



**Product:** [70007E](#)

DataTuff® 5E, 1Q #22 Str TC, PO ins, F/B, PVC jkt, PROFINET Type B

**Product Description**  
DataTuff® 5E, 1 Quad AWG 22 Tinned Copper - Stranded, Polyethylene insulation, SF/UTP - Overall Braid + Foil shielding, PVC jacket , PROFINET Type B

**Technical Specifications**

**Product Overview**

|                        |                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | PROFINET Cat5e, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|--------------------------------------------------------------------------------------------------------------------------|

**Construction Details**

**Conductor**

| Size   | Stranding | Material           | No. of Pairs | No. of Elements |
|--------|-----------|--------------------|--------------|-----------------|
| 22 AWG | 7x0.25 mm | TC - Tinned Copper | 2            | 4               |

**Insulation**

| Material          | Nom. Insulation Diameter | Color Code                     |
|-------------------|--------------------------|--------------------------------|
| PE - Polyethylene | 1.55 mm (0.0610 in)      | White & Blue & Yellow & Orange |
|                   |                          | 1 Quad                         |

**Cable Core**

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

**Inner Jacket**

| Material                                        | Nom. Diameter    |
|-------------------------------------------------|------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 4.1 mm (0.16 in) |

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

**Outer Shield**

| Shield Type | Material                | Coverage |
|-------------|-------------------------|----------|
| Tape        | Bi-Laminate (Alum+Poly) |          |
| Braid       | Tinned Copper (TC)      | 85%      |

**Outer Jacket**

| Material                 | Nom. Diameter    |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 6.5 mm (0.26 in) |

|                                   |                  |
|-----------------------------------|------------------|
| Overall Cable Diameter (Nominal): | 6.5 mm (0.26 in) |
|-----------------------------------|------------------|

**Electrical Characteristics**

**Electricals**

| Max. Conductor DCR | Nom. Characteristic Impedance |
|--------------------|-------------------------------|
| 57.1 Ohm/km        | 100 Ohm                       |

**Delay**

| Max. Delay  | Nom. Velocity of Prop. |
|-------------|------------------------|
| 530 ns/100m | 68%                    |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. ACRF (ELFEXT) [dB] | Min. SRL (Structural Return Loss) [dB] |
|-----------------|-----------------------------------|----------------|-------------------------|----------------------------------------|
| 1               | 2.1 dB/100m                       | 65.3           | 64                      |                                        |
| 4               | 4.1 dB/100m                       | 56.3           | 52                      | 23                                     |
| 10              | 6.5 dB/100m                       | 50.3           | 44                      | 25                                     |
| 16              | 8.3 dB/100m                       | 47.2           | 40                      | 25                                     |
| 31.25           | 11.7 dB/100m                      | 42.9           | 34                      | 23.6                                   |
| 62.5            | 17 dB/100m                        | 38.4           | 28                      | 21.5                                   |
| 100             | 22 dB/100m                        | 35.3           | 24                      | 20.1                                   |

|              |                                                  |
|--------------|--------------------------------------------------|
| Table Notes: | Reference standard: ISO/IEC 11801 ed 2.0, Cat 5e |
|--------------|--------------------------------------------------|

Transfer Impedance

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

Voltage

| Voltage Rating |
|----------------|
| 300 V          |

Mechanical Characteristics

Temperature

| Operating      | Installation  | Storage        |
|----------------|---------------|----------------|
| -40°C to +80°C | -5°C To +60°C | -40°C to +80°C |

Standards and Compliance

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor - Euroclass Eca, Sunlight Resistance - Black only, Oil Resistance |
| Flammability / Reaction to Fire: | IEC 60332-1-2                                                            |
| CPR Compliance:                  | CPR Euroclass: Eca; CPR UKCA Class: Eca                                  |
| AWM Compliance:                  | AWM 2464                                                                 |
| Data Category:                   | Category 5e                                                              |
| ISO/IEC Compliance:              | ISO/IEC 11801-1                                                          |
| European Directive Compliance:   | EU CE Mark                                                               |
| UK Regulation Compliance:        | UKCA Mark                                                                |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.266 Revision Date: 04-29-2024 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #        | Color | Putup Type | Length  | EAN           |
|---------------|-------|------------|---------|---------------|
| 70007E.01B100 | Green | Flat Box   | 100 m   | 8719605009333 |
| 70007E.01305  | Green | Reel       | 305 m   | 8719605009319 |
| 70007E.01500  | Green | Reel       | 500 m   | 8719605009326 |
| 70007E.011000 | Green | Reel       | 1,000 m | 8719605009296 |
| 70007E.011525 | Green | Reel       | 1,525 m | 8719605009302 |

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