

## 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), PVC 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

##### 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: 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

## 7804R Composite - SMPTE 311M HDTV Cable

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:	0.362 in.
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## Mechanical Characteristics (Overall)

Operating Temperature Range:	-40°C To +75°C
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 &amp; 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

## 7804R Composite - SMPTE 311M HDTV Cable

Other Specification:	SMPTE 311
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**Flame Test**

UL Flame Test:	UL1666 Vertical Shaft
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CSA Flame Test:	FT4
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IEEE Flame Test:	1202
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**Suitability**

Suitability - Indoor:	Yes
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Suitability - Outdoor:	Yes
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Suggested Connectors:	SMPTE 304M Connectors
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**Plenum/Non-Plenum**

Plenum (Y/N):	No
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Plenum Number:	7804P
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**Electrical Characteristics (Overall)**

Other Electrical Characteristic 1:	Auxiliary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/1000ft.) Min. Insulation 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
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**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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