

Fiber drop cable, LightScope® ZWP Single Jacket Single Armor Outdoor Drop Cable, 6 fiber Arid Core construction, central loose tube, Gel-filled, 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 drop cable  |
| Product Series          | O-DA  |
| Government Requirements | Build America Buy America (BABA) compliant*                         |

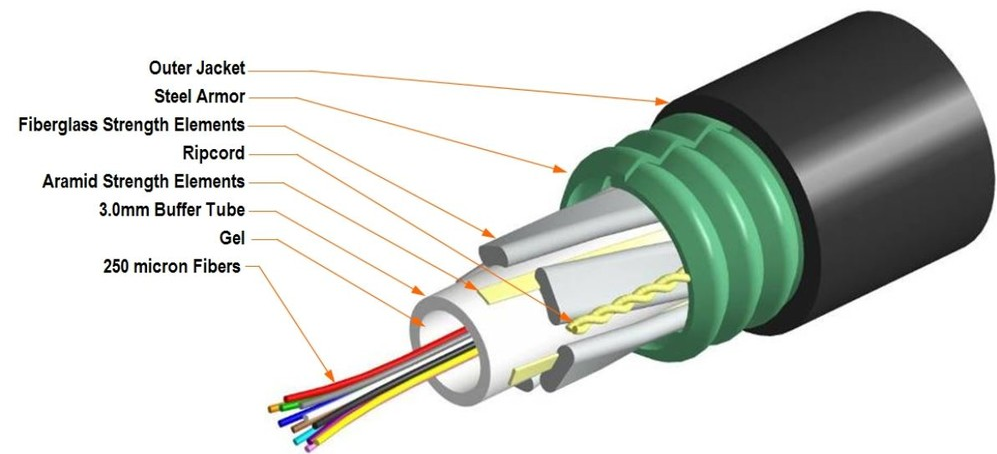
## General Specifications

|                              |                         |
|------------------------------|-------------------------|
| Armor Type                   | Corrugated steel        |
| Cable Type                   | Central loose tube      |
| Construction Type            | Armored                 |
| Subunit Type                 | Gel-filled              |
| Jacket Color                 | Black                   |
| Jacket Marking               | Feet                    |
| Location of Manufacturing    | Catawba, North Carolina |
| Subunit, quantity            | 1                       |
| Fibers per Subunit, quantity | 6                       |
| Total Fiber Count            | 6                       |

## Dimensions

|                              |                 |
|------------------------------|-----------------|
| Buffer Tube/Subunit Diameter | 3 mm   0.118 in |
| Diameter Over Jacket         | 8 mm   0.315 in |

Representative Image



Material Specifications

|                 |    |
|-----------------|----|
| Jacket Material | PE |
|-----------------|----|

Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded       | 120 mm   4.724 in                     |
| Minimum Bend Radius, unloaded     | 80 mm   3.15 in                       |
| Tensile Load, long term, maximum  | 400 N   89.924 lbf                    |
| Tensile Load, short term, maximum | 1334 N   299.895 lbf                  |
| Compression                       | 10 N/mm   57.101 lb/in                |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3              |
| Flex                              | 35 cycles                             |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6             |
| Impact                            | 2.94 N-m   26.021 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            | 589 m   1,932.415 ft                  |

Optical Specifications

Fiber TypeG.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-110-717                  |
| Environmental Space           | Aerial, lashed                       |
| Jacket UV Resistance          | UV stabilized                        |
| Water Penetration             | 24 h                                 |
| Water Penetration 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            |
| Drip                          | 70 °C   158 °F                       |
| Drip Test Method              | FOTP-81   IEC 60794-1 E14            |
| 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 | 69 kg/km   46.366 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



### Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

### General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.7 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 0.7 %                                  |
| <b>Coating Diameter (Colored)</b>                    | 249 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 242 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±13 µm                                 |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±5 µm                                  |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core Diameter</b>                                 | 8.3 µm                                 |
| <b>Core/Clad Offset, maximum</b>                     | 0.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

### Dimensions

|                            |                 |
|----------------------------|-----------------|
| <b>Fiber Curl, minimum</b> | 4 m   13.123 ft |
|----------------------------|-----------------|

### Mechanical Specifications

|   |   |
|---|---|
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>    | 0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b>  | 0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 60 mm Ø mandrel, 100 turns</b> | 0.05 dB @ 1,550 nm   0.05 dB @ 1,625 nm |
| <b>Coating Strip Force, maximum</b>             | 8.9 N   2.001 lbf                       |

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|                                    |                   |
|------------------------------------|-------------------|
| 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 |

# DB-8W-LT

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\* Footnotes

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