

## 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 (mm)
PP - Polypropylene	0.2032

**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:

3.505 mm

**Pair**

Pair Color Code Chart:

Number	Color
1	Black & Red

**Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +75°C
Bulk Cable Weight:	22.323 Kg/Km
Max. Recommended Pulling Tension:	120.101 N
Min. Bend Radius/Minor Axis:	38.100 mm

**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

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CA Prop 65 (CJ for Wire & Cable):	Yes
MIL Order #39 (China RoHS):	Yes
<b>Flame Test</b>	
UL Flame Test:	UL1666 Vertical Shaft
CSA Flame Test:	FT4
<b>Plenum/Non-Plenum</b>	
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)	111.554
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)	47.5745
Nominal Outer Shield DC Resistance:	
DCR @ 20°C (Ohm/km)	46.2621
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.

### 8451 Multi-Conductor - Single-Pair Cable

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