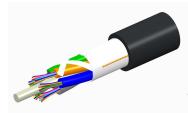
8107363/DB/GS | D-096-LN-8W-F12NS/GS



Fiber OSP cable, LightScope® ZWP Single Jacket All-Dielectric, 96 fiber, Gel-Free, Stranded Loose Tube, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

Product Classification

| Regional Availability | Asia Australia/New Zealand EMEA Latin America North America |
|------------------------------|--|
| Portfolio | CommScope® |
| Product Type | Fiber OSP cable |
| Product Series | D-LN |
| General Specifications | |
| Cable Type | Stranded loose tube |
| Construction Type | Non-armored |
| Subunit Type | Gel-free |
| Filler, quantity | 2 |
| Jacket Color | Black |
| Jacket Marking | Feet |
| Subunit, quantity | 8 |
| Fibers per Subunit, quantity | 12 |
| Total Fiber Count | 96 |
| Dimensions | |
| Buffer Tube/Subunit Diameter | 2.5 mm 0.098 in |
| Diameter Over Jacket | 12 mm 0.472 in |
| | |

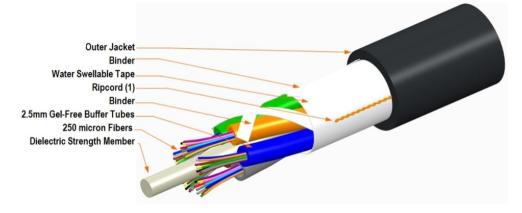
Representative Image

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Material Specifications

| Jacket Material | PE |
|-----------------------------------|---------------------------------------|
| Mechanical Specifications | |
| Minimum Bend Radius, loaded | 180 mm 7.087 in |
| Minimum Bend Radius, unloaded | 120 mm 4.724 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 | 904 m 2,965.879 ft |
| Optical Specifications | |

Fiber Type

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

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COMMSCOPE°

8107363/DB/GS | D-096-LN-8W-F12NS/GS

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 Telcordia GR-20 |
| 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

| Cable Freeze | -2 °C 28.4 °F | |
|-------------------------------|---|--|
| Cable Freeze Test Method | e 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 | | |

Packaying and weights

Cable weight

90 kg/km | 60.477 lb/kft

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[®] 2000

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 Tensile Stress | 100,000 psi (0.69 GPa) | |
| 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 | |
| Coating Strip Force, minimum | 1.3 N 0.292 lbf | |
| Dynamic Fatigue Parameter, minimum | 20 | |

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DB-8W-LT

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

Classification

Agency

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

* Footnotes

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DB-8W-LT

Temperature Dependence, maximumTemperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)Temperature Humidity Cycling, maximumTemperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F)

up to 95% relative humidity

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