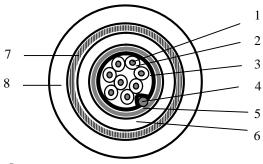
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APPLICATION

Instrumentation and computer cable for EIA RS-485 data transmission applications.

CONSTRUCTION



1. Conductor

2. Insulation

Material

Diameter over insulation

Colour of insulation

3. Foil (Z-fold®)

Material

Thickness

4. Drainwire

5. Braiding

Material

Coverage

6. Sheath

Material

Colour

Nominal thickness

Nominal diameter

7. Armouring

Material

Optical coverage

8. Sheath

Material

Colour

Nominal thickness

Nominal diameter

AWG24 (7xAWG32) tinned Cu

Polyethylene

 $1.73 \pm 0.05 \text{ mm}$

Pair #1: White/blue and blue/white

Pair #2: White/orange and Orange/white Pair #3: White/Green and Green/white

Pair #4: White/Brown and Brown/white

Aluminium / Polyester

 $9/23 \mu m$

AWG24 (7xAWG32) tinned Cu

0.122 mm tinned Cu

90%

FRNC (UV stabilised)

Chrome (like RAL 7037)

0.89 mm

9.90 mm

Single Steel Wire 1.25 mm

>95 %

FRNC (UV stabilised)

Black

1.35 mm

15.10 mm

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SENDING ALL THE RIGHT SIGNALS				

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REQUIREMENTS AND TEST METHODS

Electrical:

Nominal resistance conductor 78.7 Ω /km Nominal resistance shield 6.9 Ω /km Nominal capacitance conductor to conductor 42.0 pF/m Nominal capacitance conductor to shield + other cond. 75.5 pF/m Nominal impedance @ 1 MHz 120 Ω Nominal velocity of propagation 66 % Nominal delay 5.2 ns/m

Nominal attenuation @ 1 MHz 1.97 dB/100m

Test voltage conductor-conductor 2500 VDC, 3 seconds Test voltage conductor-screen 2500 VDC, 3 seconds

Voltage rating 300 V RMS (CM application) 30 V RMS (AWM application)

Maximum continues current per conductor @ 25 °C 2.1 A

Mechanical and physical:

Flame resistance IEC 60332-3C
Oil resistance ASTMD741
Radiation resistance IEC544 (CERN)

Application specification BS 7655 section 6.1 table 1, LTS 3

Halogen content according to IEC754-1 zero

Corrosivity of fire gasses according to IEC754-2

Conductivity $\leq 100 \,\mu\text{S/cm}$ pH value ≥ 3.5 Temperature range installing $\sim 15 \, \text{to} + 80 \,^{\circ}\text{C}$ Temperature range operating (moving installation) $\sim 15 \, \text{to} + 80 \,^{\circ}\text{C}$ Temperature range operating (fixed installation) $\sim 45 \, \text{to} + 80 \,^{\circ}\text{C}$

Temperature range storage -45 to +80 °C
Minimum bending radius 10 x cable diameter

Maximum pulling tension 500 N



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.