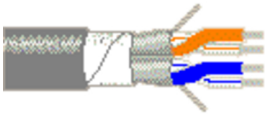




Product: [7838A](#)



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

Suitable Applications:	T1, DS1, Data
------------------------	---------------

Physical Characteristics (Overall)

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

Material	Material Trade Name	Nominal Diameter
PE - Polyethylene (Foam)	Datalene®	0.072 in

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

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire Diameter	Drainwire AWG	Drainwire Construction n x D	Drainwire Position
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	TC - Tinned Copper	0.021 in	24	Solid	Over shield tape, under polyester separator tape

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

Electrical Characteristics

Nominal Conductor DCR
16.7 Ohm/1000ft

Nom. Capacitance Conductor to Conductor
14.5 pF/ft

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 at 25°C

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

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

Mechanical Characteristics

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

Standards

NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CM
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

Environmental Space:	Indoor Rated (Not Riser or Plenum)
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	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, LS0H, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Related Part Numbers

--

Variants

Item #	Color	Put-Up Type	Length	UPC
7838A 0601000	Chrome	Reel	1,000 ft	612825190127
7838A 0602000	Chrome	Reel	2,000 ft	612825190134
7838A 0605000	Chrome	Reel	5,000 ft	612825190141

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

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.
--------	--

History

Update and Revision:	Revision Number: 0.363 Revision Date: 02-03-2025
----------------------	--

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.