



Product: [74005PU](#)

DataTuff® 7, 4PR #26 Str BC, PO ins, S/FTP, PUR HF jkt, AWM 21292

Product Description

DataTuff® 7, 4 Pair AWG 26 Bare Copper - Stranded, Polyethylene insulation, S/FTP - Overall Braid / Individual Foil shielding, PUR Halogen Free jacket , AWM 21292

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | harsh environment, IIoT, factory or process automation, video, audio, data communication, etc. Not rodent protected. |
|------------------------|--|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | Construction n x D | No. of Pairs |
|-----|-----------|------------------|--------------------|--------------|
| 26 | Stranded | BC - Bare Copper | 7x0.16 mm | 4 |

| | |
|------------------------|---|
| Conductor Count: | 8 |
| Total Number of Pairs: | 4 |

Insulation

| Material | Nominal Diameter | Diameter +/- Tolerance |
|--------------------------|------------------|------------------------|
| PE - Polyethylene (Foam) | 1.05 mm | 0.05 mm |

| | |
|--------------|----|
| Bonded-Pair: | No |
|--------------|----|

Color Chart

| Number | Color |
|--------|-----------------------|
| Pair 1 | White/Blue & Blue |
| Pair 2 | White/Orange & Orange |
| Pair 3 | White/Green & Green |
| Pair 4 | White/Brown & Brown |

Inner Shield Material

| Type | Material |
|------|-------------------------|
| Tape | Bi-Laminate (Alum+Poly) |

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

Cabling

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

Outer Shield Material

| Type | Material | Min. Coverage [%] |
|-------|--------------------|-------------------|
| Braid | Tinned Copper (TC) | 65% |

Outer Jacket Material

| Material | Nominal Diameter | Diameter +/- Tolerance | Nominal Wall Thickness |
|-----------------------------------|------------------|------------------------|------------------------|
| PUR - Polyurethane (Halogen Free) | 6.8 mm | 0.3 mm | 0.5 mm |

| | |
|--------------|------------------------|
| Table Notes: | Flame Retardant Sheath |
|--------------|------------------------|

Construction and Dimensions

| | |
|---------------------------------------|----------|
| Min Elongation at Breakof Conductors: | 10 % |
| Min Elongation at Breakof Insulation: | 100 % |
| Min Elongation at Breakof Jacket: | 100 % |
| Min Tensile Strength of Jacket: | 10.3 MPa |

Electrical Characteristics

Conductor DCR

| Max. Conductor DCR | Max. DCR Unbalanced Within Pair [%] |
|--------------------|-------------------------------------|
| 145 Ohm/km | 2 % |

Capacitance

| Max. Capacitance Unbalance | Max. Mutual Capacitance |
|----------------------------|-------------------------|
| 1.6 pF/m | 56 pF/m |

Impedance

| Nominal Characteristic Impedance | Nominal Characteristic Tolerance | Nominal Input Impedance |
|----------------------------------|----------------------------------|-------------------------|
| 100 Ohm | 5 Ohm | 100 +/- 15 Ohm |

Delay

| Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] |
|-----------------|--|
| 40 ns/100m | 70% |

High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] |
|-----------------|-----------------------------------|----------------|------------------|-------------------------|-----------------------------|----------------------------|
| 1 MHz | 2.7 dB/100m | 80 dB | 77 dB | | | |
| 4 MHz | 5.5 dB/100m | 80 dB | 77 dB | 58 dB | 55 dB | 23 dB |
| 10 MHz | 8.5 dB/100m | 80 dB | 77 dB | 50 dB | 47 dB | 25 dB |
| 16 MHz | 10.8 dB/100m | 80 dB | 77 dB | 46 dB | 43 dB | 25 dB |
| 20 MHz | 12.1 dB/100m | 80 dB | 77 dB | 44 dB | 41 dB | 25 dB |
| 31.25 MHz | 15.2 dB/100m | 80 dB | 77 dB | 40 dB | 37 dB | 23.6 dB |
| 62.5 MHz | 27.8 dB/100m | 75.1 dB | 72.1 dB | 34 dB | 31 dB | 21.5 dB |
| 100 MHz | 27.8 dB/100m | 72.4 dB | 69.4 dB | 30 dB | 27 dB | 20.1 dB |
| 200 MHz | 40.1 dB/100m | 67.9 dB | 64.9 dB | 24 dB | 21 dB | 18 dB |
| 300 MHz | 50 dB/100m | 65.3 dB | 62.3 dB | 20 dB | 17 dB | 17.3 dB |
| 600 MHz | 73.3 dB/100m | 60.8 dB | 57.8 dB | 14 dB | 11 dB | 17.3 dB |

Transfer Impedance

| Frequency [MHz] | Transfer Impedance |
|-----------------|--------------------|
| 10 Mhz | Max. 5 mOhm/m |

Current

| Element | Max. Recommended Current [A] |
|-----------|------------------------------|
| Conductor | 1 A |

Voltage

| UL Voltage Rating | Voltage Rating [V] |
|-------------------|-----------------------|
| 30 V RMS | 450 V DC and 300 V AC |

Temperature Range

| | |
|--------------------------|----------------|
| Installation Temp Range: | -15°C To +60°C |
| Storage Temp Range: | -40°C To +80°C |
| Operating Temp Range: | -40°C To +80°C |

Mechanical Characteristics

| | |
|---|---------------|
| Oil Resistance: | IEC 60811-2-1 |
| Max. Pull Tension: | 80 N |
| Min Bend Radius (W/o Pulling Strength): | 65 mm |
| Min Setting Radius: | 30 mm |

Standards

| | |
|--------------------------|-------------------------|
| UL AWM Style Compliance: | AWM 21292 |
| ISO/IEC Compliance: | ISO/IEC 11801-1 |
| CENELEC Compliance: | EN 50173-1 |
| Data Category: | Category 7 |
| ANSI Compliance: | ANSI/TIA 568.2-D (2018) |

Applicable Environmental and Other Programs

| | |
|---------------------------------------|------------|
| Environmental Space: | Indoor |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-01 |

Suitability

| | |
|------------------------------------|------------------|
| Suitability - Burial: | No |
| Suitability - Indoor: | Yes |
| Suitability - Oil Resistance: | Yes |
| Suitability - Outdoor: | Yes - Black only |
| Suitability - Sunlight Resistance: | Yes |

Flammability, LS0H, Toxicity Testing

| | |
|--|----------|
| CSA Flammability: | FT2 |
| IEC 60754-1 - Halogen Amount: | Zero |
| IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity: | 10 µS/mm |
| IEC 60754-2 - Halogen Acid Gas Amount - Min. pH: | 4.3 |

Part Number

Variants

| Item # | Color | Putup Type | Length | EAN |
|----------------|-------------|------------|--------|---------------|
| 74005PU.02B100 | Black | Flat Box | 100 m | 8719605013361 |
| 74005PU.02305 | Black | Reel | 305 m | 8719605013347 |
| 74005PU.02500 | Black | Reel | 500 m | 8719605013354 |
| 74005PU.01500 | Blue, Water | Reel | 500 m | 8719605013330 |

History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.225 Revision Date: 06-30-2021 |
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