Belden



Product: 89729

RS-232/422 Low Cap, #24-2pr, FFEP, Indiv. Foil, PVDF Jkt, CMP, 100Ω

Product Description

Computer EIA RS-232/422, Digital Audio Cable, 2-Pair, 24 AWG stranded (7x32) tinned copper conductors, foam FEP insulation, individually shielded pairs with Beldfoil® (100% coverage), 24 AWG stranded tinned copper drain wire, overall fluorocopolymer jacket, plenum rated

Technical Specifications

Product Overview

Suitable Applications:	extreme high temperature environments; RS-232 extended distance applications; RS-422 applications; computer communication; low voltage analog signals (4-20ma, 0-10v, ...); low voltage digital control (24v, …); line level audio; panel wiring

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	2	24 AWG	7x32	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	FEP - Fluorinated Ethylene Propylene (Foam)	0.019 in (0.48 mm)	0.062 in (1.6 mm)	Western Electric Standard

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type	Notes
Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC	each pair

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVDF - Polyvinylidene Fluoride	0.017 in (0.43 mm)	0.261 in (6.63 mm)

Overall Cable Diameter (Nominal):	0.261 in (6.63 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Inner Shield DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Delay	Nom. Inductance	Nom. Velocity of Prop.	Max. Current
Pair(s)	28.8 Ohm/1000ft	16.19 Ohm/1000ft (53.12 Ohm/km)	13.5 pF/ft (44.3 pF/m)	22.5 pF/ft (73.8 pF/m)	100 Ohm	1.3 ns/ft	0.24 µH/ft (0.79 µH/m)	76%	2.1 Amps per Conductor at 25°C

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss (Attenuation)
0.384	0.74 dB/100ft
0.7056	0.87 dB/100ft
0.768	0.89 dB/100ft
1.024	0.95 dB/100ft
1.4112	1.03 dB/100ft
1.536	1.06 dB/100ft
2.048	1.17 dB/100ft
2.8224	1.37 dB/100ft

3.072	1.44 dB/100ft
4.096	1.67 dB/100ft
5.6448	1.89 dB/100ft
6.144	1.96 dB/100ft
8.192	2.26 dB/100ft
11.2896	2.59 dB/100ft
12.288	2.71 dB/100ft
24.576	3.73 dB/100ft

Voltage

UL Voltage Rating
300 V (CMP)

Mechanical Characteristics

Temperature

UL Temperature	Operating
150°C	-20°C to +150°C

Bend Radius

Stationary Min.	Installation Min.
2.6 in (66 mm)	2.6 in (66 mm)

Max. Pull Tension:	27.5 lbs (12.5 kg)
Bulk Cable Weight:	27 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	NFPA 262 (UL910), FT6
CPR Compliance:	CPR Euroclass: Fca
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
European Directive Compliance:	EU CE Mark, REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Non-Plenum Number:	9729

History

Update and Revision:	Revision Number: 0.507 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	UPC	Footnote
89729 0081000	Gray	612825221135	C
89729 008500	Gray	612825221142	C
89729 0085000	Gray	612825221159	

Footnote:	C - CRATE REEL PUT-UP.

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