Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7818A Composite - SMPTE 311M HDTV Cable

For more Information please call

1-800-Belden1



General Description:

Harsh Environment SMPTE 311M Cable, 4 power conductors, SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PO insulation, TC braid shield (84% coverage), Polyurethane 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 |
|---------------------|-----------|-----|
| PO - Polyolefin | 1.575 | 20 |
| PO - Polyolefin | 1.219 | 24 |

Insulation Color Code Chart:

| Number | Color | Description |
|--------|-------|-------------|
| 1 | Red | 24 AWG |
| 2 | Gray | 24 AWG |
| 3 | White | 20 AWG |
| 4 | White | 20 AWG |
| 5 | Black | 20 AWG |
| 6 | Black | 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: | 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 | |

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 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

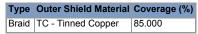
Maximum Attenuation @ 1310nm: 0.8 dB/km

Physical Characteristics (Overall)

Conductor

Outer Shield

Outer Shield Material:



Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PU - Polyurethane

Strength Member

Overall Strength Member Diameter: .085

Strength Member Material: 302 Stainless Steel

Overall Cable

Overall Nominal Diameter: 9.068 mm

Mechanical Characteristics (Overall)

 Operating Temperature Range:
 -40°C To +75°C

 Bulk Cable Weight:
 102.686 Kg/Km

 Max. Recommended Pulling Tension:
 2001.690 N

 Min. Bend Radius/Minor Axis:
 63.500 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | EU Directive 2011/65/EU (ROHS II): | Yes |
|----|------------------------------------|-----------|
| | EU Directive 2000/53/EC (ELV): | Yes |
| | EU Directive 2002/95/EC (RoHS): | Yes |
| | 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 |
| Su | itability | |
| | Suitability - Indoor: | Yes |
| | Suitability - Outdoor: | Yes |

SMPTE 304M Connectors

Plenum/Non-Plenum

Sunlight Resistance:
Suggested Connectors:

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| Plenum (Y/N): | No |
|--------------------|----------------------|
| Plenum Number: | 7804P |
| Non-Plenum Number: | 7804C, 7804R, 7804WB |

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. Plenum version and other conductor counts/diameters available by special order.

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|--------------------------------|
| 7818A 0101000 | 1,000 FT | 77.000 LB | BLACK | С | COMPOSITE-SMPTE311M HDTV CABLE |
| 7818A 0103280 | 3,280 FT | 242.720 LB | BLACK | | COMPOSITE-SMPTE311M HDTV CABLE |

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 0 Revision Date: 03-27-2015

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