BELDEN
SENDING ALL THE RIGHT SIGNALS



Part Number: 8163

RS-232/422 Low Cap, #24-3pr, 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, twisted pairs individually Beldfoil® shielded + overall 100% Beldfoil® + tinned copper braid shield (65% coverage), drain wire, PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Conductors	No. of Pairs
24	7x32	TC - Tinned Copper	6	3

Conductor Count:	6
Conductor Size:	24 AWG

Insulation

Material	Material Trade Name	Nominal Wall Thickness
FPE - Foamed Polyethylene	Datalene®	0.019 in

Color Chart

Number	Color
1	Black & Red
2	Black & White
3	Black & Green

Color Chart 2

Number
8

Inner Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Aluminum Foil-Polyester Tape	Beldfoil® (Z-Fold®)	100 %	TC - Tinned Copper	24	7x32

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester	Beldfoil®	100 %
Braid	2	TC - Tinned Copper		65 %

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.359 in	0.048 in

Electrical Characteristics

Conductor DCR

Individual Pair Nominal Shield DCR	Nominal Conductor DCR	Nominal Outer Shield DCR
18 Ohm/1000ft	24 Ohm/1000ft	4.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
12.5 pF/ft	22 pF/ft

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
78 ns/100m	78 %

Current

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

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Operating Temp Range:	-40°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	62 lbs/1000ft
Max Recommended Pulling Tension:	84 lbs
Min Bend Radius/Minor Axis:	3.75 in
Min Bend Radius/Installation:	8 in

Standards

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
UL AWM Style:	2493 (300 V 60°C)
CPR Euroclass:	Eca

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):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1581 Vertical Tray
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	Footnote
8163.0030	Chrome	
8163.00305	Chrome	
8163.01152	Chrome	
8163 060100	Chrome	

8163 0601000	Chrome	C
8163 060500	Chrome	C
8163 0605000	Chrome	C

Footnote:	C - CRATE REEL PUT-UP.

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.

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