Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7804R Composite - SMPTE 311M HDTV Cable



For more Information please call

1-800-Belden1



General Description:

Industry Standard SMPTE 311M Cable, 4 power conductors, 2 SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PVC insulation, TC braid shield (95% coverage), Belflex® jacket.

Usage (Overall)

Suitable Applications:

SMPTE 311M Camera Cable

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:

Insulation Material	Dia. (in.)	AWG
PVC - Polyvinyl Chloride	0.063	20
PVC - Polyvinyl Chloride	0.050	24

Insulation Color Code Chart:

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

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
1	Blue
2	Yellow

Optical Characteristics

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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 | 95.000 **Outer Jacket Outer Jacket Material:** Outer Jacket Trade Name Outer Jacket Material Belflex® PVC Blend - Polyvinyl Chloride Blend **Strength Member Overall Strength Member Diameter:** .089 Strength Member Material: 302 Stainless Steel **Overall Cable Overall Nominal Diameter:** 0.362 in **Mechanical Characteristics (Overall) Operating Temperature Range:** -40°C To +75°C **Bulk Cable Weight:** 80 lbs/1000 ft. Max. Recommended Pulling Tension: 450 lbs. Min. Bend Radius/Minor Axis: 2.500 in. Flex Cycle Rating: UL1581, Sec. 1582: 15,000 Cycles @ 3.6 Crush Resistance: Compression, FOTP-41: 397 lbs. Impact Resistance: FOTP-25: 20 Cycles @ 1.32 lbs. Applicable Specifications and Agency Compliance (Overall) **Applicable Standards & Environmental Programs** NEC/(UL) Specification: CMR CEC/C(UL) Specification: CMG EU Directive 2011/65/EU (ROHS II): Yes EU Directive 2000/53/EC (ELV): EU Directive 2002/95/EC (RoHS): Yes EU RoHS Compliance Date (mm/dd/yyyy): 07/01/2005 EU Directive 2002/96/EC (WEEE): EU Directive 2003/11/EC (BFR): Yes CA Prop 65 (CJ for Wire & Cable): Yes MII Order #39 (China RoHS): Other Specification: SMPTE 311 Flame Test **UL Flame Test:** UL1666 Vertical Shaft **CSA Flame Test:** FT4 **IEEE Flame Test:** 1202 Suitability Suitability - Indoor: Yes Suitability - Outdoor: Suggested Connectors: SMPTE 304M Connectors Plenum/Non-Plenum Plenum (Y/N): 7804P Plenum Number: **Electrical Characteristics (Overall)**

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Other Electrical Characteristic 1:

Auxillary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/1000tt.) 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
7804R B591000	1,000 FT	96.000 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B591640	1,640 FT	152.520 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B593280	3,280 FT	314.880 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B59500	500 FT	47.500 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE

Notes:

C = CRATE REEL PUT-UP.

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