These hybrid optical fibre cables are designed to meet the SMPTE311M standard for HD television cameras and used in studio and field applications.

- SMPTE311M compliant
- Heat resistant.
- Indoor and mobile use
- Available with special put-up for easy connectorization on the drum.
- Bend Insensitive Optical Fibers acc. to ITU G.657A
- Strength member for extra durability
- Black Brilliance® outer jacket is UV-resistant
- The halogenfree version complies with IEC 60332-1 Flame test and IEC 60754-2 Smoke Corrosivity (pH ≥ 3.5 – Conductivity ≤ 100 µS/cm).

**Construction & dimensions**

1. **Component A (4 Power Conductors)**
   - Conductor: AWG 20 (19x32) Tinned copper.
   - Insulation: HDPE
   - Nominal diameter: 1.57 mm
   - Colours: Black, White, Black/White and White/Black

2. **Component B (2 Signal Conductors)**
   - Conductor: AWG 24 (7x32) Tinned copper.
   - Insulation: HDPE
   - Nominal diameter: 1.22 mm
   - Colours: Red and Grey

3. **Component C (2 Tight buffered fibres)**
   - Insulation: Thermoplastic
   - Diameter: 0.9 ± 0.1 mm.
   - Colours: Blue and Yellow
4. **Central Strength Member:**
   - Up jacketed stranded steel member
   - Conductor: AWG 14 Stainless steel
   - Insulation: HDPE
   - Nominal diameter: 2.16 mm
   - Colours: Violet

5. **Cable Assembly:**
   - All of the above components cabled to make round

6. **Barrier:**
   - Non woven foil 25% overlap

7. **Shield:**
   - Overall tinned copper braid shield
   - 80 % min. coverage

8. **Jacket:**
   - Material: Polyurethane, FRNC/LSNH or PVC
   - Nom. wall: 1.50 mm
   - Nom. diameter: 9.2 mm.
   - Colours: Black

**Printlegend:**

- PVC version:
  “VIDEO BRILLIANCE(R) BY BELDEN-NL 7804E SMPTE311M COMPOSITE SINGLE MODE FIBER OPTIC CAMERA CABLE 2F9UM 2C24 4C20 SHIELDED PVC MMYY” + meter marking
  MM= month, YY=year

- FRNC/LSNH version:
  “VIDEO BRILLIANCE(R) BY BELDEN-NL 7804ENH SMPTE311M COMPOSITE SINGLE MODE FIBER OPTIC CAMERA CABLE 2F9UM 2C24 4C20 SHIELDED FRNC/LSNH IEC 60332-1 MMYY” + meter marking
  MM= month, YY=year

- PUR version:
  “VIDEO BRILLIANCE(R) BY BELDEN-NL 7804EPU SMPTE311M COMPOSITE SINGLE MODE FIBER OPTIC CAMERA CABLE 2F9UM 2C24 4C20 SHIELDED PUR MMYY” + meter marking
  MM= month, YY=year

**Optical, Electrical and Mechanical specifications**

- **Optical attenuation @ 1310 nm**
  - Tight
  - Average/max (dB/km)
    - 0.35/ 0.5

- **Component A (20 AWG) DCR:**
  - < 36 Ω/km

- **Component B (24 AWG) DCR:**
  - < 92 Ω/km

- **Max. Pulling tension**
  - 750 N

- **Flame retardancy**
  - Halogen version according to IEC 60332-1

- **Operating temperature**
  - -40°C to 75°C
Hybrid Optical Fiber Cable (SMPTE311M) Indoor/Mobile

**Min. Bending radii for fibres**
- **Installation/operation**: 25mm
- **Max. increase**: 0.02 dB/turn @1550nm with 32 mm
- **Max. increase**: 0.20 dB/turn @1550nm with 20 mm

**Min. Bending radii cable**: 7xØ

### Belden European Part Numbers

<table>
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<th>Type</th>
<th>7804ENH</th>
<th>7804EPU</th>
<th>7804E</th>
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<td>Halogen-free</td>
<td>Heavy-duty</td>
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<tr>
<td>Studio applications</td>
<td>Field applications</td>
<td>Studio applications</td>
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<tr>
<td>PE insulation</td>
<td>PE insulation</td>
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<tr>
<td>Black FRNC/LSNH jacket</td>
<td>Black PUR jacket</td>
<td>Black PVC jacket</td>
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| Std. delivery length   | 305 / 500 / 1000 m |
| Cable weight           | 135 kg / 1000 m   |

**Updates**

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<td>01</td>
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<td>Introduce Bend Insensitive G.657A fibers</td>
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Belden CDT believes this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.