



Fiber OSP cable, LightScope ZWP® Single Jacket/Single Armor, Gel-Free, Stranded Loose Tube, 4 fiber, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

- Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection
- *Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

Product Classification

| | |
|------------------------------|---|
| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
| Portfolio | CommScope® |
| Product Type | Fiber OSP cable |
| Product Series | D-LA |
| Government Funding | Build America Buy America (BABA) compliant* |

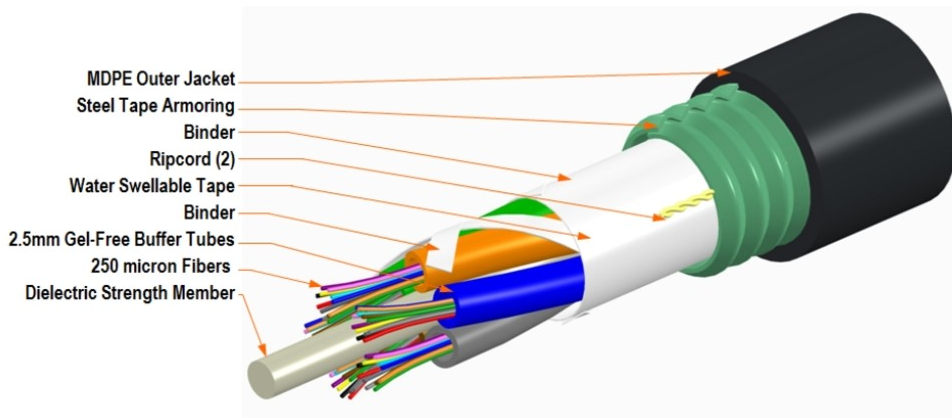
General Specifications

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|-------------------------------------|---------------------|
| Armor Type | Corrugated steel |
| Cable Type | Stranded loose tube |
| Construction Type | Armored |
| Subunit Type | Gel-free |
| Filler, quantity | 4 |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Subunit, quantity | 1 |
| Fibers per Subunit, quantity | 4 |
| Total Fiber Count | 4 |

Dimensions

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|-------------------------------------|--------------------|
| Buffer Tube/Subunit Diameter | 2.5 mm 0.098 in |
| Diameter Over Jacket | 11.5 mm 0.453 in |

Representative Image



Material Specifications

Jacket Material PE

Mechanical Specifications

Minimum Bend Radius, loaded 173 mm | 6.811 in

Minimum Bend Radius, unloaded 115 mm | 4.528 in

Tensile Load, long term, maximum 800 N | 179.847 lbf

Tensile Load, short term, maximum 2700 N | 606.984 lbf

Compression 22 N/mm | 125.623 lb/in

Compression Test Method FOTP-41 | IEC 60794-1 E3

Flex 25 cycles

Flex Test Method FOTP-104 | IEC 60794-1 E6

Impact 4.41 N-m | 39.032 in lb

Impact Test Method FOTP-25 | IEC 60794-1 E4

Strain See long and short term tensile loads

Strain Test Method FOTP-33 | IEC 60794-1 E1

Twist 10 cycles

Twist Test Method FOTP-85 | IEC 60794-1 E7

Vertical Rise, maximum 740 m | 2,427.822 ft

Optical Specifications

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

Environmental Specifications

| | |
|--------------------------------------|--------------------------------------|
| Installation temperature | -30 °C to +70 °C (-22 °F to +158 °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 | ANSI/ICEA S-87-640 EN 187105 |
| Environmental Space | Aerial, lashed Buried |
| Jacket UV Resistance | UV stabilized |
| Water Penetration | 24 h |
| Water Penetration Test Method | FOTP-82 IEC 60794-1 F5 |

Environmental Test Specifications

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|--------------------------------------|--------------------------------------|
| Cable Freeze | -2 °C 28.4 °F |
| Cable Freeze Test Method | FOTP-98 IEC 60794-1 F15 |
| Heat Age | -40 °C to +85 °C (-40 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | -30 °C to +60 °C (-22 °F to +140 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | -40 °C to +70 °C (-40 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

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|---------------------|---------------------------|
| Cable weight | 110 kg/km 73.917 lb/kft |
|---------------------|---------------------------|

Regulatory Compliance/Certifications

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



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