



Product: [74010NH](#)

DataTuff® 6A, 4PR #22 Sol BC, PO ins, S/FTP, LSNH Jkt, PROFINET Type A, AWM 20851

Product Description

DataTuff® 6A, 4 Pair AWG 22 Bare Copper - Solid, Polyethylene insulation, S/FTP - Overall Braid / Individual Foil shielding, LSZH / FRNC jacket , PROFINET Type A, AWM 20851

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | PROFINET Cat6A, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|--|

Construction Details

Conductor

| Element | Size | Stranding | Material | No. of Pairs | No. of Elements |
|--------------------------|--------|-----------|------------------|--------------|-----------------|
| Individual Shielded Pair | 22 AWG | Solid | BC - Bare Copper | 4 | 8 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|--------------------------|--------------------------|--------------------------|--|
| Individual Shielded Pair | PE - Polyethylene (Foam) | 1.60 mm (0.0630 in) | White & Blue, White & Orange, White & Green, White & Brown |

Cable Core

| Description |
|-------------------------------|
| 4 pairs twisted to cable core |

Inner Shield

| Element | Shield Type | Material | Coverage |
|--------------------------|-------------|-------------------------|----------|
| Individual Shielded Pair | Tape | Bi-Laminate (Alum+Poly) | 100% |

| | |
|--------------|------------------|
| Table Notes: | Aluminum outside |
|--------------|------------------|

Outer Shield

| Shield Type | Material | Coverage |
|-------------|--------------------|----------|
| Braid | Tinned Copper (TC) | 80% |

Outer Jacket

| Material | Nom. Diameter |
|---|------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 8.7 mm (0.34 in) |

| | |
|-----------------------------------|------------------|
| Overall Cable Diameter (Nominal): | 8.7 mm (0.34 in) |
|-----------------------------------|------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|-------------------------|----------------------------|-------------------------------|
| 59.1 Ohm/km | 56 pF/m (17 pF/ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay Skew | Nom. Velocity of Prop. |
|-----------------|------------------------|
| 25 ns/100m | 78% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|---------------|-----------------|-------------------------|----------------------------|------------------|
| 1 | 2 dB/100m | 78 | 76 | 73 | 78 | 20 | 35 |
| 4 | 3.7 dB/100m | 78 | 74.3 | 71.3 | 78 | 23 | 23 |
| 10 | 5.9 dB/100m | 78 | 72.1 | 69.1 | 75.3 | 25 | 15 |
| 16 | 7.4 dB/100m | 78 | 70.6 | 67.6 | 71.2 | 25 | 10.9 |
| 31.2 | 10.4 dB/100m | 78 | 67.6 | 64.6 | 65.4 | 23.6 | 5.1 |
| 62.5 | 14.9 dB/100m | 75.5 | 60.6 | 57.6 | 59.4 | 21.5 | |
| 100 | 19 dB/100m | 72.4 | 53.4 | 50.4 | 55.3 | 20.1 | |
| 125 | 21.4 dB/100m | 70.9 | 49.6 | 46.6 | 53.4 | 19.4 | |
| 200 | 27.5 dB/100m | 67.9 | 40.4 | 37.4 | 49.3 | 18 | |
| 250 | 31 dB/100m | 66.4 | 35.5 | 32.5 | 47.3 | 17.3 | |
| 300 | 34.2 dB/100m | 65.2 | 31.1 | 28.1 | 45.8 | 17.3 | |
| 500 | 50.1 dB/100m | 60.7 | 10.6 | 7.6 | 39.7 | 17.3 | |

| | |
|---------------------------|--|
| Table Notes: | Limits below 4MHz are for information only |
| Transfer Impedance Class: | Grade 1 |
| Screening Class: | Type I |
| Table Notes: | Coupling Attenuation |

Voltage

| Voltage Rating |
|----------------|
| 30 V AC |

Mechanical Characteristics

Temperature

| Operating | Storage |
|----------------|----------------|
| -40°C to +80°C | -40°C to +80°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 45 mm (1.8 in) | 90 mm |

Standards and Compliance

| | |
|----------------------------------|--|
| Environmental Suitability: | Indoor - Euroclass Eca, Sunlight Resistance, Oil Resistance |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca |
| Data Category: | Category 6A |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61034-2 - Smoke Density Min Transmittance = 60% |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = d |
| European Halogen Free Standards: | IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3 |
| European Directive Compliance: | EU CE Mark |
| UK Regulation Compliance: | UKCA Mark |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.152 Revision Date: 04-29-2024 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|---------------|----------------|------------|--------|---------------|
| 74010NH.02305 | Black | Reel | 305 m | 8719605203519 |
| 74010NH.01500 | Gray, RAL 7032 | Reel | 500 m | 8719605192400 |
| 74010NH.00100 | Green | Reel | 100 m | 8719605129918 |
| 74010NH.00500 | Green | Reel | 500 m | 8719605127594 |

© 2024 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Lumberg Automation:](#)

[74010NH.00500](#) [74010NH.00100](#)