# **Detailed Specifications & Technical Data**

### **METRIC MEASUREMENT VERSION**



# 9451 Multi-Conductor - Single-Pair Cables

For more Information please call

1-800-Belden1



# **Description:**

22 AWG stranded (7x30) TC conductors, polypropylene insulation, twisted pair, overall Beldfoil shield (100% coverage), 22 AWG stranded TC drain wire, PVC jacket.

# **Physical Characteristics (Overall)**

### Conductor

#### AWG:

# Pairs	AWG	Stranding	Conductor Material
1	22	7x30	TC - Tinned Copper

#### Insulation

### Insulation Material:

Insulation Material	Wall Thickness (mm)
PP - Polypropylene	0.2032

### **Outer Shield**

### **Outer Shield Material:**

Outer Shield Trade Name	Туре	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

#### **Outer Shield Drain Wire AWG:**

AWG	Stranding	<b>Drain Wire Conductor Material</b>
22	7x30	TC - Tinned Copper

## **Outer Jacket**

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

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	0.508

### **Overall Cabling**

Overall Nominal Diameter: 3.429 mm

## **Pair**

#### **Pair Color Code Chart:**



## Pair Lay Length & Direction:

Lay Length (mm)	Twists/ft. (twist/m)		
44.449825	22.508		

Mechanical	Characteristics	(Overall)

Operating Temperature Range:	-20°C To +75°C		
UL Temperature Rating:	60°C		
Bulk Cable Weight:	20.240 Kg/Km		
Max. Recommended Pulling Tension:	120.101 N		
Min. Bend Radius (Install)/Minor Axis:	35.560 mm		

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Applicable Specifications and Agency Compliance (Overall)				
Applicable Standards & Environmental Programs				
NEC/(UL) Specification:	CMR			
CEC/C(UL) Specification:	CMG			
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:	UL1666 Vertical Shaft			
CSA Flame Test:	FT4			
Plenum/Non-Plenum				
Plenum (Y/N):	No			

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm)
45

Nom. Inductance:

Inductance (µH/m) 0.55777

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 114.835

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m) 219.827

Nominal Velocity of Propagation:

**VP (%)** 66

Nominal Delay:

**Delay (ns/m)** 4.9215

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 46.2621

**Nominal Outer Shield DC Resistance:** 

DCR @ 20°C (Ohm/km) 46.9183

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current

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2.9 Amps per conductor @ 25°C

### **Notes (Overall)**

Notes: The jacket and shield are bonded so both can be removed on automatic stripping equipment. Drain wire is inside foil shield. For cross-connect use with 1814R (et. al.) Snake Cables.

#### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
MD1808 010U1000	305 MT	7.258 KG	BLACK		2 #22 PP FS PVC FR
9451 N3UU1000	305 MT	7.258 KG	GREEN, MIL		2 #22 PP FS PVC FR
9451 N3U5000	1,524 MT	31.752 KG	GREEN, MIL	CN	2 #22 PP FS PVC FR
9451 001U1000	305 MT	7.258 KG	BROWN		2 #22 PP FS PVC FR
9451 0015000	1,524 MT	31.752 KG	BROWN	CN	2 #22 PP FS PVC FR
9451 002U1000	305 MT	7.258 KG	RED		2 #22 PP FS PVC FR
9451 0025000	1,524 MT	34.020 KG	RED	CN	2 #22 PP FS PVC FR
9451 003U1000	305 MT	7.258 KG	ORANGE		2 #22 PP FS PVC FR
9451 0035000	1,524 MT	34.020 KG	ORANGE	CN	2 #22 PP FS PVC FR
9451 004U1000	305 MT	7.258 KG	YELLOW		2 #22 PP FS PVC FR
9451 0045000	1,524 MT	34.020 KG	YELLOW	CN	2 #22 PP FS PVC FR
9451 006U1000	305 MT	7.258 KG	BLUE, LIGHT		2 #22 PP FS PVC FR
9451 0065000	1,524 MT	34.020 KG	BLUE, LIGHT	CN	2 #22 PP FS PVC FR
9451 007U1000	305 MT	7.258 KG	VIOLET		2 #22 PP FS PVC FR
9451 0075000	1,524 MT	34.020 KG	VIOLET	CN	2 #22 PP FS PVC FR
9451 008T1000	305 MT	7.258 KG	GRAY		2 #22 PP FS PVC FR
9451 008U1000	305 MT	7.258 KG	GRAY		2 #22 PP FS PVC FR
9451 008U500	152 MT	3.856 KG	GRAY		2 #22 PP FS PVC FR
9451 008500	152 MT	3.629 KG	GRAY		2 #22 PP FS PVC FR
9451 0085000	1,524 MT	34.020 KG	GRAY	CN	2 #22 PP FS PVC FR
9451 009U1000	305 MT	7.258 KG	WHITE		2 #22 PP FS PVC FR
9451 0095000	1,524 MT	34.020 KG	WHITE	CN	2 #22 PP FS PVC FR
9451 010U1000	305 MT	7.258 KG	BLACK		2 #22 PP FS PVC FR
9451 0105000	1,524 MT	34.020 KG	BLACK	CN	2 #22 PP FS PVC FR

#### Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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