

Product: 8178

RS232/422 Low Cap, #24-18pr, FPO, Indiv.& O/A Foils+Braid, PVC Jkt, CM, 100Ω

Product Description

Computer EIA RS-232/422, Digital Audio Cable, 24 AWG stranded (7x32) tinned copper conductors, Datalene® insulation, 18 twisted pairs individually Beldfoil® shielded + overall 100% Beldfoil® + tinned copper braid shield (65% coverage), drain wire, PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	RS-232 Extended Distance & RS-422 Applications; Computer Communications; Low Voltage Analog signals (4-20ma, 0-10v, ...); Low Voltage Digital Control (24v, …); Digital Audio; Panel Wiring

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	18	24 AWG	7x32	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Color Code
Pair(s)	PE - Polyethylene (Foam)	0.019 in (0.48 mm)	Black & Red, Black & White, Black & Green, Black & Blue, Black & Yellow, Black & Brown, Black & Orange, Red & White, Red & Green, Red & Blue, Red & Yellow, Red & Brown, Red & Orange, Green & White, Green & Blue, Green & Yellow, Green & Brown, Green & Orange

Inner Shield

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

Outer Shield

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

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
PVC - Polyvinyl Chloride	0.065 in (1.7 mm)	0.696 in (17.7 mm)

Overall Cable Diameter (Nominal):	0.696 in (17.7 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Pair(s)	24 Ohm/1000ft (79 Ohm/km)	12.5 pF/ft (41.0 pF/m)	22 pF/ft (72 pF/m)	100 Ohm	78%	1 Amp per Conductor at 25ºC

Voltage

UL Voltage Rating
300 V (CM), 300 V (UL AWM 2493)

Mechanical Characteristics

Temperature

UL Temperature	Operating
60°C (UL AWM 2493)	-40°C to +60°C

Bend Radius

Stationary Min.	Installation Min.
7.0 in (180 mm)	7.0 in (180 mm)

Max. Pull Tension:	372 lbs (169 kg)
Bulk Cable Weight:	214 lbs/1000ft (318 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	UL1685 UL Loading
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CM
AWM Compliance:	AWM 2493
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)

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: 0.338 Revision Date: 12-22-2023

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
8178 060100	Chrome	Reel	100 ft	612825195856	C
8178 0601000	Chrome	Reel	1,000 ft	612825195863	C

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