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
4	Black	20 AWG
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:	U.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 (O	verall)
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):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	07/01/2005
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:	SMPTE 311
Flame Test	
UL Flame Test:	UL1666 Vertical Shaft
CSA Flame Test:	FT4
IEEE Flame Test:	1202
Suitability	v
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suggested Connectors:	SMPTE 304M Connectors
Plenum/Non-Plenum Plenum (Y/N):	No
Plenum Number:	7804P
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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