## 810009902/DB | B-072-LN-8F-M12BK/14D



Fiber OSP cable, LightScope® ZWP Blown Single Jacket, 72 fiber, All-Dielectric Stranded Microsheath Tube Construction, Gel-free, Singlemode G.657.Al, Meters jacket marking, Black jacket color

#### **Product Classification**

Regional Availability Europe

 Portfolio
 CommScope®

 Product Type
 Fiber OSP cable

Product Series B-LN

General Specifications

Cable Type Microcable | Stranded microsheath tube

Construction Type Non-armored

Subunit TypeGel-freeJacket ColorBlackJacket MarkingMetersJacket Marking MethodInkjet

Jacket Marking Text COMMSCOPE GB F.O. CABLE 810009902/DB 72 X 9/125 G657A1 HDPE (serial number)

(meter mark)

Subunit, quantity 6

Fibers per Subunit, quantity 12

Total Fiber Count 72

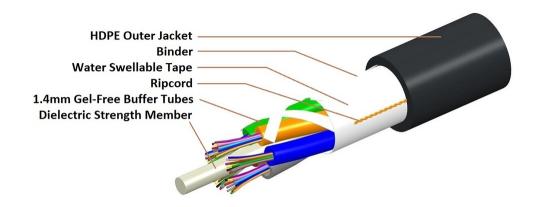
**Dimensions** 

Buffer Tube/Subunit Diameter1.4 mm0.055 inDiameter Over Jacket5.9 mm0.232 in

### Representative Image



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#### Material Specifications

Jacket Material High density polyethylene (HDPE)

### Mechanical Specifications

Minimum Bend Radius, loaded120 mm | 4.724 inMinimum Bend Radius, storage coils75 mm | 2.953 inMinimum Bend Radius, unloaded75 mm | 2.953 inTensile Load, long term, maximum400 N | 89.924 lbfTensile Load, short term, maximum1000 N | 224.809 lbfCompression5 N/mm | 28.551 lb/in

**Compression Test Method** IEC 60794-1-21 E3

Flex 25 cycles

 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** 5 cycles

Twist Test Method IEC 60794-1-21 E7

Optical Specifications

**Fiber Type** G.657.A1



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#### **Environmental Specifications**

Installation temperature  $-10 \,^{\circ}\text{C}$  to  $+50 \,^{\circ}\text{C}$  (+14  $^{\circ}\text{F}$  to +122  $^{\circ}\text{F}$ )

Operating Temperature  $-30 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  (-22  $^{\circ}\text{F}$  to +140  $^{\circ}\text{F}$ )

Storage Temperature  $-40 \,^{\circ}\text{C}$  to  $+70 \,^{\circ}\text{C}$  (-40  $^{\circ}\text{F}$  to +158  $^{\circ}\text{F}$ )

**Cable Qualification Standards** IEC 60794-1-2

**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**

**Low High Bend** -15 °C to +23 °C (+5 °F to +73 °F)

**Low High Bend Test Method** IEC 60794-1-21 E11

**Temperature Cycle** -30 °C to +60 °C (-22 °F to +140 °F)

**Temperature Cycle Test Method** IEC 60794-1-22 F1

Packaging and Weights

**Cable weight** 28.4 kg/km | 19.084 lb/kft

#### Included Products

CS-8F-LT – Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode

Fiber

#### \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable



# CS-8F-LT

#### Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

#### **Product Classification**

 Portfolio
 CommScope®

 Product Type
 Optical fiber

General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance** ±0.7 µm 0.7 % **Cladding Non-Circularity, maximum Coating Diameter (Colored)** 249 um **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/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 1.50 dB @ 1,625 nm

 Macrobending, 30 mm Ø mandrel, 10 turns
 0.25 dB @ 1,550 nm
 1 1.00 dB @ 1,625 nm

 Macrobending, 50 mm Ø mandrel, 100 turns
 0.03 dB @ 1,550 nm
 0.05 dB @ 1,625 nm

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1260 nmPoint Defects, maximum0.1 dB

**Zero Dispersion Slope, maximum** 0.09 ps/[km-nm-nm]

**COMMSCOPE®** 

## CS-8F-LT

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

**Attenuation, maximum** 0.25 dB/km @ 1,550 nm | 0.27 dB/km @ 1,490

nm | 0.27 dB/km @ 1,625 nm | 0.33 dB/km @ 1,385

nm | 0.36 dB/km @ 1,310 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
 8.6 μm @ 1,310 nm | 9.8 μm @ 1,550 nm

Mode Field Diameter Tolerance  $\pm 0.4 \, \mu \text{m}$  @ 1310 nm |  $\pm 0.5 \, \mu \text{m}$  @ 1550 nm

**Polarization Mode Dispersion Link Design Value, maximum** 0.06 ps/sqrt(km)

Standards Compliance ITU-T G.657.A1 | TIA-492CAAB (OS2)

#### **Environmental Specifications**

**Heat Aging, maximum** 0.05 dB/km @ 85 °C

Temperature Dependence, maximum0.05 dB/kmTemperature Humidity Cycling, maximum0.05 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

#### \* 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

