



Product: [9730NH](#)

Computer Cable for EIA RS-232 Applications

Product Description

24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, 3 twisted pairs each individually Beldfoil® shielded (100% coverage), 24 AWG stranded tinned copper drain wire each pair, LSZH jacket.

Technical Specifications

Product Overview

| | |
|------------------------|--|
| Suitable Applications: | Instrumentation and computer cable; For data transmission applications |
|------------------------|--|

Physical Characteristics (Overall)

Conductor

| AWG | Stranding | Material | No. of Pairs |
|-----|-----------|--------------------|--------------|
| 24 | 7x32 | TC - Tinned Copper | 3 |

| | |
|------------------|---|
| Conductor Count: | 6 |
|------------------|---|

Insulation

| Material | Material Trade Name | Nominal Diameter | Diameter +/- Tolerance |
|--------------------------|---------------------|------------------|------------------------|
| PE - Polyethylene (Foam) | Datalene® | 1.55 mm | 0.06 mm |

Color Chart

| Number | Color |
|--------|---------------|
| Pair 1 | Black & Red |
| Pair 2 | Black & White |
| Pair 3 | Black & Green |

| | |
|--------------|----------------|
| Table Notes: | Shielded pairs |
|--------------|----------------|

Color Chart 2

| Number | Color |
|--------|-------|
| Pair 1 | Red |
| Pair 2 | Green |
| Pair 3 | Blue |

Inner Shield

| Type | Material | Material Trade Name | Thickness of Foil | Drainwire Material | Drainwire AWG |
|------|-------------------------|---------------------|-------------------|--------------------|---------------|
| Tape | Bi-Laminate (Alum+Poly) | Beldfoil® (Z-Fold®) | 9 / 12 µm | TC - Tinned Copper | AWG24/7 |

Outer Shield

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

Outer Jacket

| Material | Nominal Diameter | Min. Wall Thickness | Min. Average Wall Thickness |
|---|------------------|---------------------|-----------------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 8.48 mm | 0.91 mm | 1.14 mm |

Construction and Dimensions

Cabling

| Description | |
|-----------------------------------|--------|
| 3 pairs twisted to cable core | |
| Min Elongation at Breakof Jacket: | 100 % |
| Min Tensile Strength of Jacket: | 10 MPa |

Electrical Characteristics

Conductor DCR

| Nominal Conductor DCR | Nominal Inner Shield DCR |
|-----------------------|--------------------------|
| 78.7 Ohm/km | 49.2 Ohm/km |

Capacitance

| Nom. Capacitance Conductor to Conductor | Nom. Capacitance Conductor to Other Conductor to Shield |
|---|---|
| 41 pF/m | 76.1 pF/m |

Inductance

| Nominal Pair Inductance |
|-------------------------|
| 0.75 μ H/m |

Impedance

| Nominal Characteristic Impedance |
|----------------------------------|
| 100 Ohm |

High Frequency (Nominal/Typical)

| Frequency [MHz] | Nom. Insertion Loss |
|-----------------|---------------------|
| 1 MHz | 3.08 dB/100m |
| 2 MHz | 3.71 dB/100m |
| 3 MHz | 4.43 dB/100m |
| 4 MHz | 5.15 dB/100m |
| 5 MHz | 5.58 dB/100m |
| 12 MHz | 8.43 dB/100m |
| 24 MHz | 11.7 dB/100m |

Current

| Element | Max. Recommended Current [A] |
|--------------|------------------------------|
| Conductor(s) | 2.5 Amps per Conductor |

Voltage

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

Temperature Range

| | |
|---------------------------------------|----------------|
| Installation Temperature Range: | -15°C To +80°C |
| Storage Temperature Range: | -20°C To +80°C |
| Operating Temp Range (Fixed Install): | -15°C To +55°C |

Mechanical Characteristics

| | |
|---------------------------------------|---------|
| Max. Pull Tension: | 150 N |
| Min. Bend Radius During Installation: | 84.8 mm |

Applicable Environmental and Other Programs

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

Flammability, LSOH, Toxicity Testing

| | |
|-------------------------------|----------------|
| IEC Flammability: | IEC 60332-3-24 |
| Other Flammability: | E4156 Part 2 |
| IEC 60754-1 - Halogen Amount: | Zero |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.188 Revision Date: 06-28-2024 |
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