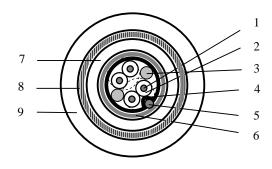


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APPLICATION

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

CONSTRUCTION



1. Conductor

2. Insulation

Material

Diameter over insulation Colour of insulation

3. Filler (2x)

Material

Diameter

Colour

4. Foil (Z-fold®)

Material

Thickness

5. Drainwire

6. Braiding

Material

Coverage

7. Sheath

Material

Colour

Thickness of sheath Diameter over sheath

8. Armouring

Material

Optical coverage

9. Sheath

Material

Colour

Thickness of sheath Diameter over sheath

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

Polypropylene

2.87 mm

White

Aluminium / Polyester

 $9/23 \mu m$

AWG20 (7xAWG28) tinned Cu

0.122 mm tinned Cu

90%

FRNC

Chrome (like RAL 7037)

 $0.89 \pm 0.05 \text{ mm}$

 $8.65\pm0.10~mm$

Corrugated Steel 0.90 mm

>95 %

FRNC (UV stabilised)

Black

 $1.35 \pm 0.15 \text{ mm}$

 $13.10 \pm 0.30 \text{ mm}$



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REQUIREMENTS AND TEST METHODS

Electrical:

 $78.7 \Omega/\text{km}$ Nominal resistance conductor Nominal resistance shield $7.2 \Omega/\text{km}$ Nominal capacitance conductor to conductor 42.0 pF/m Nominal capacitance conductor to shield + other cond. 75.5 pF/m 120Ω Nominal impedance @ 1 MHz Nominal velocity of propagation 66 % Nominal delay 5.2 ns/m Nominal attenuation @ 1 MHz 1.97 dB/100m

Testvoltage conductor-conductor 2500 VDC, 3 seconds Testvoltage 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 -15 to +80 °CTemperature range operating (moving installation) -15 to +80 °CTemperature range operating (fixed installation) -45 to +80 °CTemperature range storage -45 to +80 °CMinimum bending radius -15 to +80 °C -45 to +80 °C -45 to +80 °C

MARKING

Colour code 2116: black sheath with text 'BELDEN V 9842LS 2PR 24AWG SHIELDED LSNH SWA LSNH IEC 332-3C'

PACKAGING

On non-returnable reels with a nominal length of 500m (-0, +20%) or on non-returnable reels with a nominal length of 1000m (-0, +20%).

Each reel is labelled with the following data:

Belden Logo. Belden code number. Item description. Length on the reel. Date of manufacture. CE-marking.



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Belden CDT believes 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.