Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



83659 Multi-Conductor - Audio, Control and Instrumentation Cable



For more Information please call

1-800-Belden1



General Description:

18 AWG stranded (19x30) TC conductors, conductors cabled, plenum, FEP insulation, overall Beldfoil® (100% coverage) + TC braid shield (85% coverage), FEP jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
9	18	19x30	TC - Tinned Copper

Total Number of Conductors:

9

Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)
FEP - Fluorinated Ethylene Propylene	0.1778

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Таре	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	0.381		

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:

6.731 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-70°C To +200°C
Bulk Cable Weight:	120.544 Kg/Km
Max. Recommended Pulling Tension:	960.811 N
Min. Bend Radius/Minor Axis:	69.850 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
NEC Articles:	800
CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes

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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		
UL Flame Test:	NFPA 262	
CSA Flame Test:	FT6	
Suitability		
Suitability - Indoor:	Yes	
Suitability - Outdoor:	Yes	
Plenum/Non-Plenum		
Plenum (Y/N):	Yes	

Electrical Characteristics (Overall)

Nom. Inductance:

Inductance (µH/m) 0.459

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 108.273

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 196.86

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 19.0298

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 8.8587

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Description	Current
10C Temperature Rise	3.8 Amps per conductor @ 25°C ambient

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83659 002100	100 FT	9.600 LB	RED		9#18 FEP SH FEP
83659 0021000	1,000 FT	86.000 LB	RED	С	9#18 FEP SH FEP
83659 002500	500 FT	44.000 LB	RED	С	9#18 FEP SH FEP
83659 0025000	5,000 FT	420.000 LB	RED	CZ	9#18 FEP SH FEP

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Revision Number: 3 Revision Date: 08-05-2013

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