



Part Number: 7838A

T1/DS1 Central Office, 2 Pair 22 AWG, CM

Product Description

2 Twisted Pair 22 AWG solid tinned copper conductors, Datalene® insulation, individually shielded with 100% Beldfoil® shield, 24 AWG solid tinned copper drain wire each pair, PVC jacket, CM rated.

Technical Specifications

Product Overview

Environmental Space:	Indoor Rated (Not Riser or Plenum)
Suitable Applications:	T1, DS1, Data

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
22	Solid	TC - Tinned Copper	0.025 in	2

Insulation

Material	Material Trade Name	Nominal Diameter
PO - Polyolefin w/Foam Polyolefin	Datalene®	0.072 in

Color Chart

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

Inner Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire Diameter	Drainwire AWG	Drainwire Construction n x D	Drainwire Position
Tape	Aluminum Foil-Polyester Tape	Beldfoil®	100 %	TC - Tinned Copper	0.021 in	24	Solid	Over shield tape, under polyester separator tape

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	.202 x .360 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
16.7 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor
14.5 pF/ft

Inductance

Nominal Inductance
0.24 µH/ft

Impedance

Max. Differential Impedance (1MHz)
105

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
772 kHz	4.3 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.41 ns/ft	72 %

Current

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

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	34 lbs/1000ft
Max Recommended Pulling Tension:	34 lbs
Min Bend Radius/Minor Axis:	2 in

Standards

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	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

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	UPC	Length	Footnote
7838A 0601000	Chrome	612825190127	1,000 ft	C
7838A 0602000	Chrome	612825190134	2,000 ft	C
7838A 0605000	Chrome	612825190141	5,000 ft	C

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

Notes:	Single conductors are dual insulated. The outer layer of insulation must be stripped off before attaching modular connectors. Use a stripping tool such as Cooper Tools Xcelite model 103-S, or equivalent with a mechanical stop to avoid nicking the inner insulation. RJ-45 Compatible.
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History

Update and Revision:	Revision Number: 0.186 Revision Date: 08-22-2019
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