# 8107925/DB   |   D-008-LA-8W-M08NS

Fiber OSP cable, LightScope ZWP® Single Jacket/Single Armor, 8 fiber, Gel-Free, Stranded Loose Tube, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color

- Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection
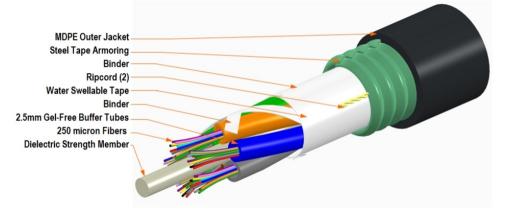
## Product Classification

| | |
|---|---|
| **Regional Availability** | Asia   |   Australia/New Zealand   |   EMEA   |   Latin America   |   North America |
| **Portfolio** | CommScope® |
| **Product Type** | Fiber OSP cable |
| **Product Series** | D-LA |

## General Specifications

| | |
|---|---|
| **Armor Type** | Corrugated steel |
| **Cable Type** | Stranded loose tube |
| **Construction Type** | Armored |
| **Subunit Type** | Gel-free |
| **Filler, quantity** | 4 |
| **Jacket Color** | Black |
| **Jacket Marking** | Meters |
| **Subunit, quantity** | 1 |
| **Fibers per Subunit, quantity** | 8 |
| **Total Fiber Count** | 8 |

## Dimensions

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

## Representative Image

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## 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 |

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## 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 Penentration** | 24 h |
| **Water Penetration Qualification Method** | ANSI/ICEA S-87-640 |
| **Water Penentration Test Method** | FOTP-82   |   IEC 60794-1 F5 |

## Environmental Test Specifications

| | |
|---|---|
| **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

| | |
|---|---|
| **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

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## LightScope ZWP® Singlemode Fiber

LightScope ZWP

## Product Classification

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

## General Specifications

| | |
|---|---|
| **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/mm²  \|  100000 psi |

## Dimensions

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

## Mechanical Specifications

| | |
|---|---|
| **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 |

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# DB-8W-LT

| | |
|---|---|
| **Coating Strip Force, minimum** | 1.3 N   \|   0.292 lbf |
| **Dynamic Fatigue Parameter, minimum** | 20 |

## Optical Specifications

| | |
|---|---|
| **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

| | |
|---|---|
| **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** | ±0.4 µm @ 1310 nm   \|   ±0.5 µm @ 1550 nm   \|   ±0.6 µm @ 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

| | |
|---|---|
| **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 |

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## * 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 |

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