Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7960A Multi-Conductor - Category 5e DataTuff® Quad Cables



For more Information please call

1-800-Belden1



General Description:

22 AWG Symmetric quad solid bare copper conductors, polyolefin insulation, FRPE bedding, industrial grade sunlight- and oil-resistant PVC jacket, rip cord. Sequential marking at two foot intervals. PROFINET Type A cable

4

Usage (Overall)

Suitable Applications:

Industrial Ethernet Cable, Harsh Environments, Category 5e, ProfiNet, 100BaseTX, CMX - Outdoor, PLTC Listed, Approved for Cable Tray Use in Class 1, Division 2, Hazardous Areas and Non-hazardous Areas, Cable Trays, Raceways, Conduit and Supported by Messenger Wires, Approved for Outdoor Usage

Physical Characteristics (Overall)

Conductor

AWG:

| # Conductors | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------------|-----|-----------|--------------------|------------|
| 4 | 22 | Solid | BC - Bare Copper | 0.026 |

Total Number of Conductors:

Insulation

Insulation Material:



Inner Jacket

Inner Jacket Material:

| Inner Jacket Material | Nom. Dia. (in.) |
|-----------------------|-----------------|
| FRPE | 0.164 |

Outer Shield

Outer Shield Material:

| Layer # Outer Shield Trade Name | | Type | Outer Shield Material | Coverage (%) |
|---------------------------------|-----------|-------|--------------------------------|--------------|
| 1 | Beldfoil® | Tape | Aluminum Foil - Polyester Tape | 100.000 |
| 2 | | Braid | | 85.000 |

Outer Jacket

Outer Jacket Material:

Outer Jacket Material Industrial Grade PVC

Overall Cable

Overall Nominal Diameter: 0.268 in.

Pair

Pair Color Code Chart:

| Number | Color |
|--------|--------|
| 1 | White |
| 2 | Blue |
| 3 | Yellow |
| 4 | Orange |

Mechanical Characteristics (Overall)

| Storage Temperature Range: | -40°C To +80°C |
|-----------------------------------|---------------------|
| Installation Temperature Range: | -20°C To +60°C |
| Operating Temperature Range: | -40°C To +80°C |
| Bulk Cable Weight: | 40.700 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 55 lbs. |
| Min. Bend Radius/Minor Axis: | 2.560 in. |

Page 1 of 3 05-10-2016

Detailed Specifications & Technical Data





7960A Multi-Conductor - Category 5e DataTuff® Quad Cables

| Applicable Standards & Environmental Programs | | | | | |
|---|---|--|--|--|--|
| NEC/(UL) Specification: | CMG, CMX-Outdoor, ITC, PLTC | | | | |
| CEC/C(UL) Specification: | CMG | | | | |
| AWM Specification: | UL Style 21047 | | | | |
| EU Directive 2011/65/EU (ROHS II): | Yes | | | | |
| EU Directive 2000/53/EC (ELV): | Yes | | | | |
| EU Directive 2002/95/EC (RoHS): | Yes | | | | |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004 | | | | |
| EU Directive 2002/96/EC (WEEE): | Yes | | | | |
| EU Directive 2003/11/EC (BFR): | Yes | | | | |
| CA Prop 65 (CJ for Wire & Cable): | Yes | | | | |
| MII Order #39 (China RoHS): | Yes | | | | |
| Telecommunications Standards: | Category 5e - TIA 568.C.2 | | | | |
| lame Test | | | | | |
| UL Flame Test: | UL1685 FT4/IEEE 1202 Vertical Tray Flame Test | | | | |
| C(UL) Flame Test: | FT4 | | | | |
| IEEE Flame Test: | 1202 | | | | |
| uitability | | | | | |
| Suitability - Indoor: | Yes | | | | |
| Suitability - Outdoor: | Yes | | | | |
| Sunlight Resistance: | Yes | | | | |
| Oil Resistance: | Yes | | | | |
| lenum/Non-Plenum | | | | | |
| Plenum (Y/N): | No | | | | |

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

Maximum Capacitance Unbalance (pF/100 m):

66

Nominal Velocity of Propagation:

70

Maximum Delay:

Delay (ns/100 m)

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m) 5.700

Max. Operating Voltage - UL:

Voltage 300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

| • | | | | | | | | |
|---|-------------|-----------------------------|----------------|---------------|-------------|--|--|--|
| | Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. ACR (dB) | Min RL (dB) | | | |
| | 1 | 2.100 | 65.3 | 63.2 | 23.000 | | | |
| | 4 | 4.000 | 56.3 | 52.3 | 23.000 | | | |
| | 10 | 6.300 | 50.3 | 43.9 | 25.000 | | | |
| | 16 | 8.000 | 47.2 | 39.1 | 25.000 | | | |
| | 20 | 9.000 | 45.8 | 35.2 | 25.000 | | | |
| | 31.25 | 11.400 | 42.9 | 31.3 | 23.600 | | | |

Page 2 of 3

Detailed Specifications & Technical Data





7960A Multi-Conductor - Category 5e DataTuff® Quad Cables

| 62.5 | 16.500 | 38.4 | 21.6 | 21.500 |
|------|--------|------|------|--------|
| 100 | 21.300 | 35.3 | 17.1 | 20.100 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ACRF (dB) |
|-------------|------------------------------|------------------|----------------|
| 1 | 100 ± 20.2 | 105 ± 10 | 64.0 |
| 4 | 100 ± 14.2 | 100 ± 10 | 52.0 |
| 10 | 100 ± 11.3 | 100 ± 10 | 44.0 |
| 16 | 100 ± 11.3 | 100 ± 10 | 39.9 |
| 20 | 100 ± 11.3 | 100 ± 10 | 38.0 |
| 31.25 | 100 ± 13.2 | 100 ± 10 | 34.1 |
| 62.5 | 100 ± 16.9 | 100 ± 10 | 28.1 |
| 100 | 100 ± 20.0 | 100 ± 10 | 24.0 |

Notes (Overall)

Notes: Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Limits below 4 MHz are for information only.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-----------------|-------|--------------------------|
| 7960A 1SW1000 | 1,000 FT | 44.000 LB | GREEN, RAL 6018 | | PROFINET TYPE A CAT 5/5E |
| 7960A 1SW2000 | 2,000 FT | 88.000 LB | GREEN, RAL 6018 | | PROFINET TYPE A CAT 5/5E |

Revision Number: 0 Revision Date: 05-10-2016

© 2016 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 herein 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 "AS IS" 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This 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.

Page 3 of 3