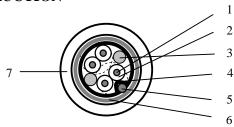
BELDEN	TECHNICAL DATA SHEET	code	9842NH
		version	5
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## **APPLICATION**

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

#### CONSTRUCTION



1. Conductor AWG24 (7xAWG32) tinned Cu

2. Insulation

Material Polyethylene Diameter over insulation  $1.73 \pm 0.05 \text{ mm}$ 

Colour of insulation Pair #1: White/blue and blue/white

orange/white

Pair #2: White/orange and

3. Filler (2x)

Polypropylene Material Diameter 2.87 mm Colour White

4. Foil (Z-fold®)

Material Aluminium / Polyester Thickness  $9/23 \mu m$ AWG20 (7xAWG28) tinned Cu

5. Drainwire

6. Braiding

Material 0.122 mm tinned Cu Coverage 90%

7. Sheath

Material FRNC (UV stabilised) Chrome (like RAL 7037) Colour

 $0.89 \pm 0.05 \text{ mm}$ Thickness of sheath Diameter over sheath  $8.65 \pm 0.10 \text{ mm}$ 

# REQUIREMENTS AND TEST METHODS

**Electrical:** 

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

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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 °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 -45 to +80 °C

Maximum pulling tension 395 N

# **MARKING**

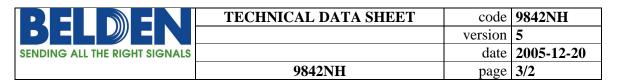
Colour code 2114: chrome sheath with text 'BELDEN V 9842NH 2PR 24AWG SHIELDED LSNH IEC 332-3C'

#### **PACKAGING**

On non-returnable reels with a nominal length of 305m (-0, +10%) or on non-returnable reels with a nominal length of 500m (-0, +10%) or on non-returnable reels with a nominal length of 1000m (-0, +10%).

Each reel is labelled with the following data:

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





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.