

Fiber OSP cable, LightScope® ZWP Mini Single Jacket All-Dielectric, High Tensile Strength, Gel-Filled, Singlemode G.652.D and G.657.A1, 12 fiber, Stranded Loose Tube, Meters jacket marking, Black jacket color, Provides Rodent Resistance

## Product Classification

<b>Regional Availability</b>	Asia   Australia/New Zealand   EMEA
<b>Portfolio</b>	CommScope®
<b>Product Type</b>	Fiber OSP cable
<b>Product Series</b>	O-LN

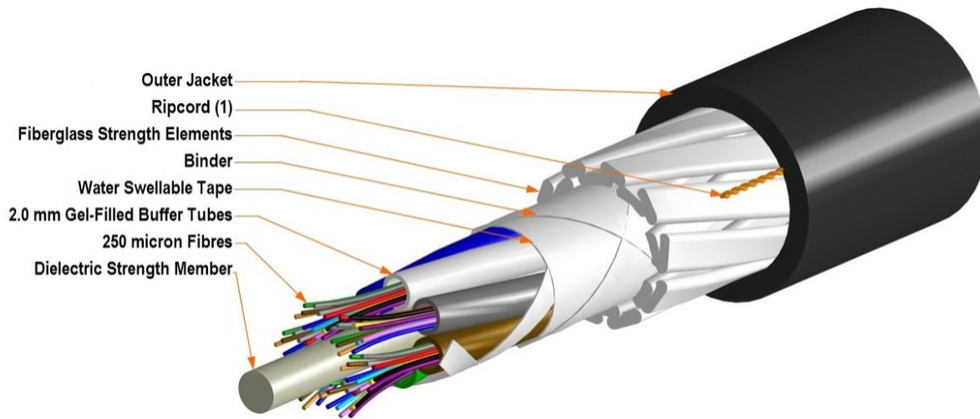
## General Specifications

<b>Cable Type</b>	Stranded loose tube
<b>Construction Type</b>	Non-armored
<b>Subunit Type</b>	Gel-filled
<b>Filler, quantity</b>	5
<b>Jacket Color</b>	Black
<b>Jacket Marking</b>	Meters
<b>Jacket Marking Method</b>	Inkjet
<b>Jacket Marking Text</b>	COMMSCOPE GB OPTICAL CABLE 810009682/DB OS2 SM 12 MDPE [SERIAL NUMBER] [METRE MARK]
<b>Subunit, quantity</b>	1
<b>Fibers per Subunit, quantity</b>	12
<b>Total Fiber Count</b>	12

## Dimensions

<b>Buffer Tube/Subunit Diameter</b>	2 mm   0.079 in
<b>Diameter Over Jacket</b>	11.6 mm   0.457 in

## Representative Image



## Material Specifications

**Jacket Material** PE

## Mechanical Specifications

**Minimum Bend Radius, loaded** 174 mm | 6.85 in

**Minimum Bend Radius, unloaded** 116 mm | 4.567 in

**Tensile Load, long term, maximum** 1350 N | 303.492 lbf

**Tensile Load, short term, maximum** 4500 N | 1,011.641 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** 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** 1345 m | 4,412.73 ft

## Optical Specifications

**Fiber Type** G.652.D and G.657.A1, TeraSPEED® | OS2

## Environmental Specifications

# 810009682/DB | O-012-LN-8W-M12NS/20G/HTS

<b>Installation temperature</b>	-10 °C to +50 °C (+14 °F to +122 °F)
<b>Operating Temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Cable Qualification Standards</b>	ANSI/ICEA S-87-640   EN 187105   IEC 60794-1-2
<b>Jacket UV Resistance</b>	UV stabilized
<b>Water Penetration</b>	24 h
<b>Water Penetration Test Method</b>	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

<b>Cable Freeze</b>	-2 °C   28.4 °F
<b>Cable Freeze Test Method</b>	FOTP-98   IEC 60794-1 F15
<b>Drip</b>	70 °C   158 °F
<b>Drip Test Method</b>	FOTP-81   IEC 60794-1 E14
<b>Heat Age</b>	0 °C to +85 °C (+32 °F to +185 °F)
<b>Heat Age Test Method</b>	IEC 60794-1 F9
<b>Low High Bend</b>	-15 °C to +40 °C (+5 °F to +104 °F)
<b>Low High Bend Test Method</b>	FOTP-37   IEC 60794-1 E11
<b>Temperature Cycle</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Temperature Cycle Test Method</b>	FOTP-3   IEC 60794-1 F1

## Packaging and Weights

<b>Cable weight</b>	115 kg/km   77.276 lb/kft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## Included Products

CS-8W-250-EMEA

# 810009682/DB | O-012-LN-8W-M12NS/20G/HTS

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8W-250um - LightScope® ZWP Singlemode Fiber

## \* Footnotes

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



## LightScope® ZWP Singlemode Fiber

### 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>	±7 µm
<b>Coating/Cladding Concentricity Error, maximum</b>	12 µm
<b>Core/Clad Offset, maximum</b>	0.5 µm
<b>Proof Tensile Stress</b>	100,000 psi (0.69 GPa)

### Dimensions

<b>Fiber Curl, minimum</b>	4 m   13.123 ft
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### 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
<b>Coating Strip Force, minimum</b>	1.3 N   0.292 lbf
<b>Dynamic Fatigue Parameter, minimum</b>	20

### Optical Specifications

# CS-8W-250-EMEA | 8W-250um

<b>Cabled Cutoff Wavelength, maximum</b>	1250 nm
<b>Point Defects, maximum</b>	0.05 dB
<b>Zero Dispersion Slope, maximum</b>	0.092 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1324 nm
<b>Zero Dispersion Wavelength, minimum</b>	1300 nm

## Optical Specifications, Wavelength Specific

<b>Attenuation, maximum</b>	0.20 dB/km @ 1550 nm   0.23 dB/km @ 1,625 nm   0.344 dB/km @ 1310 nm   0.344 dB/km @ 1380 – 1385 nm
<b>Dispersion, maximum</b>	18 ps(nm-km) at 1550 nm   22 ps(nm-km) at 1625 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
<b>Index of Refraction</b>	1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm
<b>Mode Field Diameter</b>	10.4 $\mu\text{m}$ @ 1,550 nm   9.2 $\mu\text{m}$ @ 1,310 nm
<b>Mode Field Diameter Tolerance</b>	$\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm
<b>Polarization Mode Dispersion Link Design Value, maximum</b>	0.05 ps/sqrt(km)
<b>Standards Compliance</b>	ITU-T G.652.D   ITU-T G.657.A1

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.05 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.05 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.05 dB/km
<b>Water Immersion, maximum</b>	0.05 dB/km @ 23 °C

## \* 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