860646603/DB | O-012-LA-8W-M12NS/20G

Fiber OSP cable, LightScope® ZWP Mini Single Jacket/Single Armor, 12 fiber, Gel-Filled, 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	EMEA
Portfolio	CommScope®
Product Type	Fiber OSP cable
Product Series	O-LA

General Specifications

Armor Type	Corrugated steel
Cable Type	Stranded loose tube
Construction Type	Armored
Subunit Type	Gel-filled
Filler, quantity	5
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMSCOPE GB OPTICAL CABLE TYPE OS2 SM 12 FIBER [SERIAL NUMBER] [MM/YYYY] [METRE MARK]
Subunit, quantity	1
Fibers per Subunit, quantity	12
Total Fiber Count	12

Dimensions

Buffer Tube/Subunit Diameter	2 mm	0.079 in
Diameter Over Jacket	10.8 mm	0.425 in

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Representative Image

Material Specifications

Jacket Material	PE

Mechanical Specifications

Minimum Bend Radius, loaded	162 mm | 6.378 in
Minimum Bend Radius, unloaded	108 mm | 4.252 in
Tensile Load, long term, maximum	800 N | 179.847 lbf
Tensile Load, short term, maximum	2700 N | 606.984 lbf
Compression	44 N/mm | 251.246 lb/in
Compression Test Method	IEC 60794-1 E3
Flex	25 cycles
Flex Test Method	IEC 60794-1 E6
Impact	10 N-m | 88.507 in lb
Impact Test Method	IEC 60794-1 E4
Strain	See long and short term tensile loads
Strain Test Method	IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	IEC 60794-1 E7
Vertical Rise, maximum	672 m | 2,204.724 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	IEC 60794-1-2
Environmental Space	Aerial, lashed	Buried
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	IEC 60794-1 F5

Environmental Test Specifications

Cable Freeze	-2 °C	28.4 °F
Cable Freeze Test Method	IEC 60794-1 F15
Drip	70 °C	158 °F
Drip Test Method	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	IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	IEC 60794-1 F1

Packaging and Weights

Cable weight	122 kg/km	81.98 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
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 www.commscope.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

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Included Products

CS-8W-250-EMEA 250um – LightScope® ZWP Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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CS-8W-250-EMEA | 250um

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/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
Coating Strip Force, minimum	1.3 N	0.292 lbf

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CS-8W-250-EMEA | 250um

Dynamic Fatigue Parameter, minimum	20

Optical Specifications

Cabled Cutoff Wavelength, maximum	1250 nm
Point Defects, maximum	0.05 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	0.21 dB/km @ 1,550 nm	0.24 dB/km @ 1625 nm	0.25 dB/km @ 1,490 nm	0.35 dB/km @ 1,310 nm	0.35 dB/km @ 1,385 nm
Dispersion, maximum	18 ps(nm-km) at 1550 nm	2.2 ps(nm-km) at 1625 nm	3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
Index of Refraction	1.467 @ 1,310 nm	1.468 @ 1,550 nm
Mode Field Diameter	10.4 µm @ 1,550 nm	9.2 µm @ 1,310 nm
Mode Field Diameter Tolerance	±0.4 µm @ 1310 nm	±0.5 µm @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.06 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

* 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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