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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), PVC 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
PVC - Polyvinyl Chloride	1.600	20
PVC - Polyvinyl Chloride	1.270	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 (Ohm/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

**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:	0.5 dB/km
Maximum Attenuation @ 1550nm:	0.5 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:	9.195 mm
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**Mechanical Characteristics (Overall)**

Operating Temperature Range:	-40°C To +75°C
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:	CMR
CEC/C(UL) Specification:	CMG
UL Rating:	CMR-OF
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

**Suitability - Indoor:** Yes

**Suitability - Outdoor:** Yes

**Suggested Connectors:** SMPTE 304M Connectors

### Plenum/Non-Plenum

**Plenum (Y/N):** No

**Plenum Number:** 7804P

### Electrical Characteristics (Overall)

**Other Electrical Characteristic 1:** Auxillary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/1000ft.) Min. Insulation Resistance - 10, 000 Megohms 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 Megohms/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 B59CUT	1 FT	0.098 LB	BLACK, MATTE		COMPOSITE CAMERA CABLE
7804R B591000	1,000 FT	96.000 LB	BLACK, MATTE	C	COMPOSITE CAMERA CABLE
7804R B591640	1,640 FT	152.520 LB	BLACK, MATTE	C	COMPOSITE CAMERA CABLE
7804R B593280	3,280 FT	314.880 LB	BLACK, MATTE	C	COMPOSITE CAMERA CABLE
7804R B59500	500 FT	47.500 LB	BLACK, MATTE	C	COMPOSITE CAMERA CABLE

**Notes:**  
C = CRATE REEL PUT-UP.

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