



Product: [70008PU](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PUR HF jkt, PROFINET type C, 5M Trailing

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Product Description

DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil + Braid(s) shielding, PUR Halogen Free jacket, PROFINET type C, 5M trailing

Technical Specifications

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | Construction n x D | No. of Quads |
|-----|-----------|--------------------|--------------------|--------------|
| 22 | 19x34 | TC - Tinned Copper | 19x0.15 mm | 1 |

| | |
|------------------------|---|
| Conductor Count: | 4 |
| Total Number of Pairs: | 2 |

Insulation

| Material | Nominal Diameter | Diameter +/- Tolerance |
|-------------------|------------------|------------------------|
| PE - Polyethylene | 1.63 mm | 0.05 mm |

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

Color Chart

| Number | Color |
|--------|--------------------------------|
| Quad 1 | White & Blue & Yellow & Orange |

Inner Jacket

| Material | Nominal Diameter |
|---|------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 4.2 mm |

| | |
|--------------|---------|
| Table Notes: | Bedding |
|--------------|---------|

Outer Shield

| Type | Material | Min. Coverage [%] |
|-------|-------------------------|-------------------|
| Tape | Bi-Laminate (Alum+Poly) | |
| Braid | Tinned Copper (TC) | 85% |

Outer Jacket

| Material | Color | Nominal Diameter | Diameter +/- Tolerance | Separator Material |
|-----------------------------------|------------------|------------------|------------------------|--------------------|
| PUR - Polyurethane (Halogen Free) | Green (RAL 6018) | 6.5 mm | 0.2 mm | non-Woven Tape |

Construction and Dimensions

Cabling

| Description |
|---------------------------|
| 1 quad with center filler |

Electrical Characteristics

Conductor DCR

| Max. Conductor DCR |
|--------------------|
| |

57.1 Ohm/km

Impedance

| Frequency [MHz] | Nominal Characteristic Impedance | Nominal Characteristic Tolerance |
|-----------------|----------------------------------|----------------------------------|
| 1 - 100 | 100 Ohm | 15 Ohm |

Delay

| Max. Delay | Nominal Velocity of Propagation (VP) [%] |
|-------------|--|
| 530 ns/100m | 68% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. ACRF (ELFEXT) [dB] | Min. SRL (Structural Return Loss) |
|-----------------|-----------------------------------|----------------|-------------------------|-----------------------------------|
| 1 MHz | 2.1 dB/100m | 65 dB | 64 dB | |
| 4 MHz | 4 dB/100m | 56 dB | 52 dB | 23 dB |
| 10 MHz | 6.3 dB/100m | 50 dB | 44 dB | 25 dB |
| 16 MHz | 8 dB/100m | 47 dB | 40 dB | 25 dB |
| 31.25 MHz | 11.4 dB/100m | 43 dB | 34 dB | 23.6 dB |
| 62.5 MHz | 16.5 dB/100m | 38 dB | 28 dB | 21.5 dB |
| 100 MHz | 21.3 dB/100m | 35 dB | 24 dB | 20.1 dB |

Transfer Impedance

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

Voltage

| UL Voltage Rating | Voltage Rating [V] |
|-------------------|--------------------|
| 300 V | 300 V |

Temperature Range

| | |
|---------------------------------------|----------------|
| Installation Temp Range: | -5°C To +60°C |
| UL Temp Rating: | 80°C |
| Storage Temp Range: | -40°C To +80°C |
| Operating Temp Range: | -40°C to +80°C |
| Operating Temp Range (Drag Chain Op): | -5°C To +60°C |

Mechanical Characteristics

| | |
|--|--|
| Oil Resistance: | IEC 60811-2-1 |
| Torsion Test: Min Number of Torsions: | 1000000 |
| Torsion Test: Description: | +/- 180° ,12x/min over 1mtr |
| Max. Pull Tension: | 160 N |
| Min. Bend Radius During Installation: | 65 mm |
| Min. Bend Radius During Operation: | 30 mm |
| Min. Bend Radius (Continuous Flexing): | 65 mm |
| Min Setting Radius: | 30 mm |
| Min No. of Drag Chain Cycles: | 5000000 |
| Drag Chain Parameters: | a= 3m/s ² v= 3 m/s and r= 60 mm |

Standards

| | |
|--------------------------|--|
| UL AWM Style Compliance: | UL AWM 20549 |
| ISO/IEC Compliance: | ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011 |
| Data Category: | Category 5e |

Applicable Environmental and Other Programs

| | |
|----------------------|--------|
| Environmental Space: | Indoor |
|----------------------|--------|

Flammability, LS0H, Toxicity Testing

| | |
|-------------------------------|----------------------|
| UL Flammability: | Horizontal flametest |
| CSA Flammability: | FT2 |
| IEC 60754-1 - Halogen Amount: | Pass |

Related Part Numbers

Variants

| Item # | Color | Put-Up Type | Length | EAN |
|----------------|-------|-------------|---------|---------------|
| 70008PU.01B100 | Green | Flat Box | 100 m | 8719605009463 |
| 70008PU.01305 | Green | Reel | 305 m | 8719605009449 |
| 70008PU.01500 | Green | Reel | 500 m | 8719605009456 |
| 70008PU.011000 | Green | Reel | 1,000 m | 8719605009432 |

History

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|----------------------|--|
| Update and Revision: | Revision Number: 0.229 Revision Date: 12-15-2021 |
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