



Product: [9729NH](#)

RS232/422 Low Cap, #24-2pr, FPO, Indiv. Foil, LSZH Jkt, CMG, 100Ω

Product Description

Computer EIA RS-232/422, Digital Audio Cable, 24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, 2 twisted pairs each individually Beldfoil® shielded (100% coverage), 24 AWG stranded tinned copper drain wire each pair, LSZH jacket.

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass B2ca
Suitable Applications:	Instrumentation and computer cable; For data transmission applications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Conductors	No. of Pairs
24	7x32	TC - Tinned Copper	0.024 mm	4	2

Conductor Count:	4
Total Number of Pairs:	2

Insulation

Material	Material Trade Name	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
FPE - Foamed Polyethylene	Datalene®	1.55 mm	0.06 mm	0.019 in

Color Chart

Number	Color
Pair 1	Black & Red
Pair 2	Black & White

Color Chart1, Table Note:	Shielded pairs
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Color Chart 2

Number	Color
Pair 1	Red
Pair 2	Green

Inner Shield Material

Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum / Polyester	Beldfoil® (Z-Fold®)	100 %	9 / 12 µm	Tinned copper	AWG24/7	7x32

Outer Jacket Material

Material	Nominal Diameter	Min. Wall Thickness	Nominal Wall Thickness
LSZH / FRNC (UV stabilised)	7.90 mm	0.9 mm	1.2 mm

Construction and Dimensions

Stranding

Twists
10.9 twist/ft

Cabling

Description
2 pairs twisted to cable core

Electrical Characteristics

Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR	Nominal Inner Shield DCR
15 Ohm/1000ft	78.7 Ohm/km	59.1 Ohm/km

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
41 pF/m	76.1 pF/m

Inductance

Nominal Inductance	Nominal Pair Inductance
0.23 μ H/ft	0.49 μ H/m

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.384 MHz	4.63 dB/100m
0.7056 MHz	5.35 dB/100m
0.768 MHz	5.91 dB/100m
1.024 MHz	6.5 dB/100m
1.4112 MHz	6.89 dB/100m
1.536 MHz	9.15 dB/100m
2.048 MHz	9.51 dB/100m
2.8224 MHz	13.16 dB/100m
3.072 MHz	1.35 dB/100m
4.096 MHz	1.57 dB/100m
5.6448 MHz	1.78 dB/100m
6.144 MHz	1.84 dB/100m
8.192 MHz	2.13 dB/100m
11.2896 MHz	2.45 dB/100ft
12.288 MHz	2.57 dB/100ft
24.576 MHz	3.57 dB/100ft

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
76 ns/100m	76 %

High Freq

Frequency [MHz]
0.384 MHz
0.7056 MHz
0.768 MHz
1.024 MHz
1.4112 MHz
1.536 MHz
2.048 MHz
2.8224 MHz
3.072 MHz
4.096 MHz
5.6448 MHz
6.144 MHz
8.192 MHz
11.2896 MHz
12.288 MHz

24.576 MHz

Current

Element	Max. Recommended Current [A]
Conductor	1 A

Voltage

UL Voltage Rating	Voltage Rating [V]
300 V RMS (UL AWM Style 2493)	300 V

Temperature Range

Installation Temp Range:	-15°C To +80°C
UL Temp Rating:	80°C
Storage Temp Range:	-45°C To +80°C
Operating Temp Range:	-20°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
Bulk Cable Weight:	36 lbs/1000ft
Max Recommended Pulling Tension:	22 lbs
Min Bend Radius During Installation:	79 mm
Min Bend Radius/Minor Axis:	3.25 in

Standards

NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG
CPR Euroclass:	B2ca-s1,d1,a1
CENELEC Compliance:	EN 50290-2-27
Other Specification:	UL AWM 21088

Applicable Environmental and Other Programs

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2012-05-08
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes

Flammability, LSOH, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL1685 FT4 Loading
ISO/IEC Flammability:	IEC 60332-1-2 and IEC 60332-3-24
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero
UL voltage rating:	300 V RMS (UL AWM Style 2493)

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Length
9729NH.001000	Chrome	1,000 m
9729NH.00152	Chrome	152 m
9729NH.00305	Chrome	305 m
9729NH.00500	Chrome	500 m

Product Notes

Notes:	Datalene« insulation features include low dielectric constant and a dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.
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History

Update and Revision:	Revision Number: 0.244 Revision Date: 02-14-2020
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