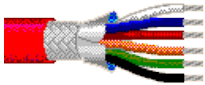


## 83509 Multi-Conductor - Audio, Control and Instrumentation Cable



For more Information  
please call

1-800-Belden1



### General Description:

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

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
9	24	7x32	TC - Tinned Copper

Total Number of Conductors: 9

#### 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
4	Green
5	Orange
6	Blue
7	White/Black
8	Red/Black
9	Green/Black

Overall Nominal Diameter: 4.775 mm

### Mechanical Characteristics (Overall)

Operating Temperature Range: -70°C To +200°C

Bulk Cable Weight: 50.599 Kg/Km

Max. Recommended Pulling Tension: 244.651 N

Min. Bend Radius/Minor Axis: 50.800 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

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

## METRIC MEASUREMENT VERSION

### 83509 Multi-Conductor - Audio, Control and Instrumentation Cable

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

#### Plenum/Non-Plenum

Plenum (Y/N):	Yes
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#### 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)  
16.405

##### Max. Operating Voltage - UL:

Voltage  
300 V RMS

##### Max. Recommended Current:

Current  
1.4 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
83509 002100	100 FT	5.300 LB	RED	C	9 #24 FEP SHLD FEP
83509 0021000	1,000 FT	38.000 LB	RED	C	9 #24 FEP SHLD FEP
83509 002500	500 FT	18.500 LB	RED	C	9 #24 FEP SHLD FEP

Notes:  
C = CRATE REEL PUT-UP.

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