

## 7949A Composite - Composite Data, Audio, Video, Security and Control Cable

For more Information  
please call

1-800-Belden1



### General Description:

Composite - (1) Cat 5e 4-bonded-pair UTP 24 AWG, (4)16 AWG stranded (65x34) bare copper conductors, polyolefin insulation (pairs), PVC insulation (conductors), overall F-R PVC jacket. Jacket sequentially marked.

### Usage (Overall)

**Suitable Applications:**

Keypads, Control Panels, Touch Panel Controls, Home Theater, A/V Equipment, Projectors, Screens, Window Treatments, Lighting, Security, Security Cameras, Home Automation, Energy Control

### Twisted Pair

#### Physical Characteristics

##### Conductor

**AWG:**

# Pairs	AWG	Stranding	Conductor Material	Dia. (mm)
4	24	Solid	BC - Bare Copper	0.508

##### Insulation

**Insulation Material:**

Insulation Material	Dia. (mm)
PO - Polyolefin	0.965

**Twisted Pair Color Code Chart:**

Number	Color
1	White/Blue Stripe and Blue
2	White/Orange Stripe and Orange
3	White/Green Stripe and Green
4	White/Brown Stripe and Brown

##### Outer Jacket

**Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

**Outer Jacket Diameter:**

Nom. Dia. (mm)
5.080

**Outer Jacket Ripcord:**

Yes

**Outer Jacket Color Code Chart:**

Color
Blue

#### Electrical Characteristics

**Premise Cable Electrical Table 1:**

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1.0	2.000	62.3	60	20.000
4.0	4.100	53.3	49	23.000
8.0	5.800	48.8	43	24.500
10.0	6.500	47.3	41	25.000
16.0	8.200	44.3	36	25.000

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20.0	9.300	42.8	34	25.000
25.0	10.400	41.3	31	24.300
31.25	11.700	39.9	28	23.600
62.5	17.000	35.4	19	21.500
100	22.000	32.3	11	20.100

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Min. PSELFEXT (dB)
1.0	100 ± 15	60.8
4.0	100 ± 15	48.7
8.0	100 ± 15	42.7
10.0	100 ± 15	40.8
16.0	100 ± 15	36.7
20.0	100 ± 15	34.7
25.0	100 ± 15	32.8
31.25	100 ± 15	30.9
62.5	100 ± 15	24.8
100	100 ± 15	20.8

### Multi Conductor

#### Physical Characteristics

##### Conductor

###### AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
4	16	65x34	BC - Bare Copper	1.499

##### Insulation

###### Insulation Material:

Insulation Material	Dia. (mm)
PVC - Polyvinyl Chloride	2.007

###### Insulation Color Code Chart:

Number	Color
1	Red
2	White
3	Green
4	Black

#### Electrical Characteristics

##### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
49.215

##### Nominal Velocity of Propagation:

VP (%)
70.000

##### Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
9.380

##### Max. Operating Voltage - UL:

Voltage
300 V RMS

##### Max. Recommended Current:

Current
5 Amps per conductor @ 25°C

##### Other Electrical Characteristic 1:

Third party verified to TIA/EIA-568/B.2, Category 5e

## 7949A Composite - Composite Data, Audio, Video, Security and Control Cable

## Physical Characteristics (Overall)

## Conductor

## Outer Shield

Outer Shield Material:

Outer Shield Material

Unshielded

## Outer Jacket

Outer Jacket Material:

Outer Jacket Material

PVC - Polyvinyl Chloride

Outer Jacket Ripcord: Yes

## Overall Cable

Overall Nominal Diameter: 9.017 mm

## Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 132.450 Kg/Km

Max. Recommended Pulling Tension: 711.712 N

Min. Bend Radius/Minor Axis: 114.300 mm

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; 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): 04/01/2005

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire &amp; Cable): Yes

MII Order #39 (China RoHS): Yes

Other Specification: NEMA WC-63.1, Category 5e

## Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

## Plenum/Non-Plenum

Plenum (Y/N): No

## Electrical Characteristics (Overall)

Max. Operating Voltage - UL:

Voltage

300 V RMS

## Notes (Overall)

Notes: Overall jacket sequentially marked.

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### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7949A N3U1000	1,000 FT	99.000 LB	GREEN, MIL	C	COMPOSITE CABLE PVC
7949A N3U500	500 FT	55.000 LB	GREEN, MIL	C	COMPOSITE CABLE PVC

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 0    Revision Date: 08-05-2013

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