



**Product:** <u>9891</u> ☑

Transceiver 10BASE5, #22-3pr, #20-1pr, FHDPE, Indiv. Foil shielded pairs w/ OA Brd, PVC Jkt, CM

# **Product Description**

IEEE 802.3 Ethernet Transceiver 10BASE5, 20 and 22 AWG stranded tinned copper conductors, foam high-density polyethylene (22 AWG) and PVC (20 AWG) insulation, twisted pairs, Individually foil shielded pairs with overall tinned copper braid shield (95% coverage) drain wire, PVC jacket.

# **Technical Specifications**

## **Product Overview**

| Suitable Applications: | IEEE 802.3 Transceiver Cable |
|------------------------|------------------------------|

# **Construction Details**

#### Conductor

| Element      | No. of Elements | Size   | Stranding | Material           |
|--------------|-----------------|--------|-----------|--------------------|
| Data Pair(s) | 3               | 22 AWG | 7x30      | TC - Tinned Copper |
| Pair(s)      | 1               | 20 AWG | 7x28      | TC - Tinned Copper |

## Insulation

| Element      | Material                 | Nom. Thickness     | Nom. Insulation Diameter | Color Code                                   | Notes |
|--------------|--------------------------|--------------------|--------------------------|--|-------|
| Data Pair(s) | PE - Polyethylene (Foam) | 0.017 in (0.43 mm) | 0.063 in (1.6 mm)        | Yellow & Orange, Blue & Green, Black & White | HDPE  |
| Pair(s)      | PVC - Polyvinyl Chloride | 0.012 in (0.30 mm) | 0.062 in (1.6 mm)        | Gray & Purple                                |       |

#### Inner Shield

| Element      | Shield Type | Material                | Coverage | Notes    |
|--------------|-------------|-------------------------|----------|----------|
| Data Pair(s) | Таре        | Bi-Laminate (Alum+Poly) | 100%     | Foil Out |
| Pair(s)      | Таре        | Bi-Laminate (Alum+Poly) | 100%     | Foil Out |

# Outer Shield

| Shield Type | Material           | Coverage |
|-------------|--------------------|----------|
| Braid       | Tinned Copper (TC) | 95%      |

#### Outer Jacket

# **Electrical Characteristics**

# Electricals

| Element | Nom. Conductor DCR               | Nom. Inner Shield DCR            | Nom. Capacitance<br>Cond-to-Cond | Nom. Capacitance Cond-to-Other<br>(Conds + Shield) | Nom. Characteristic<br>Impedence | Nom. Velocity of<br>Prop. | Max. Current                    |
|---------|----------------------------------|----------------------------------|----------------------------------|--|----------------------------------|---------------------------|---------------------------------|
| Pair(s) | 18.2 Ohm/1000ft                  | 12.4 Ohm/1000ft (40.7<br>Ohm/km) | 16.7 pF/ft (54.8 pF/m)           | 29.5 pF/ft (96.8 pF/m)                             | 78 Ohm                           | 78%                       | 2 Amps per Conductor<br>at 25°C |
| Pair(s) | 11.3 Ohm/1000ft (37.1<br>Ohm/km) | 12.4 Ohm/1000ft (40.7<br>Ohm/km) |                                  |  |                                  |                           | 2.5 Amps per Conductor at 25°C  |

# Voltage

UL Voltage Rating 300 V (CM), 30 V (AWM 2919)

### **Mechanical Characteristics**

#### Temperature

| UL Temperature | Operating      |
|----------------|----------------|
| 80°C           | -20°C to +80°C |

#### **Bend Radius**

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 3.2 in (81 mm)  | 3.2 in (81 mm)    |

| Max. Pull Tension: | 160 lbs (73 kg) |
|--------------------|-----------------|
| Bulk Cable Weight: | 65 lbs/1000ft   |

### **Standards and Compliance**

| Environmental Suitability:       | Indoor   |
|----------------------------------|--|
| ·                                |  |
| Flammability / Reaction to Fire: | UL 1685 FT4 Loading, IEC 60332-1-2   |
| CPR Compliance:                  | CPR Euroclass: Eca   |
| NEC / UL Compliance:             | Article 800, CM  |
| AWM Compliance:                  | AWM 2919   |
| CEC / C(UL) Compliance:          | CM   |
| IEEE Compliance:                 | IEEE 802.3 10Base5   |
| European Directive Compliance:   | EU CE Mark, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| UK Regulation Compliance:        | UKCA Mark  |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)  |

# History

| Update and Revision: | Revision Number: 0.575 Revision Date: 02-03-2025 |
|----------------------|--|

### **Part Numbers**

#### Variants

| Item #       | Color | UPC          | Footnote |
|--------------|-------|--------------|----------|
| 9891 006100  | Blue  | 612825260066 |          |
| 9891 0061000 | Blue  | 612825260073 | С        |
| 9891 006500  | Blue  | 612825260080 | С        |
| 9891 0065000 | Blue  | 612825260097 | CZ       |

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