

## 8451 Multi-Conductor - Single-Pair Cable



For more Information  
please call

1-800-Belden1



### Description:

22 AWG stranded (7x30) TC conductors, polypropylene insulation, paper wrap, 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 (in.)
PP - Polypropylene	.008

#### Outer Shield

Outer Shield Material:

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

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire	Conductor Material
22	7x30		TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.020

#### Overall Cabling

Overall Nominal Diameter: 0.138 in.

#### Pair

Pair Color Code Chart:

Number	Color
1	Black & Red

Pair Lay Length & Direction:

Lay Length (in.)	Twists/ft. (twist/ft)
1.750	6.860

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
Bulk Cable Weight:	14.100 lbs/1000 ft.
Max. Recommended Pulling Tension:	27 lbs.
Min. Bend Radius (Install)/Minor Axis:	1.400 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

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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 Riser
CSA Flame Test:	FT4

**Plenum/Non-Plenum**

Plenum (Y/N):	No
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**Electrical Characteristics (Overall)****Nom. Characteristic Impedance:**

Impedance (Ohm)

45

**Nom. Inductance:**Inductance ( $\mu$ H/ft)

.17

**Nom. Capacitance Conductor to Conductor:**

Capacitance (pF/ft)

34

**Nom. Capacitance Cond. to Other Conductor & Shield:**

Capacitance (pF/ft)

67

**Nominal Velocity of Propagation:**

VP (%)

66

**Nominal Delay:**

Delay (ns/ft)

1.5

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

14.5

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

14.1

**Max. Operating Voltage - UL:**

Voltage

300 V RMS

**Max. Recommended Current:**

Current

2.9 Amps per conductor @ 25°C

**Notes (Overall)**

**Notes:** Unique paper separator facilitates jacket stripping.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8451 008U1000	1,000 FT	16.000 LB	GRAY		2 #22 PP SHLD PVC FR
8451 008U500	500 FT	8.500 LB	GRAY		2 #22 PP SHLD PVC FR
8451 0081000	1,000 FT	16.000 LB	GRAY	C	2 #22 PP SHLD PVC FR
8451 008500	500 FT	8.000 LB	GRAY		2 #22 PP SHLD PVC FR
8451 010U1000	1,000 FT	16.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010U500	500 FT	8.500 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010100	100 FT	2.200 LB	BLACK		2 #22 PP SHLD PVC FR
8451 0101000	1,000 FT	16.000 LB	BLACK	C	2 #22 PP SHLD PVC FR
8451 010500	500 FT	8.000 LB	BLACK		2 #22 PP SHLD PVC FR

**Notes:**

C = CRATE REEL PUT-UP.

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