



**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, 24 AWG stranded (7x32) tinned copper conductors, foam FEP insulation, twisted pairs, individually shielded 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
------------------------	--

### Physical Characteristics (Overall)

#### Conductor

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

Conductor Count: 4

#### Insulation

Material	Nominal Wall Thickness
FEP - Fluorinated Ethylene Propylene (Foam)	0.019 in

#### Color Chart

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

#### Inner Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil®	100 %	TC - Tinned Copper	24	7x32

#### Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVDF - Polyvinylidene Fluoride	0.261 in	0.017 in

### Construction and Dimensions

#### Stranding

Lay Direction	Twists
Left Hand	6.9 twist/ft

### Electrical Characteristics

#### Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR
14.4 Ohm/1000ft	24 Ohm/1000ft

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
13.5 pF/ft	22.5 pF/ft

#### Inductance

Nominal Inductance
0.24 $\mu$ H/ft

#### Impedance

Nominal Characteristic Impedance
100 Ohm

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
0.384 MHz	0.74 dB/100ft
0.7056 MHz	0.87 dB/100ft
0.768 MHz	0.89 dB/100ft
1.024 MHz	0.95 dB/100ft
1.4112 MHz	1.03 dB/100ft
1.536 MHz	1.06 dB/100ft
2.048 MHz	1.17 dB/100ft
2.8224 MHz	1.37 dB/100ft
3.072 MHz	1.44 dB/100ft
4.096 MHz	1.67 dB/100ft
5.6448 MHz	1.89 dB/100ft
6.144 MHz	1.96 dB/100ft
8.192 MHz	2.26 dB/100ft
11.2896 MHz	2.59 dB/100ft
12.288 MHz	2.71 dB/100ft
24.576 MHz	3.73 dB/100ft

#### Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
76 ns/100m	1.3 ns/ft	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

Max. Recommended Current [A]
2 Amps per conductor @ 25°C A

Current Table Note: 10C Temperature Rise

#### Voltage

UL Voltage Rating
300 V RMS

#### Temperature Range

Operating Temp Range:	-20°C to +150°C
-----------------------	-----------------

## Mechanical Characteristics

Bulk Cable Weight:	27 lbs/1000ft
Max Recommended Pulling Tension:	33 lbs
Min Bend Radius/Minor Axis:	2.75 in

## Standards

NEC Articles:	800
NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
CPR Euroclass:	Fca

## Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Indoor:	Yes
-----------------------	-----

## Flammability, LSOH, Toxicity Testing

UL Flammability:	NFPA 262 Plenum Flame Test (UL910)
CSA Flammability:	FT6
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	Yes
---------------	-----

## Part Number

Non-Plenum Number:	9729
--------------------	------

## Variants

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

Footnote:	C - CRATE REEL PUT-UP.
-----------	------------------------

## History

Update and Revision:	Revision Number: 0.246 Revision Date: 04-28-2020
----------------------	--

© 2020 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[89729 008500](#) [89729 0081000](#) [89729 0085000](#)