Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7818A Composite - SMPTE 311M HDTV Cable



For more Information please call

1-800-Belden1



General Description:

Harsh Environment SMPTE 311M Cable, 4 power conductors, SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PO insulation, TC braid shield (84% coverage), Polyurethane jacket.

Usage (Overall)

Suitable Applications:

SMPTE 311M Camera Cable

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
2	24	7x32	TC - Tinned Copper	0.610
4	20	19x32	TC - Tinned Copper	0.940

Insulation

Insulation Material:

Insulation Material	Dia. (mm)	AWG
PO - Polyolefin	1.575	20
PO - Polyolefin	1.219	24

Insulation Color Code Chart:

Number	Color	Description
1	Red	24 AWG
2	Gray	24 AWG
3	White	20 AWG
4	White	20 AWG
5	Black	20 AWG
6	Black	20 AWG

Individual Shield

Electrical Characteristics

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/km)
24 AWG	76.447
20 AWG	28.873

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

Fiber

Physical Characteristics

Fiber Type:	Non-Dispersion Shifted, Single Mode/125/900 Micron		
Number of Fibers:	2		
Mode Field Diameter @ 1310nm:	9.5 +/-1 microns		
Clad Diameter:	125 microns		
Core-clad Concentricity Error:	< to 1 micron		
Primary Coating Material:	Acrylate		
Buffer Tube Diameter:	900 microns		
Buffer Tube Material:	PVC - Polyvinyl Chloride		

Buffer Tube Color Code Chart:

Number	Color
1	Blue
2	Yellow

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Optical Characteristics

Maximum Attenuation @ 1310nm: 0.8 dB/km

Physical Characteristics (Overall)

Conductor

Outer Shield

Outer Shield Material:

Type Outer Shield Material Coverage (%)Braid | TC - Tinned Copper | 85.000

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PU - Polyurethane

Strength Member

Overall Strength Member Diameter:

Strength Member Material: 302 Stainless Steel

.085

Overall Cable

Overall Nominal Diameter: 9.068 mm

Mechanical Characteristics (Overall)

 Operating Temperature Range:
 -40°C To +75°C

 Bulk Cable Weight:
 102.686 Kg/Km

 Max. Recommended Pulling Tension:
 2001.690 N

 Min. Bend Radius/Minor Axis:
 63.500 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): EU Directive 2000/53/EC (ELV):

EU Directive 2002/95/EC (RoHS):	Yes
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:	SMPTE 311

Yes

Suitability

enum/Non-Plenum	
Suggested Connectors:	SMPTE 304M Connectors
Sunlight Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Indoor:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No	
Plenum Number:	7804P	
Non-Plenum Number:	7804C, 7804R, 7804WB	

Electrical Characteristics (Overall)

Other Electrical Characteristic 1: Auxillary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/1000ft.) Min. Insullation Resistance - 10, 000 Megaohms x km Dielectric Strength - 1750 V RMS. Signal Conductors: DC Loop

Resistance - 150 Ohms/km nom. (45.7 Ohms/1000 ft.) Insulation Resistance - 10, 000 Megaohms/1000 ft. Dielectric Strength: 1750 V RMS

Notes (Overall)

Notes: Bend Radius is based upon (FOTP-37) @ 20°C. Plenum version and other conductor counts/diameters available by special order.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7818A 0101000	1,000 FT	77.000 LB	BLACK	С	COMPOSITE-SMPTE311M HDTV CABLE
7818A 0103280	3,280 FT	242.720 LB	BLACK		COMPOSITE-SMPTE311M HDTV CABLE

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Notes: C = CRATE REEL PUT-UP.

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