



Product: [8102NH](#)

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

Product Description

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

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
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Insulation

Material	Material Trade Name	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene (Foam)	Datalene®	1.24 mm	0.06 mm

Color Chart

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

Outer Shield

Type	Layer	Material	Material Trade Name	Thickness of Foil	Drainwire Material	Drainwire AWG	Min. Coverage [%]
Tape	1	Bi-Laminate (Alum+Poly)	Beldfoil® (Z-Fold®)	9 / 12 µm	TC - Tinned Copper	24	
Braid	2	Tinned Copper (TC)					65%

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.9 mm	0.8 mm

Table Notes:	UV stabilised
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Construction and Dimensions

Cabling

Description	Filler
2 fillers and 2 pairs twisted to cable core	Polypropylene

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
78.7 Ohm/km	13 Ohm/km

Capacitance

Max. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield	Nom. Capacitance Conductor to Shield
45.9 pF/m	41 pF/m	72.2 pF/m	72.2 pF/m

Inductance

Nominal Pair Inductance
0.75 µH/m

Impedance

Nominal Characteristic Impedance
100 Ohm

Current

Element	Max. Recommended Current [A]
Conductor(s)	1.8 Amps per Conductor

Voltage

UL Voltage Rating	Voltage Rating [V]
AWM 2919: 30 V	300 V type CM V

Table Notes:	Type CM
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Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature Range:	-45°C To +80°C
Operating Temperature Range:	-15°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:	120 N
Min Bend Radius (W/o Pulling Strength):	34.5 mm
Min. Bend Radius During Installation:	69 mm
Min Setting Radius:	69 mm

Standards

UL AWM Style Compliance:	AWM 2919 (30 V RMS)
CPR Euroclass:	Dca-s1,d1,a1
CENELEC Compliance:	EN 50290-2-20

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Dca
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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%
UL voltage rating:	30 V RMS (UL AWM Style 2919)

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	EAN
8102NH.00305	Gray	Reel	305 m	8719605017710

History

Update and Revision:	Revision Number: 0.232 Revision Date: 12-22-2023
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