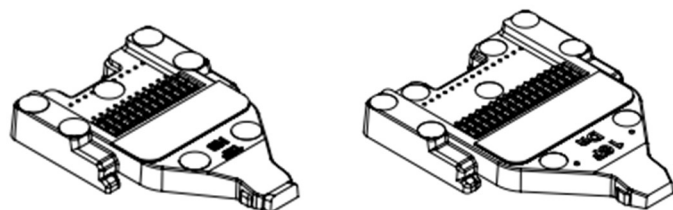


3M™ Expanded Beam Optical (EBO) Ferrule 12F/16F



Product Description

The 3M™ Expanded Beam Optical (EBO) ferrule technology has revolutionized optical interconnect. It combines the dust resistance and debris insensitivity of expanded beam optical transmission with an integrated, parallel-aligned design that virtually eliminates time related to cleaning and inspection. 3M™ Expanded Beam Optical (EBO) Ferrule is available in 12 fibers and 16 fibers with single mode and multimode options. Conventional multi-fiber connectors depend on physical contact between fibers, which can be susceptible to contamination from dust and debris. 3M Expanded Beam Optical ferrule technology collimates and expands the beam, so small particles are much less likely to interfere with the signal. The beam then travels without physical contact between parallel-aligned ferrules, achieving critical mating alignment for reliable signal transfer without the potential variances associated with holes and pins. Genderless ferrule geometry allows for integration in applications throughout the data center, simplifying ordering and inventory. 3M™ Expanded Beam Optical (EBO) ferrules are compatible with loose tube and ribbon termination.

Ferrule options:

- 3M™ EBO 12 fiber (12F) single mode ferrule
- 3M™ EBO 12 fiber (12F) multimode ferrule
- 3M™ EBO 16 fiber (16F) single mode ferrule
- 3M™ EBO 16 fiber (16F) multimode ferrule

Key Features

- Genderless geometry simplifies system design, eliminates the need for separate male and female connectors
- Collimating lenses enhance dust resistance and debris insensitivity
- Parallel-aligned ferrules allow for reliable mating without pins or holes
- Floating ferrule design provides low mating force (< 1 N) to help minimize installation time
- For use in GR-1435 compliant connectors

Product Construction

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Expanded Beam Optical Ferrule 12F/16F	
Property	Value
Number of optical fibers	12 or 16
Type of optical fiber	Single mode or multimode, 125 µm diameter cladding
Materials	Optical grade polymer

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Applications

- Data center multi-fiber optical interconnect
- Multi-fiber trunks, patch cord and fanout assemblies
- Multi-fiber pluggable transceiver interface
- Multi-fiber interconnect for test and measurement

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Expanded Beam Optical Ferrule 12F/16F				
Property	12 fiber Single mode	12 fiber Multimode	16 fiber Single mode	16 fiber Multimode
Property	Single mode	Multimode	Single mode	Multimode
Operating wavelength	1310 nm	850 nm	1310 nm	850 nm
Random Mated Attenuation (≥97%)	≤0.7 dB	≤0.3 dB	≤0.75 dB	≤0.3 dB
Return loss	≥55 dB	≥35 dB	≥55 dB	≥35 dB
Operating temperature range	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C	-10°C to +60°C

Certificate of Conformance

The 3M Certificate of Conformance for this product is established when the product is manufactured and deemed commercially available from 3M. Contact your local 3M representative for this product's CoC.

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Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your 3M representative.

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