

## Detailed Specifications & Technical Data



**BELDEN**Cable™

### 8451 Paired - Audio, Control and Instrumentation Cable



For more information please  
call

**1-800-Belden1**

See Put-ups and Colors

#### Description:

22 AWG stranded (7x30) tinned copper conductors, twisted pair, polypropylene insulation, overall 100% Beldfoil® shield, 22 AWG stranded tinned copper drain wire, paper wrap, PVC jacket.

#### PHYSICAL CHARACTERISTICS:

##### CONDUCTOR:

Number of Pairs	1
Total Number of Conductors	2
AWG	22
Stranding	7x30
Conductor Material	TC - Tinned Copper

##### INSULATION:

Insulation Material	PP - Polypropylene
Nom. Insulation Wall Thickness	.008 in.
Lay Length	1.75 in.
Twists/ft.	6.86

Pair Color Code Chart :

Number	Color
1	Black & Red

##### OUTER SHIELD:

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

##### OUTER SHIELD DRAIN WIRE :

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

##### OUTER JACKET:

Outer Jacket Material	PVC - Polyvinyl Chloride
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Outer Jacket Nominal Wall Thickness	.020 in.
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#### OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter	.138 in.
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#### MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	14.1 lbs/1000 ft.
Max. Recommended Pulling Tension	27 lbs.
Min. Bend Radius (Install)	1.4 in.

#### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

NEC/(UL) Specification	CMR
CEC/C(UL) Specification	CMG

#### FLAME TEST:

UL Flame Test	UL1666 Riser
CSA Flame Test	FT4

#### PLENUM/NON-PLENUM:

Plenum (Y/N)	N
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#### ELECTRICAL CHARACTERISTICS:

Nom. Characteristic Impedance	45 Ohms
Nom. Inductance	.17 µH/ft
Nom. Capacitance Conductor to Conductor @ 1 KHz	34 pF/ft
Nom. Cap. Cond. to Other Cond. & Shield @ 1 KHz	67 pF/ft
Nominal Velocity of Propagation	66 %
Nominal Delay	1.5 ns/ft
Nom. Conductor DC Resistance @ 20 Deg. C	14.5 Ohms/1000 ft
Nominal Outer Shield DC Resistance @ 20 Deg. C	14.1 Ohms/1000 ft
Max. Operating Voltage - UL	300 V RMS
Max. Recommended Current	2.9 Amps per conductor @ 25°C

#### NOTES:

Notes	Unique paper separator facilitates jacket stripping.
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#### PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
8451 0081000	2 #22 PP SHLD PVC FR	1000	16	GRAY	C
8451 008500	2 #22 PP SHLD PVC FR	500	8	GRAY	

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8451 008U1000	2 #22 PP SHLD PVC FR	U1000	16	GRAY	
8451 008U500	2 #22 PP SHLD PVC FR	U500	8.5	GRAY	
8451 010100	2 #22 PP SHLD PVC FR	100	2.3	BLACK	
8451 0101000	2 #22 PP SHLD PVC FR	1000	16	BLACK	C
8451 010500	2 #22 PP SHLD PVC FR	500	8	BLACK	
8451 010U1000	2 #22 PP SHLD PVC FR	U1000	16	BLACK	
8451 010U500	2 #22 PP SHLD PVC FR	U500	8.5	BLACK	

C = CRATE REEL PUT-UP.

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