# **Detailed Specifications & Technical Data**

## **METRIC MEASUREMENT VERSION**





# 83709 Multi-Conductor - Audio, Control and Instrumentation Cable

For more Information please call

1-800-Belden1



# **General Description:**

16 AWG stranded (19x29) TC conductors, conductors cabled, plenum, FEP insulation, overall Beldfoil® (100% coverage) + TC braid shield (85% coverage) FEP jacket.

9

# **Physical Characteristics (Overall)**

## Conductor

#### AWG:

# Conductors	AWG	Stranding	Conductor Material
9	16	19x29	TC - Tinned Copper

Total Number of Conductors:

#### Insulation

#### **Insulation Material:**

Insulation Trade Name	Insulation Material	Wall Thickness (mm)
Teflon®	FEP - Fluorinated Ethylene Propylene	0.1778

#### **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 Trade Name	Outer Jacket Material	Nom. Wall Thickness (mm)
Teflon®	FEP - Fluorinated Ethylene Propylene	0.3556

### **Overall Cable**

## **Overall Cabling Color Code Chart:**

Number	Color
1	Black
2	White
3	Red
4	Green
5	Orange
6	Blue
7	White/Black
8	Red/Black
9	Green/Black

Overall Nominal Diameter: 7.798 mm

# **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-70°C To +200°C
Bulk Cable Weight:	171.143 Kg/Km
Max. Recommended Pulling Tension:	1214.359 N
Min. Bend Radius/Minor Axis:	82.550 mm

Page 1 of 3 01-30-2019

# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



# 83709 Multi-Conductor - Audio, Control and Instrumentation Cable

Applicable Specifications and Agency C	ompliance (Overall)			
Applicable Standards & Environmental Programs				
NEC/(UL) Specification:	CMP			
CEC/C(UL) Specification:	CMP			
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):	04/01/2005			
EU Directive 2002/96/EC (WEEE):	Yes			
EU Directive 2003/11/EC (BFR):	Yes			
CA Prop 65 (CJ for Wire & Cable):	Yes			
MII Order #39 (China RoHS):	Yes			

#### **Flame Test**

CSA Flame Test: FT6

## Plenum/Non-Plenum

Plenum (Y/N): Yes

## **Electrical Characteristics (Overall)**

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 114.835

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 206.703

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 14.5348

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 8.76027

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current 4.5 Amps per conductor @ 25°C

# **Notes (Overall)**

Notes: Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

# **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83709 0021000	1,000 FT	120.000 LB	RED	С	9#16 FEP SH FEP
83709 002500	500 FT	61.000 LB	RED	С	9#16 FEP SH FEP

#### Notes:

C = CRATE REEL PUT-UP.

Page 2 of 3 01-30-2019

# **Detailed Specifications & Technical Data**

#### METRIC MEASUREMENT VERSION



## 83709 Multi-Conductor - Audio, Control and Instrumentation Cable

Revision Number: 2 Revision Date: 09-04-2012

© 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, 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).