

Indoor/Outdoor Low Smoke Zero Halogen MicroDistribution Cable, 12-Fiber

Product Classification

Regional Availability	Europe
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	Z-MD

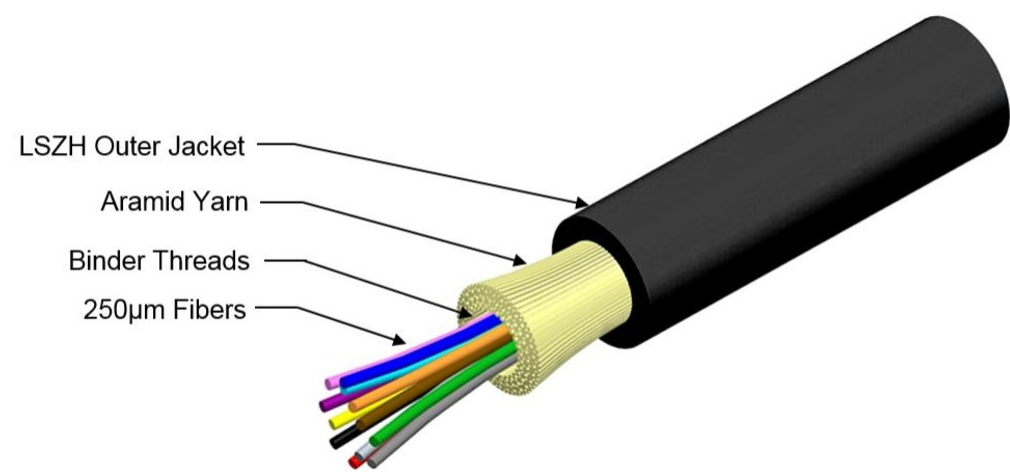
General Specifications

Cable Type	Distribution
Construction Type	Non-armored
Subunit Type	Gel-free
Jacket Color	Black
Jacket Marking	Feet
Subunit, quantity	1
Total Fiber Count	12

Dimensions

Diameter Over Jacket	3.65 mm   0.144 in
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Representative Image



## Mechanical Specifications

Minimum Bend Radius, loaded	54 mm   2.126 in
Minimum Bend Radius, unloaded	29 mm   1.142 in
Tensile Load, long term, maximum	54 N   12.14 lbf
Tensile Load, short term, maximum	178 N   40.016 lbf
Compression	4 N/mm   22.841 lb/in
Compression Test Method	FOTP-41   IEC 60794-1 E3
Flex	300 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	400 m   1,312.336 ft

## Optical Specifications

Fiber Type	G.657.A2/B2
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## Environmental Specifications

Installation temperature	-10 °C to +60 °C (+14 °F to +140 °F)
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Operating Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Cable Qualification Standards	ANSI/ICEA S-104-696   Telcordia GR-20 (water penetration)   Telcordia GR-409
EN50575 CPR Cable EuroClass Fire Performance	Dca
EN50575 CPR Cable EuroClass Smoke Rating	s1a
EN50575 CPR Cable EuroClass Droplets Rating	d0
EN50575 CPR Cable EuroClass Acidity Rating	a1
Environmental Space	Low Smoke Zero Halogen (LSZH)
Flame Test Listing	NEC OFNR-ST1 (ETL) and c(ETL)
Flame Test Method	IEC 60754-2   IEC 61034-2   UL 1666   UL 1685
Jacket UV Resistance	UV stabilized
Water Penetration	24 h
Water Penetration Test Method	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

Heat Age	-40 °C to +85 °C (-40 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-10 °C to +60 °C (+14 °F to +140 °F)
Low High Bend Test Method	FOTP-37   IEC 60794-1 E11
Temperature Cycle	-40 °C to +75 °C (-40 °F to +167 °F)
Temperature Cycle Test Method	FOTP-3   IEC 60794-1 F1

## Packaging and Weights

Cable weight	12.7 kg/km   8.534 lb/kft
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## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="https://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



Included Products

- CS-8V-MD
- Enhanced Low Macrobending, Low Water Peak, Dispersion-Unshifted Single-mode Fiber

\* Footnotes

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

# CS-8V-MD

Enhanced Low Macrobending, Low Water Peak, Dispersion-Unshifted Single-mode 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	0.5 %
Coating Diameter (Uncolored)	242 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±7 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
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## Mechanical Specifications

Macrobending, 15 mm Ø mandrel, 1 turn	0.50 dB @ 1,550 nm   1.00 dB @ 1,625 nm
Macrobending, 20 mm Ø mandrel, 1 turn	0.10 dB @ 1,550 nm   0.20 dB @ 1,625 nm
Macrobending, 30 mm Ø mandrel, 10 turns	0.03 dB @ 1,550 nm   0.10 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

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

# CS-8V-MD

Zero Dispersion Wavelength, minimum	1300 nm
Optical Specifications, Wavelength Specific	
Attenuation, maximum	0.40 dB/km @ 1,310 nm   0.40 dB/km @ 1,385 nm   0.40 dB/km @ 1,550 nm
Backscatter Coefficient	-79.1 dB @ 1,310 nm   -81.4 dB @ 1,550 nm   -82.2 dB @ 1,625 nm
Index of Refraction	1.467 @ 1,310 nm   1.467 @ 1,550 nm   1.468 @ 1,625 nm
Mode Field Diameter	8.9 µm @ 1,310 nm   9.9 µm @ 1,550 nm
Mode Field Diameter Tolerance	±0.4 µm @ 1310 nm   ±0.5 µm @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.1 ps/sqrt(km)
Standards Compliance	ITU-T G.657.A2   ITU-T G.657.B2

## 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

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