

Multi Dry Loose Tube Cable up to 144 Fibers

Design Type I-BQ(BN)H Indoor



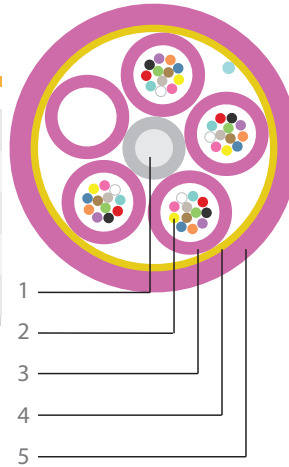
Properties

- Metal free indoor cable
- Completely dry design
- For direct connector assembly
- High flexibility and light weight
- Halogen free and non-corrosive fire gases
- Low fire load for high safety requirements
- Jacket material in accordance with UL 94V-0



Cable Construction

| | |
|---------------------------|-------------------------|
| 1 Central Strength Member | FRP |
| 2 Fiber | SM or MM (250 μ) |
| 3 Loose Tube | LSZH |
| 4 Strength Member | Aramid yarn |
| 5 Outer Jacket | LSZH - FR, UV Resistant |



Sheath Marking

| | | |
|--------------------|---|--------------------------------|
| Print Color/Method | Black / Ink-Jet | (length marking 1 m intervals) |
| Cable Printing | Manufacturer name, fiber count, fiber type, product code, cable type, date, meter marking | |

Optical Characteristics and Physical Properties

| Fiber Type | | SM | OM1 | OM2 | OM3 | OM4 |
|-------------------------------------|----------|----------|------------|------------|-------------|-------------|
| Jacket Color | | Yellow | Orange | Orange | Aqua | Violet |
| Core Diameter (μm) | | 9.0 ±0.5 | 62.5 ±2.5 | 50 ±2.5 | 50 ±2.5 | 50 ±2.5 |
| Cladding Diameter (μm) | | 125 ±5.0 | 125 ±5.0 | 125 ±5.0 | 125 ±5.0 | 125 ±5.0 |
| Primary Coating Diameter (μm) | | 245 ±10 | 245 ±10 | 245 ±10 | 245 ±10 | 245 ±10 |
| Attenuation (max. in cable) (dB/km) | @1310 nm | ≤ 0.40 | - | - | - | - |
| | @1550 nm | ≤ 0.30 | - | - | - | - |
| | @850 nm | - | ≤ 3.4 | ≤ 3.0 | ≤ 3.0 | ≤ 3.0 |
| | @1300 nm | - | ≤ 1.0 | ≤ 1.0 | ≤ 1.0 | ≤ 1.0 |
| Bandwidth (overfilled) | @850 nm | - | 200 Mhz*km | 500 Mhz*km | 1500 Mhz*km | 3500 Mhz*km |
| | @1300 nm | - | 500 Mhz*km | 500 Mhz*km | 500 Mhz*km | 500 Mhz*km |
| Serial Ethernet | @850 nm | - | - | - | 1000 meters | 1040 meters |
| 1 Gigabit | @1300 nm | - | - | - | 600 meters | 600 meters |
| Serial Ethernet | @850 nm | - | - | - | 300 meters | 550 meters |
| 10 Gigabit | @1300 nm | - | - | - | 300 meters | 300 meters |

Mechanical and Environmental Properties

| Test | Test Conditions | Type | Value | Unit | Method |
|---------------------------------|-------------------------------------|-----------|------------|----------|--------------------|
| Tube Diameter | - | 4x12-6x12 | 2.0 | mm | - |
| | | 6x24 | 3.0 | | |
| Approx. Cable Diameter - Weight | - | 4x12 | 6.8 - 38.5 | mm-kg/km | - |
| | | 6x12 | 7.3 - 45.0 | | |
| Max. Tensile Strength | During installation / In service | 4x12 | 1000/500 | N | IEC 60794-1-2 E1 |
| | | 6x12 | 1200/800 | | |
| | | 6x24 | 1200/800 | | |
| Min. Bending Radius | During installation | All types | 15xD | mm | IEC 60794-1-2 E11 |
| | In service | | 10xD | | |
| Crush Resistance | Short term | All types | 5000 | N/dm | IEC 60794-1-2 E3 |
| | Long term | | 1000 | | |
| Impact Resistance | Wp=1.0 J | All types | 50 | impact | IEC 60794-1-2 E4 |
| Temperature Range | During installation | | -10 to +50 | | |
| | In service | - | -10 to +60 | °C | IEC 60794-1-22 F12 |
| | In storage | | -20 to +70 | | |

Combustion Properties

| Fiber Type | Test Conditions | Type | Value | Unit | Result | Method |
|-------------------|----------------------------|-----------|-------|------|--------|---------------|
| Fire Load | - | 4x12 FO | 1.72 | Mj/m | - | - |
| | | 6x12 FO | 3.40 | | | |
| | | 6x24 FO | 4.10 | | | |
| Fire Propagation | On a vertical single cable | All types | - | - | passed | IEC 60332-1-2 |
| Smoke Density | - | All types | - | - | passed | IEC 61034-2 |
| Halogen Acid Gas | Jacket material | All types | - | - | passed | IEC 60754-1 |
| Degree of Acidity | Jacket material | All types | - | - | passed | IEC 60754-2 |

Cable Coding System

| Type | Fiber Count | Cable Type | Diameter | Tube Type | Fiber Type | Sheath Mat. | Color |
|-----------|--|------------------|--|---------------------------------|--|-------------|--|
| Indoor: I | 48 Fiber: 48 72 Fiber: 72 144 Fiber: 144 | Distribution: DI | 6.8 mm: 68 7.3 mm: 73 8.9 mm: 89 | Multi Dry Loose Tube: MDL | SM G.657 A2: A2 SM G.657 B3: B3 MM G.651 OM1: M1 MM G.651 OM2: M2 MM G.651 OM3: M3 MM G.651 OM4: M4 | LSZH: H | Yellow: YE A2 Yellow: YE B3 Orange: OG M1 Orange: OG M2 Aqua: AQ M3 Violet: VT M4 |