Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7817A Composite - SMPTE 311M HDTV Cable

For more Information please call

1-800-Belden1



General Description:

12mm Double Jacketed SMPTE 311M Studio Cable, 4 power conductors, SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PO insulation, TC braid shield (84% coverage), Belflex® jacket.

Usage (Overall)

Suitable Applications:

SMPTE 311M Camera Cable

Twisted Pair

Physical Characteristics

Individual Shield

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
2	24	7x32	TC - Tinned Copper	0.024
4	20	19x32	TC - Tinned Copper	0.037

Insulation

Insulation Material:

ı	Insulation Material	Dia. (in.)	AWG
ı	PO - Polyolefin	0.062	20
ı	PO - Polyolefin	0.048	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/1000 ft)		
24 AWG	23.300		
20 AWG	8.800		

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 3.500

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

Page 1 of 3 11-05-2015

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7817A Composite - SMPTE 311M HDTV Cable

1	Blue
2	Yellow

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

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name Outer Jacket Material Belflex® PVC Blend - Polyvinyl Chloride Blend

Strength Member

Overall Strength Member Diameter: .085

Strength Member Material: 302 Stainless Steel

Overall Cable

Overall Nominal Diameter: 0.472 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C **Bulk Cable Weight:** 108 lbs/1000 ft. Max. Recommended Pulling Tension: 450 lbs Min. Bend Radius/Minor Axis: 3.250 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Rating: UL AWM Style 20907 (300V 60°C) EU Directive 2011/65/EU (ROHS II): Yes EU Directive 2000/53/EC (ELV): Yes EU Directive 2002/95/EC (RoHS): EU Directive 2002/96/EC (WEEE): Yes EU Directive 2003/11/EC (BFR): Yes CA Prop 65 (CJ for Wire & Cable): MII Order #39 (China RoHS): SMPTE 311 Other Specification: Flame Test

UL Flame Test: VW-1

Suitability

Suitability - Indoor: Yes Suitability - Outdoor: Yes Sunlight Resistance: Suggested Connectors: SMPTE 304M Connectors

Plenum/Non-Plenum

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

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)

Page 2 of 3 11-05-2015

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7817A Composite - SMPTE 311M HDTV Cable

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
7817A 0101000	1,000 FT	119.000 LB	BLACK		COMPOSITE-SMPTE311M HDTV CABLE

Revision Number: 0 Revision Date: 03-27-2015

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Page 3 of 3 11-05-2015