

Product: 9729ELW

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

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 jacke, CPR Cca

Technical Specifications

Product Overview

Suitable Applications:	RS-422 applications; computer communications; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, …); digital audio; panel wiring

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	4

Insulation

Material	Material Trade Name	Nominal Diameter	Diameter +/- Tolerance
PE - Polyethylene (Foam)	Datalene®	1.55 mm	0.06 mm

Color Chart

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

Table Notes:	Shielded pairs

Color Chart 2

Number	Color
Pair 1	Red
Pair 2	Green

Inner Shield

Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil® (Z-Fold®)	100%	9 / 12 µm	TC - Tinned Copper	AWG24/7	7x32

Outer Jacket

Material	Nominal Diameter	Min. Wall Thickness	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	8.10 mm	0.9 mm	1.3 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 µH/ft	0.49 µH/m

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

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

Delay

Nominal Velocity of Propagation (VP) [%]
76%

High Frequency

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(s)	1 A

Voltage

Voltage Rating [V]
300 V

Temperature Range

Installation Temperature Range:	-15°C To +80°C
UL Temp Rating:	80°C
Storage Temperature Range:	-45°C To +80°C
Operating Temperature 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
Max. Pull Tension:	22 lbs
Min. Bend Radius During Installation:	79 mm
Min. Bend Radius/Minor Axis:	3.25 in

Standards

CPR Euroclass:	Cca-s1,d2,a1
CENELEC Compliance:	EN 50290-2-20

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Cca
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
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%

Plenum/Non-Plenum

Plenum (Y/N):	No

Related Part Numbers

Variants

Item #
9729ELW.00500

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.

History

Update and Revision:	Revision Number: 0.42 Revision Date: 07-02-2025

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