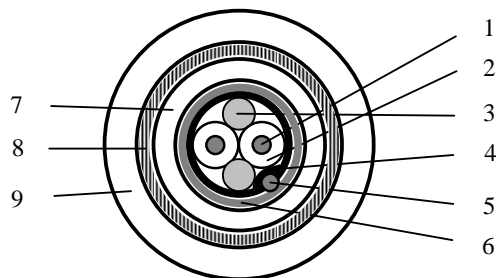
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## APPLICATION

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


## CONSTRUCTION



<b>1. Conductor</b>	AWG24 (7xAWG32) tinned Cu
<b>2. Insulation</b>	
Material	Polyethylene
Diameter over insulation	$1.73 \pm 0.05$ mm
Colour of insulation	White/blue and blue/white
<b>3. Filler (2x)</b>	
Material	Polypropylene
Diameter	1.90 mm
Colour	White
<b>4. Foil (Beldfoil®)</b>	
Material	Aluminium / Polyester
Thickness	9 / 23 $\mu$ m
<b>5. Drainwire</b>	AWG20 (7xAWG28) tinned Cu
<b>6. Braiding</b>	
Material	0.122 mm tinned Cu
Coverage	90%
<b>7. Sheath</b>	
Material	FRNC
Colour	Chrome (like RAL 7037)
Thickness of sheath	$0.89 \pm 0.05$ mm
Diameter over sheath	$5.90 \pm 0.10$ mm
<b>8. Armouring</b>	
Material	Single steel wire 0.90 mm
Optical coverage	>95 %
<b>9. Sheath</b>	
Material	FRNC (UV stabilised)
Colour	Black
Thickness of sheath	$1.30 \pm 0.15$ mm
Diameter over sheath	$10.30 \pm 0.50$ mm

## REQUIREMENTS AND TEST METHODS

### Electrical:

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Nominal resistance conductor	78.7 $\Omega$ /km
Nominal resistance shield	11.0 $\Omega$ /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 $\Omega$
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	$\geq 3.5$
Temperature range installing	-15 to +80 °C
Temperature range operating (moving installation)	-15 to +80 °C
Temperature range operating (fixed installation)	-45 to +80 °C
Temperature range storage	-45 to +80 °C
Minimum bending radius	15 x cable diameter

#### **MARKING**


Colour code 2151: black sheath with text 'BELDEN V 9841LS 1PR 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.