Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION





83503 Multi-Conductor - Audio, Control and Instrumentation Cable

For more Information please call

1-800-Belden1



General Description:

24 AWG stranded (7x32) TC conductors, conductors cabled, plenum, FEP insulation, overall Beldfoil® (100% coverage) + TC braid shield (85% coverage), FEP jacket.

3

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
3	24	7x32	TC - Tinned Copper

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)
FEP - Fluorinated Ethylene Propylene	0.1524

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	85

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
FEP - Fluorinated Ethylene Propylene	0.3556

Overall Cable

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	White
3	Red

Overall Nominal Diameter: 3.429 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-70°C To +200°C
Bulk Cable Weight:	23.811 Kg/Km
Max. Recommended Pulling Tension:	71.171 N
Min. Bend Radius/Minor Axis:	38.100 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes

Page 1 of 3 01-30-2019

Detailed Specifications & Technical Data





83503 Multi-Conductor - Audio, Control and Instrumentation Cable

E	U CE Mark:	Yes
E	U Directive 2000/53/EC (ELV):	Yes
E	U Directive 2002/95/EC (RoHS):	Yes
E	U RoHS Compliance Date (mm/dd/yyyy):	04/01/2005
E	U Directive 2002/96/EC (WEEE):	Yes
E	U Directive 2003/11/EC (BFR):	Yes
С	A Prop 65 (CJ for Wire & Cable):	Yes
N	III Order #39 (China RoHS):	Yes
Flam	e Test	
U	IL Flame Test:	NFPA 262
С	SA Flame Test:	FT6
Plen	um/Non-Plenum	
P	Plenum (Y/N):	Yes

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 65.62

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 118.116

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 21.9827

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current
2 Amps per conductor @ 25°C

Notes (Overall)

Notes: Plenum Cables, except for Flamarrest® jacket, are suitable for Outdoor and Direct Burial application.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83503 0021000	1,000 FT	18.000 LB	RED	С	3#24 FEP SH FEP
83503 002500	500 FT	9.500 LB	RED	С	3#24 FEP SH FEP

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-03-2012

© 2019 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,

Page 2 of 3 01-30-2019

Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



83503 Multi-Conductor - Audio, Control and Instrumentation Cable

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, and the identification of materials listed as reportable or restricted within the 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 itself or the one that it becomes a part of. This 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. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 2014/35/EU).

Page 3 of 3 01-30-2019