# **Detailed Specifications & Technical Data**

### METRIC MEASUREMENT VERSION





## 83504 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.

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## **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

#	Conductors	AWG	Stranding	<b>Conductor Material</b>
4		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:**

La	Layer # Outer Shield Trade Name Ty		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 Lay Length & Direction:



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

Number	Color
1	Black
2	White
3	Red
4	Green

Overall Nominal Diameter: 3.658 mm

## **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-70°C To +200°C
Bulk Cable Weight:	29.764 Kg/Km
Max. Recommended Pulling Tension:	106.757 N
Min. Bend Radius/Minor Axis:	38.100 mm

## **Applicable Specifications and Agency Compliance (Overall)**

**Applicable Standards & Environmental Programs** 

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## 83504 Multi-Conductor - Audio, Control and Instrumentation Cable

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		
UL Flame Test:	NFPA 262	
CSA Flame Test:	FT6	
Plenum/Non-Plenum		
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
1.6 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
83504 002100	100 FT	3.500 LB	RED	С	4#24 FEP SH FEP
83504 0021000	1,000 FT	22.000 LB	RED	С	4#24 FEP SH FEP
83504 002500	500 FT	11.500 LB	RED	С	4#24 FEP SH FEP

Notes:

C = CRATE REEL PUT-UP.

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### 83504 Multi-Conductor - Audio, Control and Instrumentation Cable

Revision Number: 2 Revision Date: 08-21-2012

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