Belden



Product: 8102

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

Product Description

Computer EIA RS-232/422 Cable, 24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, twisted pairs, overall Beldfoil® (100% coverage) + tinned copper braid shield (65% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket

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

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)	PE - Polyethylene (Foam)	0.013 in (0.33 mm)	0.049 in (1.2 mm)	Western Electric Standard

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC
Braid	Tinned Copper (TC)	65%	

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.035 in (0.89 mm)	0.270 in (6.86 mm)

Overall Cable Diameter (Nominal):	0.270 in (6.86 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Inductance	Nom. Velocity of Prop.	Max. Current
Pair(s)	24 Ohm/1000ft	12.5 pF/ft (41.0 pF/m)	22 pF/ft (72 pF/m)	100 Ohm	0.201 µH/ft (0.659 µH/m)	78%	1.8 Amps per Conductor at 25ºC

Nom Outer Shield DCR@Cond DCR1-cnv:	4.6 Ohm/1000ft (15 Ohm/km)

Voltage

UL Voltage Rating
300 V (CM), 30 V (UL AWM 2919)

Mechanical Characteristics

Temperature

UL Temperature	Operating
80°C	-30°C to +80°C

Bend Radius

Stationary Min.	Installation Min.
2.7 in (69 mm)	2.7 in (69 mm)

Max. Pull Tension:	36 lbs (16 kg)
Bulk Cable Weight:	34 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor (Not Riser or Plenum), Indoor
Flammability / Reaction to Fire:	UL 1685 FT4 Loading, IEC 60332-1-2
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	Article 800, CM
AWM Compliance:	AWM 2919
CEC / C(UL) Compliance:	CM
European Directive Compliance:	EU CE Mark, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Plenum Number:	88102

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: 0.503 Revision Date: 09-07-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC/EAN	Footnote
8102.0030	Chrome	Reel	30 m	8719605017680	
8102 060100	Chrome	Reel	100 ft	612825194743	
8102.01152	Chrome	Reel	152 m	8719605017703	
8102.00305	Chrome	Reel	305 m	8719605017697	
8102 060500	Chrome	Reel	500 ft	612825194774	C
8102 0601000	Chrome	Reel	1,000 ft	612825194750	C
8102.001000	Chrome	Reel	1,000 m	8719605017673	
8102 0605000	Chrome	Reel	5,000 ft	612825194781	C
8102 06010000	Chrome	Reel	10,000 ft	612825194767	C Y

Footnote:	C - CRATE REEL PUT-UP., Y - FINAL PUT-UP LENGTH MAY VAR -10% TO +20% FROM LENGTH SHOWN. MAY CONTAIN 2 PIECES. MINIMUM LENGTH OF ANY ONE PIECE IS 1500'.

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