# **Detailed Specifications & Technical Data**

## METRIC MEASUREMENT VERSION





# 9993 Multi-Conductor - Audio, Control and Instrumentation Cable

For more Information please call

1-800-Belden1



# **General Description:**

24 AWG stranded (7x32) TC conductors, polyethylene insulation, twisted pairs, individually shielded w/Beldfoil® (100% coverage), 24 AWG stranded TC drain wire, PVC jacket.

24

# **Physical Characteristics (Overall)**

### Conductor

#### AWG:

# Pairs	AWG	Stranding	<b>Conductor Material</b>
12	24	7x32	TC - Tinned Copper

Total Number of Conductors:

### Insulation

### **Insulation Material:**

Insulation Material	Wall Thickness (mm)
PE - Polyethylene	0.279

### **Inner Shield**

### Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil® (Z-Fold®)	Tape	Aluminum Foil-Polyester Tape	100

### Inner Shield Drain Wire AWG:



Inner Shield Drain Wire Stranding: Stranded

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

### **Outer Jacket**

#### **Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (mm)			
PVC - Polyvinyl Chloride	0.889			

## **Overall Cable**

Overall Nominal Diameter: 10.871 mm

#### Pair

## Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue
5	Black & Yellow
6	Black & Brown
7	Black & Orange
8	Red & White
9	Red & Green
10	Red & Blue
11	Red & Yellow
12	Red & Brown

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# 9993 Multi-Conductor - Audio, Control and Instrumentation Cable

Machanias I Obanas tanistics (Occupil)				
Mechanical Characteristics (Overall)				
Operating Temperature Range:	-20°C To +80°C			
UL Temperature Rating:	80°C (UL AWM Style 2919)			
Bulk Cable Weight:	145.844 Kg/Km			
Min. Bend Radius/Minor Axis:	114.300 mm			
Applicable Specifications and Agency Co	ompliance (Overall)			
Applicable Standards & Environmental Prog	rams			
NEC/(UL) Specification:	CM			
CEC/C(UL) Specification:	CM			
AWM Specification:	UL Style 2919 (30 V 80°C)			
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):	01/01/2004			
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:	UL1685 UL Loading			

No

# **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm) 60

Plenum/Non-Plenum Plenum (Y/N):

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 82.025

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 154.207

Nominal Velocity of Propagation:

**VP (%)** 66

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 78.744

Ind. Pair Nominal Shield DC Resistance @ 20 59.058 Ohm/km Deg. C:

Max. Operating Voltage - UL:

Voltage	Description		
30 V RMS	UL AWM Style 2919		
300 V RMS	CM		

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#### Max. Recommended Current:

Current

1.1 Amps per conductor @ 25°C (10°C rise in temp)

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9993 060100	100 FT	11.500 LB	CHROME	С	12 FS PR #24 PE PVC
9993 0601000	1,000 FT	107.000 LB	CHROME	С	12 FS PR #24 PE PVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 10-05-2012

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