

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®	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	0.381

#### 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
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
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## 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
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## METRIC MEASUREMENT VERSION

### 83659 Multi-Conductor - Audio, Control and Instrumentation Cable

83659 002100	100 FT	9.600 LB	RED		9#18 FEP SH FEP
83659 0021000	1,000 FT	86.000 LB	RED	C	9#18 FEP SH FEP
83659 002500	500 FT	44.000 LB	RED	C	9#18 FEP SH FEP
83659 0025000	5,000 FT	420.000 LB	RED	C Z	9#18 FEP SH FEP

**Notes:**

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.

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