

## 9451SB Multi-Conductor - Audio, Control and Instrumentation Shipboard Cable



For more Information  
please call

1-800-Belden1



### General Description:

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

### Usage (Overall)

**Suitable Applications:** Audio, Control, or Instrumentation for Marine Shipboard and Offshore use

### 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®	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 (mm)
LSZH - Low Smoke Zero Halogen	0.8128

#### Overall Cable

**Overall Nominal Diameter:** 4.064 mm

#### Pair

**Pair Color Code Chart:**

Number	Color
1	Black & Red

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -30°C To +105°C

**UL Temperature Rating:** 105°C

**Bulk Cable Weight:** 26.788 Kg/Km

**Max. Recommended Pulling Tension:** 120.101 N

**Min. Bend Radius/Minor Axis:** 44.450 mm

## 9451SB Multi-Conductor - Audio, Control and Instrumentation Shipboard Cable

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMG-LS
CEC/C(UL) Specification:	CMG-LS
EU Directive 2011/65/EU (ROHS II):	Yes
IEEE Specification:	Std. 45 clause 23
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):	08/01/2005
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
Other Specification:	UL444, ABS Type Approval Certificate 05-HS500072B

#### Flame Test

UL Flame Test:	UL1685 FT4 Loading, Limited Smoke
CSA Flame Test:	FT4
IEC Flame Test:	60332-1, 60332-3-22 (Category A)
IEEE Flame Test:	1202

#### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Sunlight Resistance:	Yes

#### Plenum/Non-Plenum

Plenum (Y/N):	No
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### 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

METRIC MEASUREMENT VERSION

## 9451SB Multi-Conductor - Audio, Control and Instrumentation Shipboard Cable

### 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
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.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9451SB 0101000	305 MT	9.072 KG	BLACK	C	2 #22 PP FS FRNHPO

### Notes:

C = CRATE REEL PUT-UP.

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