



Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket, 96 fiber, All-Dielectric Stranded Loose Tube Arid-Core® Construction, Gel-filled, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color

Product Classification

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

General Specifications

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|-------------------------------------|---------------------|
| Cable Type | Stranded loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-filled |
| Jacket Color | Black |
| Jacket Marking | Meters |
| Subunit, quantity | 8 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 96 |

Dimensions

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|-------------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 1.25 mm 0.049 in |
| Diameter Over Jacket | 5.4 mm 0.213 in |

Representative Image



Material Specifications

Jacket Material High density polyethylene (HDPE)

Mechanical Specifications

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|--|---------------------------------------|
| Minimum Bend Radius, loaded | 180 mm 7.087 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 |
| Flex Test Method | IEC 60794-1 E6 |
| 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 | 10 cycles |
| Twist Test Method | IEC 60794-1-21 E7 |

Optical Specifications

Fiber Type G.652.D and G.657.A1

Environmental Specifications

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|--------------------------------------|--------------------------------------|
| Installation temperature | -15 °C to +40 °C (+5 °F to +104 °F) |
| Operating Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Storage Temperature | -40 °C to +75 °C (-40 °F to +167 °F) |
| Cable Qualification Standards | IEC 60794-5-10 |
| 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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|--------------------------------------|--------------------------------------|
| Drip | 70 °C 158 °F |
| Drip Test Method | IEC 60794-1-21 E14 |
| Heat Age | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1-22 F9 |
| Temperature Cycle | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | IEC 60794-1-22 F1 |

Packaging and Weights

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|---------------------|--------------------------|
| Cable weight | 27 kg/km 18.143 lb/kft |
|---------------------|--------------------------|

Included Products

DB-8W-LT – LightScope ZWP® Singlemode
Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

DB-8W-LT

LightScope ZWP® 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 Diameter | 8.3 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, 60 mm Ø mandrel, 100 turns | 0.05 dB @ 1,550 nm 0.05 dB @ 1,625 nm |
| Coating Strip Force, maximum | 8.9 N 2.001 lbf |

DB-8W-LT

| | |
|---|-------------------|
| 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 | 0.092 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1324 nm |
| Zero Dispersion Wavelength, minimum | 1300 nm |

Optical Specifications, Wavelength Specific

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|--|---|
| Attenuation, maximum | 0.22 dB/km @ 1,550 nm 0.25 dB/km @ 1,490 nm 0.25 dB/km @ 1,625 nm 0.36 dB/km @ 1,310 nm 0.36 dB/km @ 1,385 nm |
| Attenuation, typical | 0.19 dB/km @ 1,550 nm 0.33 dB/km @ 1,310 nm |
| Backscatter Coefficient | -79.6 dB @ 1,310 nm -82.1 dB @ 1,550 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 | 10.4 μm @ 1,550 nm 9.2 μm @ 1,310 nm 9.6 μm @ 1,385 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm $\pm 0.6 \mu\text{m}$ @ 1385 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.04 ps/sqrt(km) |
| Standards Compliance | ITU-T G.652.D ITU-T G.657.A1 |

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 |

DB-8W-LT

* 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