



Part Number: 9903

Transceiver 10BASE5, #28-3pr, #24-1c, PO, Isolated Shields, PVC Jkt, CMG

Product Description

IEEE 802.3 Ethernet Transceiver 10BASE5, 28 and 24 AWG stranded tinned copper conductors, polypropylene insulation, twisted pairs, overall polyester isolation tape + Duofoil® + tinned copper braid shield (92% coverage), drain wire, light gray PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	IEEE 802.3 Transceiver Cable
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
28	7x36	TC - Tinned Copper	3
24	7x32	TC - Tinned Copper	1

Conductor Count:	8
Conductor Size:	28 AWG

Insulation

Element	Material	Nominal Wall Thickness
28	PP - Polypropylene	0.009 in
24	PP - Polypropylene	0.01 in

Color Chart

Number	Color
78 Ohm	Gray & White
78 Ohm	Yellow & Orange
78 Ohm	Blue & Green
Power	Black & Red

Inner Shield Material

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

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester/Aluminum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		90 %

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness	Separator Material
PVC - Polyvinyl Chloride	0.25 in	0.033 in	Polyester Tape

Electrical Characteristics

Conductor DCR

Element	Nominal Conductor DCR	Nominal Outer Shield DCR
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28 AWG	65 Ohm/1000ft	2.9 Ohm/1000ft
24 AWG	24 Ohm/1000ft	

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
19.7 pF/ft	34.8 pF/ft

Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
78 Ohm	± 5 Ohm

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
66 ns/100m	1.54 ns/ft	66 %

Current

Max. Recommended Current [A]
Per conductor @ 25°C: .875 A

Voltage

UL Description	UL Voltage Rating
UL AWM Style 2919	30 V RMS (UL AWM Style 2919)
CMG	300 V RMS (CMG)

Temperature Range

UL Temp Rating:	80°C (UL AWM Style 2919)
Operating Temp Range:	-20°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	39 lbs/1000ft
Max Recommended Pulling Tension:	68 lbs
Min Bend Radius/Minor Axis:	2.5 in
Min Bend Radius/Installation:	20 in

Standards

NEC Articles:	800
NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG
UL AWM Style:	2919 (30 V 80°C)
CPR Euroclass:	Eca
IEEE Specification:	802.3

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, LSOH, Toxicity Testing

CSA Flammability:	FT4
UL voltage rating:	30 V RMS (UL AWM Style 2919)

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Footnote
9903 E4X1000	Gray, Light Dec	C
9903 E4X500	Gray, Light Dec	

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

Notes:	Polyester separator tape over pairs
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