

## 8451 Multi-Conductor - Single-Pair Cable

For more Information  
please call

1-800-Belden1



### General 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

Total Number of Conductors: 2

#### 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
PVC - Polyvinyl Chloride

#### Overall Cable

Overall Nominal Diameter: 0.138 in.

#### Pair

##### Pair Color Code Chart:

Number	Color
1	Black & Red

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 15 lbs/1000 ft.

Max. Recommended Pulling Tension: 27 lbs.

Min. Bend Radius/Minor Axis: 1.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

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:	UL1666 Vertical Shaft
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 01010000	10,000 FT	160.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 01015000	15,000 FT	240.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 010500	500 FT	8.000 LB	BLACK		2 #22 PP SHLD PVC FR
8451 0105000	5,000 FT	80.000 LB	BLACK		2 #22 PP SHLD PVC FR

**Notes:**

C = CRATE REEL PUT-UP.

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