




**Product:** [9829NH](#) 

RS232/422 Low Cap, #24-2pr, PE, O/A Foil+Braid, LSZH Jkt, Dca, 100Ω

## Product Description

2-Pair, 24 AWG stranded (7x32) TC conductors, polyethylene insulation, twisted pairs, overall Beldfoil® (100% coverage) + TC braid shield (65% coverage), 24 AWG stranded TC drain wire, LSZH jacket, Flame resistance IEC 60332-3C

## Technical Specifications

### Product Overview

Suitable Applications:	RS-232 extended distance applications; RS-422 applications; computer communications; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, ...); line level audio; panel wiring
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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Pairs
24	7x32	TC - Tinned Copper	2

Conductor Count: 4

#### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene	1.37 mm	0.05 mm

#### Color Chart

Number	Color
Pair 1	White/Blue & Blue/White
Pair 2	White/Orange & Orange/White

#### Outer Shield

Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	65%	9 / 23 µm	TC - Tinned Copper	AWG24/7
Braid	Tinned Copper (TC)		65%			

#### Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	7.1 mm	0.9 mm

### Construction and Dimensions

#### Cabling

Description	Filler
2 pairs and 2 fillers twisted to cable core	Polypropylene (2x) (White, 2.20 mm)

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
78.7 Ohm/km	14.3 Ohm/km

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
50.9 pF/m	90.2 pF/m

#### Impedance

Frequency [MHz]	Nominal Characteristic Impedance
1	100 Ohm

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
520 ns/ft	66%

#### Current

Element	Max. Recommended Current [A]
Conductor(s)	2.1 Amps per Conductor

#### Voltage

Voltage Rating [V]
300 V

### Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature Range:	-45°C To +80°C
Operating Temp Range (Flexible Install):	-15°C To +80°C
Operating Temp Range (Fixed Install):	-45°C To +80°C

### Mechanical Characteristics

Oil Resistance:	IEC 60811-404
Max. Pull Tension:	260 N
Min. Bend Radius During Installation:	71 mm

### Standards

CPR Euroclass:	Dca-s2,d1,a1
CENELEC Compliance:	EN 50290-2-20

### Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Dca
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### Suitability

Suitability - Sunlight Resistance:	Yes
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### Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2, IEC 60332-3-24
IEC 60754-1 - Halogen Amount:	Zero
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	60%

### Related Part Numbers

#### Variants

Item #	Color	Put-Up Type	Length	EAN
9829NH.00152	Chrome	Reel	152 m	8719605022714
9829NH.00305	Chrome	Reel	305 m	8719605022721
9829NH.00500	Chrome	Reel	500 m	8719605022738
9829NH.001000	Chrome	Reel	1,000 m	8719605022707

### History

Update and Revision:	Revision Number: 0.253 Revision Date: 02-03-2025
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