

Voltage

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

Mechanical Characteristics

Temperature

| UL Temperature | Operating | Installation | Storage |
|----------------|----------------|----------------|----------------|
| 60°C | -40°C To +75°C | -25°C To +75°C | -40°C To +80°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 0.5 in (13 mm) |

| | |
|--------------------|-----------------|
| Max. Pull Tension: | 20 lbs (9.1 kg) |
| Bulk Cable Weight: | 32 lbs/1000ft |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | UL1666 Riser, FT4, IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca; CPR UKCA Class: Eca |
| NEC / UL Compliance: | Article 800 |
| CEC / C(UL) Compliance: | CMG |
| Data Category: | Category 5e |
| 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 |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Product Notes

| | |
|--------|--|
| Notes: | Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. *Special RJ45 plug required. See WWW. BELDEN.COM - Tools - Connector Cross Reference. |
|--------|--|

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.543 Revision Date: 03-04-2023 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 7929A 0101000 | Black | Reel | 1,000 ft | 612825191520 | C |
| 7929A 0102000 | Black | Reel | 2,000 ft | 612825191537 | C |
| 7929A 0105000 | Black | Reel | 5,000 ft | 612825191544 | C |
| 7929A 0061000 | Blue | Reel | 1,000 ft | 612825191506 | C |
| 7929A 0081000 | Gray | Reel | 1,000 ft | 612825191513 | C |
| 7929A 0021000 | Red | Reel | 1,000 ft | 612825191490 | C |
| 7929A 1NH1000 | Teal | Reel | 1,000 ft | 612825191551 | C |

© 2023 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.

