



Product: <u>8451</u> ☑

Audio & Instrumentation, 1 Pair 22 AWG, TC, O/A Foil, CM

Product Description

1 Pair 22 AWG stranded (7x30) TC conductors, polypropylene insulation, paper wrap, twisted pair, overall Beldfoil® shield (100% coverage), 22 AWG stranded TC drain wire, PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	for use with automatic stripping equipments; low voltage analog signals (4-20ma, 0-10v,); low voltage digital control (24v,); line level audio; computer communication; panel wiring

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	22	7x30	TC - Tinned Copper	1
Conducto	r Count	:	2	
Total Num	nber of	Pairs:	1	

Insulation

Material	Nominal Wall Thickness
PP - Polypropylene	0.008 in

Color Chart

Number	Color
1	Black & Red

Outer Shield Material

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Alum / Poly	Beldfoil® (Z-Fold®)	100 %	TC - Tinned Copper	22	7x30

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.138 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
14.5 Ohm/1000ft	14.1 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
34 pF/ft	67 pF/ft

Inductance

Nominal Inductance

Impedance

Nominal Characteristic Impedance
45 Ohm

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.5 ns/ft	66 %

Current

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

Voltage

UL Voltage Rating 300 V RMS

Temperature Range

Operating Temp Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	15 lbs/1000ft
Max Recommended Pulling Tension:	27 lbs
Min Bend Radius/Minor Axis:	1.5 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Riser
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 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor: Yes	
Suitability - Indoor: Yes	

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No			

Part Number

Variants

Item #	Color	Putup Type	Length	UPC
8451 010100	Black	Reel	100 ft	612825207726
8451 010500	Black	Reel	500 ft	612825207764
8451 010U500	Black	UnReel	500 ft	612825427414

8451 0101000	Black	Reel	1,000 ft	612825207733
8451 010U1000	Black	UnReel	1,000 ft	612825207702
8451 010Z1000	Black	ReelTuff Box	1,000 ft	612825208129
8451 01015000	Black	Reel	5,000 ft	612825207757
8451 0105000	Black	Reel	5,000 ft	612825207696
8451 01010000	Black	Reel	10,000 ft	612825207740
8451 008500	Gray	Reel	500 ft	612825207658
8451 008U500	Gray	UnReel	500 ft	612825427407
8451 0081000	Gray	Reel	1,000 ft	612825207689
8451 008U1000	Gray	UnReel	1,000 ft	612825207665
8451 008Z1000	Gray	ReelTuff Box	1,000 ft	612825207719

Footnote:

C - CRATE REEL PUT-UP.

Product Notes

Notes:	Unique paper separator facilitates jacket stripping.

History

Update and Revision:	Revision Number: 0.285 Revision Date: 05-19-2020

© 2020 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.