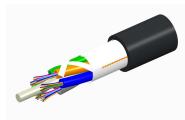# 810010032/DB | C-036-LN-8W-M12BK/25D/E

Fiber indoor/outdoor cable, Single Jacket All-Dielectric, LSZH, 36 fiber, Gel-Free, Stranded Loose Tube, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color, Eca flame rating

Product Classification

Regional Availability	Asia	Australia/New Zealand	EMEA	Latin America
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	C-LN

General Specifications

Cable Type	Stranded loose tube
Construction Type	Non-armored
Subunit Type	Gel-free
Filler, quantity	2
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMSCOPE GB OPTICAL CABLE OS2 SM 36 FIBER EN50575 CLASS E [SERIAL NUMBER] [MM /YY] [METRE MARK]
Subunit, quantity	3
Fibers per Subunit, quantity	12
Total Fiber Count	36

Dimensions

Buffer Tube/Subunit Diameter	2.5 mm	0.098 in
Diameter Over Jacket	11.7 mm	0.461 in

Representative Image

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Mechanical Specifications

Minimum Bend Radius, loaded	175 mm | 6.89 in
Minimum Bend Radius, unloaded	117 mm | 4.606 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	3 N-m | 26.552 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	654 m | 2,145.669 ft

Optical Specifications

Fiber Type	G.652.D and G.657.A1

Environmental Specifications

Installation temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)

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Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Cable Qualification Standards	ANSI/ICEA S-104-696	EN 187105	Telcordia GR-20	Telcordia GR-409
EN50575 CPR Cable EuroClass Fire Performance	Eca
Environmental Space	Aerial, lashed	Buried	Low Smoke Zero Halogen (LSZH)
Flame Test Listing	EN 50399
Flame Test Method	EN 50399	IEC 60332-1-2	IEC 60754-2
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	125 kg/km	83.996 lb/kft

Included Products

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

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

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

LightScope® ZWP Singlemode Fiber

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)	±7 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	1.50 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

Optical Specifications

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

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	0.20 dB/km @ 1550 nm	0.23 dB/km @ 1,625 nm	0.344 dB/km @ 1310 nm	0.344 dB/km @ 1380 − 1385 nm
Dispersion, maximum	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
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
Mode Field Diameter Tolerance	±0.4 μm @ 1310 nm	±0.5 μm @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.05 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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