Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



8451 Multi-Conductor - Single-Pair Cable

For more Information please call

1-800-Belden1



General Description:

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.

Physical Characteristics (Overall)				
Conductor AWG:				
#Pairs AWG Stranding Conductor Material				
1 22 7x30 TC - Tinned Copper				
Total Number of Conductors:	2			
Insulation Insulation Material:				
Insulation Material Wall Thickness (in.)				
PP - Polypropylene .008				
Outer Shield Outer Shield Material:				
Outer Shield Trade Name Type Outer Shield Material Cov.	erage (%)			
Beldfoil® (Z-Fold®) Tape Aluminum Foil-Polyester Tape 100				
Outer Shield Drain Wire AWG:				
AWG Stranding Drain Wire Conductor Material 22 7x30 TC - Tinned Copper				
Outer Jacket Outer Jacket Material:				
Outer Jacket Material				
PVC - Polyvinyl Chloride				
Overall Cable				
Overall Nominal Diameter:	0.138 in.			
Pair Pair Color Code Chart:				
Number Color				
1 Black & Red				
Mechanical Characteristics (Overall)				
Operating Temperature Range:	-20°C To +75°C			
Bulk Cable Weight:	15 lbs/1000 ft.			
Max. Recommended Pulling Tension:	27 lbs.			
Min. Bend Radius/Minor Axis:	1.500 in.			
Applicable Specifications and Agency Compliance (Overall)				
Applicable Standards & Environmental Programs				
NEC/(UL) Specification:	CMR			
CEC/C(UL) Specification:	CMG			
EU Directive 2011/65/EU (ROHS II):	Yes			
EU CE Mark:	Yes			
EU Directive 2000/53/EC (ELV):	Yes			
EU Directive 2002/95/EC (RoHS):	Yes			
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004			
EU Directive 2002/96/EC (WEEE):	Yes			
EU Directive 2002/44/EC (PED):	Vec			

Page 1 of 3 01-09-2015

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



8451 Multi-Conductor - Single-Pair Cable

CA Prop 65 (CJ for Wire & Cable):	Yes	
MII Order #39 (China RoHS):	Yes	
Flame Test		
UL Flame Test:	UL1666 Vertical Shaft	
CSA Flame Test:	FT4	
Plenum/Non-Plenum		
Plenum (Y/N):	No	
Electrical Characteristics (Overall)		
Nom. Characteristic Impedance:		
Impedance (Ohm) 45		
Nom. Inductance:		
Inductance (µH/ft) .17		
Nom. Capacitance Conductor to Conductor:		

Nominal Velocity of Propagation:

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

VP (%)

Nominal Delay:

Delay (ns/ft)

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 14.1

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current 2.9 Amps per conductor @ 25°C

Notes (Overall)

Notes: Unique paper separator facilitates jacket stripping.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8451 008U1000	1,000 FT	16.000 LB	GRAY		2 #22 PP SHLD PVC FR
8451 008U500	500 FT	8.500 LB	GRAY		2 #22 PP SHLD PVC FR
8451 0081000	1,000 FT	16.000 LB	GRAY	С	2 #22 PP SHLD PVC FR
8451 008500	500 FT	8.000 LB	GRAY		2 #22 PP SHLD PVC FR
8451 010U1000	1,000 FT	16.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010U500	500 FT	8.500 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010100	100 FT	2.200 LB	BLACK		2 #22 PP SHLD PVC FR
8451 0101000	1,000 FT	16.000 LB	BLACK	С	2 #22 PP SHLD PVC FR
8451 01010000	10,000 FT	160.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 01015000	15,000 FT	240.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010500	500 FT	8.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 0105000	5,000 FT	80.000 LB	BLACK		2 #22 PP SHLD PVC FR

Notes: C = CRATE REEL PUT-UP.

Page 2 of 3

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



8451 Multi-Conductor - Single-Pair Cable

Revision Number: 1 Revision Date: 07-30-2013

© 2015 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 herein 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 "AS IS" 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 EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

product. 'Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

Page 3 of 3