# **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 (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

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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 Member Diameter: .079

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
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

SMPTE 304M Connectors

7804C, 7804R

**Electrical Characteristics (Overall)** 

Suggested Connectors:

Non-Plenum Number:

Plenum/Non-Plenum Plenum (Y/N):

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Other Electrical Characteristic 1:

Auxillary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/10U0tt.) 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 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

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