Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7804P Composite - SMPTE 311M HDTV Cable

For more Information please call

1-800-Belden1



General Description:

Industry Standard SMPTE 311M Cable, 4 power conductors, SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PVC insulation, TC braid shield (80% coverage), Flamarrest® jacket.

Usage (Overall)

Suitable Applications:

Camera Cable compliant with SMPTE 311M

Twisted Pair

Physical Characteristics Individual Shield

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
FEP	1.372	20
FEP	0.965	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

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 (O	hm/km)
11.484	

Fiber

Physical Characteristics

Fiber Type:	Single Mode/125/900 Micron
Number of Fibers:	2

Mode Field Diameter @ 1310nm: 9.5 +/-1 microns

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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

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	80.000

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	PVC

Strength Member

Overall Strength Me	mber Diameter: .07	79
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Strength Member Material: 302 Stainless Steel

Overall Cable

Overall Nominal Diameter: 6.579 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +75°C
Bulk Cable Weight:	92.268 Kg/Km
Max. Recommended Pulling Tension:	2001.690 N
Min. Bend Radius/Minor Axis:	63.500 mm
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:	CMP
CEC/C(UL) Specification:	CMP
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):	09/23/2011
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes

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CA Prop 65 (CJ for Wire & Cable):	Yes			
MII Order #39 (China RoHS):	Yes			
Other Specification:	SMPTE 311			
Flame Test				
UL Flame Test:	UL910 Steiner Tunnel			
CSA Flame Test:	FT6			
Suitability				
Suitability - Indoor:	Yes			
Suggested Connectors:	SMPTE 304M Connectors			
Plenum/Non-Plenum				
Plenum (Y/N):	Yes			
Non-Plenum Number:	7804C, 7804R			

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. Other conductor counts/diameters available by special order.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7804P 0043280	3,280 FT	203.360 LB	YELLOW		COMPOSITE CAMERA CABLE PVC
7804P 010CUT	1 FT	0.065 LB	BLACK		COMPOSITE CAMERA CABLE PVC
7804P 0101000	1,000 FT	63.000 LB	BLACK		COMPOSITE CAMERA CABLE PVC
7804P 0101640	1,640 FT	101.680 LB	BLACK		COMPOSITE CAMERA CABLE PVC
7804P 0103280	3,280 FT	203.360 LB	BLACK		COMPOSITE CAMERA CABLE PVC
7804P 010500	500 FT	33.000 LB	BLACK		COMPOSITE CAMERA CABLE PVC
7804P 0105000	5,000 FT	325.000 LB	BLACK		COMPOSITE CAMERA CABLE PVC

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