

Fiber OSP cable, LightScope ZWP® Blown Single Jacket, 144 fiber, All-Dielectric Stranded Microsheath Tube Construction, Gel-free, Singlemode G.657.A1, Meters jacket marking, Black jacket color

Product Classification

| | |
|------------------------------|-----------------|
| Regional Availability | Europe |
| Portfolio | CommScope® |
| Product Type | Fiber OSP cable |
| Product Series | B-LN |

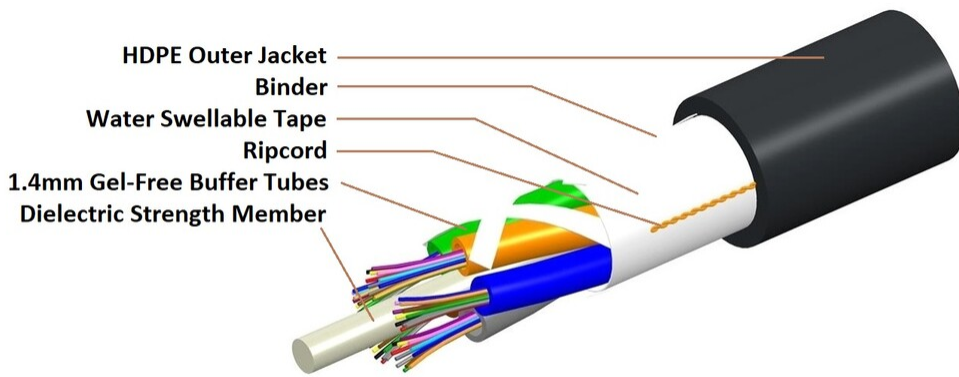
General Specifications

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|-------------------------------------|---|
| Cable Type | Microcable Stranded microsheath tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Jacket Color | Black |
| Jacket Marking | Meters |
| Jacket Marking Method | Inkjet |
| Jacket Marking Text | COMMSCOPE GB F.O. CABLE 810009898/DB 12 X 9 /125 G657A1 HDPE (serial number) (meter mark) |
| Subunit, quantity | 12 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 144 |

Dimensions

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|-------------------------------------|-------------------|
| Buffer Tube/Subunit Diameter | 1.4 mm 0.055 in |
| Diameter Over Jacket | 8.6 mm 0.339 in |

Representative Image



Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

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|---|---------------------------------------|
| Minimum Bend Radius, loaded | 130 mm 5.118 in |
| Minimum Bend Radius, storage coils | 105 mm 4.134 in |
| Minimum Bend Radius, unloaded | 105 mm 4.134 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1000 N 224.809 lbf |
| Compression | 5 N/mm 28.551 lb/in |
| Compression Test Method | IEC 60794-1-21 E3 |
| Flex | 25 cycles |
| Impact | 1 N-m 8.851 in lb |
| Impact Test Method | IEC 60794-1-21 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | IEC 60794-1-21 E1 |
| Twist | 5 cycles |
| Twist Test Method | IEC 60794-1-21 E7 |

Optical Specifications

Fiber Type G.657.A1

Environmental Specifications

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|--------------------------------------|--------------------------------------|
| Installation temperature | -10 °C to +50 °C (+14 °F to +122 °F) |
| Operating Temperature | -30 °C to +60 °C (-22 °F to +140 °F) |
| Storage Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Cable Qualification Standards | IEC 60794-1-2 |
| Environmental Space | Air-blown, microduct |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | IEC 60794-1 F4 |

Environmental Test Specifications

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|--------------------------------------|--------------------------------------|
| Low High Bend | -15 °C to +23 °C (+5 °F to +73 °F) |
| Low High Bend Test Method | IEC 60794-1-21 E11 |
| Temperature Cycle | -30 °C to +60 °C (-22 °F to +140 °F) |
| Temperature Cycle Test Method | IEC 60794-1-22 F1 |

Packaging and Weights

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|---------------------|----------------------------|
| Cable weight | 54.5 kg/km 36.622 lb/kft |
|---------------------|----------------------------|

Included Products

- CS-8F-LT – Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

CS-8F-LT

Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

Product Classification

| | |
|---------------------|---------------|
| Portfolio | CommScope® |
| Product Type | Optical fiber |

General Specifications

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| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.7 µm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 249 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±13 µm |
| Coating Diameter Tolerance (Uncolored) | ±5 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

Dimensions

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|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

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| Macrobending, 20 mm Ø mandrel, 1 turn | 0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm |
| Macrobending, 30 mm Ø mandrel, 10 turns | 0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 50 mm Ø mandrel, 100 turns | 0.03 dB @ 1,550 nm 0.05 dB @ 1,625 nm |
| Coating Strip Force, maximum | 8.9 N 2.001 lbf |
| Coating Strip Force, minimum | 1.3 N 0.292 lbf |
| Dynamic Fatigue Parameter, minimum | 20 |

Optical Specifications

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|--|--------------------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |
| Zero Dispersion Slope, maximum | 0.09 ps/[km-nm-nm] |

CS-8F-LT

| | |
|--|---------|
| Zero Dispersion Wavelength, maximum | 1324 nm |
| Zero Dispersion Wavelength, minimum | 1300 nm |

Optical Specifications, Wavelength Specific

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| Attenuation, maximum | 0.25 dB/km @ 1,550 nm 0.27 dB/km @ 1,490 nm 0.27 dB/km @ 1,625 nm 0.33 dB/km @ 1,385 nm 0.36 dB/km @ 1,310 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.467 @ 1,385 nm 1.468 @ 1,550 nm |
| Mode Field Diameter | 8.6 μm @ 1,310 nm 9.8 μm @ 1,550 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.06 ps/sqrt(km) |
| Standards Compliance | ITU-T G.657.A1 TIA-492CAAB (OS2) |

Environmental Specifications

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|--|--------------------|
| Heat Aging, maximum | 0.05 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.05 dB/km |
| Temperature Humidity Cycling, maximum | 0.05 dB/km |
| Water Immersion, maximum | 0.05 dB/km @ 23 °C |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

* Footnotes

| | |
|--|---|
| Temperature Dependence, maximum | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F) |
| Temperature Humidity Cycling, maximum | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |