fiberguide industries
THE FIBER OPTIC SOLUTIONS COMPANY
A HALMA COMPANY

Collimators & Focus Guides

Fiberguide's Collimators and Focus Guides are for use in a wide variety of optical systems. These ruggedized modules are designed to collimate or focus light exiting an optical fiber to a desired beam diameter or spot size a specific distance away. Collimators and Focus Guides are used with laser diodes, photodiodes, acoustic-optic modulators and other fiber optic devices where a specific output is needed.

STANDARD SPECIFICATIONS

- Collimator Focal Lengths: Micro (10mm), Mid-Size (18mm), Macro (38mm)
- Focus Guide Focal Lengths: Mid-Size (18mm, 25mm, 38mm), Macro (38mm, 51mm, 76mm)
- Fiber Type: Single Mode, Multimode
- Core Sizes: Micro up to 400µm; Mid-Sized: 400µm - 800µm; Macro: 800µm - 1000µm
- Wavelengths: UV - IR: 190nm - 2400nm
- Numerical Aperture (NA): 0.12, 0.22, 0.26, 0.37
- Lens Materials: BK-7, Silica
- Connector Options: SMA905, FC, ST
- Standard Temperature Range: -40°C to +100°C / -40°F to +212°F

Applications:

- Free Space Coupling
- Process Sampling
- Astronomy
- Metrology
- Quantum Optics
- Imaging

Headquarters & Fiber Manufacturing
1 Bay Street, Stirling, New Jersey 07980
Phone: (908) 647-6601

Assembly & Manufacturing Facility
3409 E. Linden St., Caldwell, Idaho 83605
Phone: (208) 454-1988

Contact Us
Email: info@fiberguide.com
www.fiberguide.com

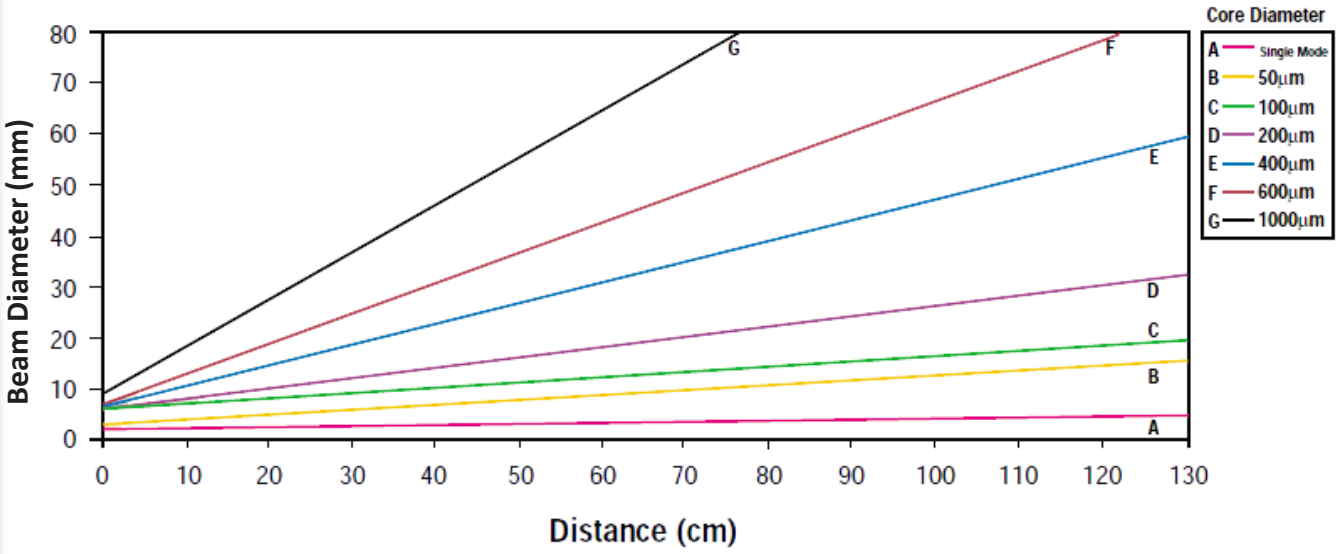
Collimators & Focus Guides

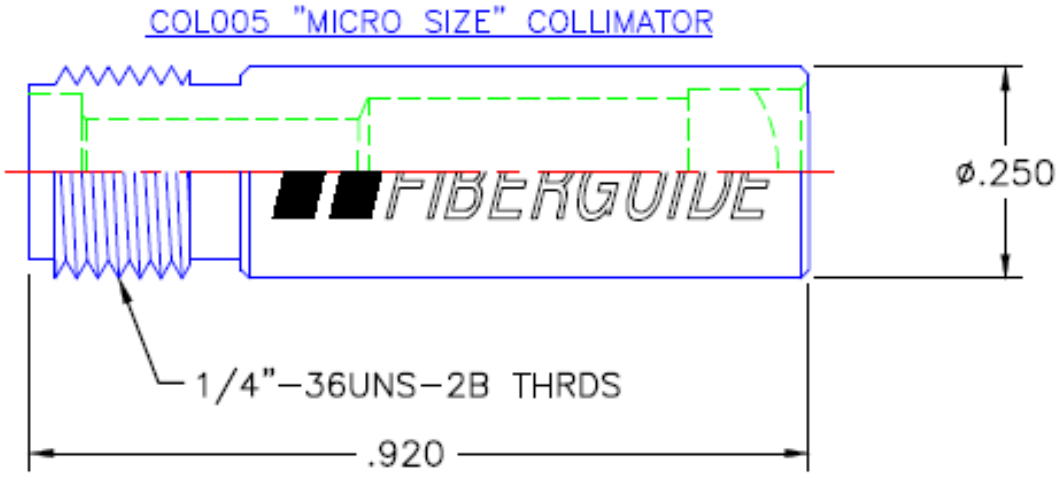
SPECIFICATIONS:
MICRO COLLIMATOR
Length: 23.37mm (0.92")
Outside Diameter: 6.35mm (0.250")
Material: Stainless Steel

Note: Collimator Divergence (milliradians) = Fiber Diameter (µ) / 10mm (Lens Focal Length)

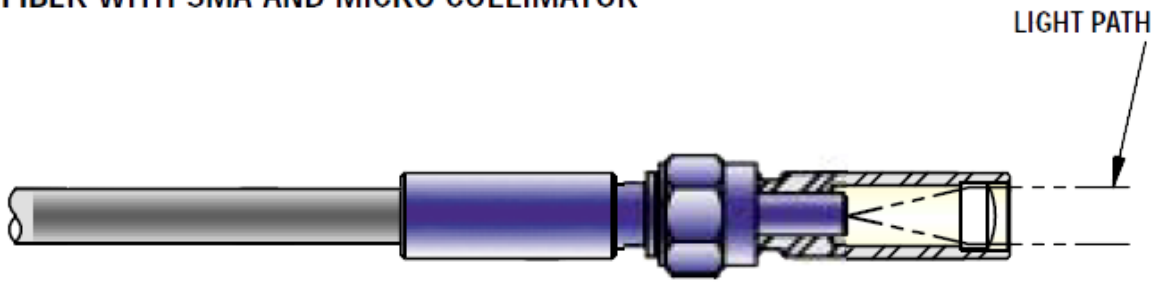
For use with Fibers with up to 400µm Cores

Micro Collimator - COL005B0101 & COL005S0101
5mm Lens Diameter. NA of the fiber = 0.22





FIBER WITH SMA AND MICRO COLLIMATOR



Collimators & Focus Guides

SPECIFICATIONS:

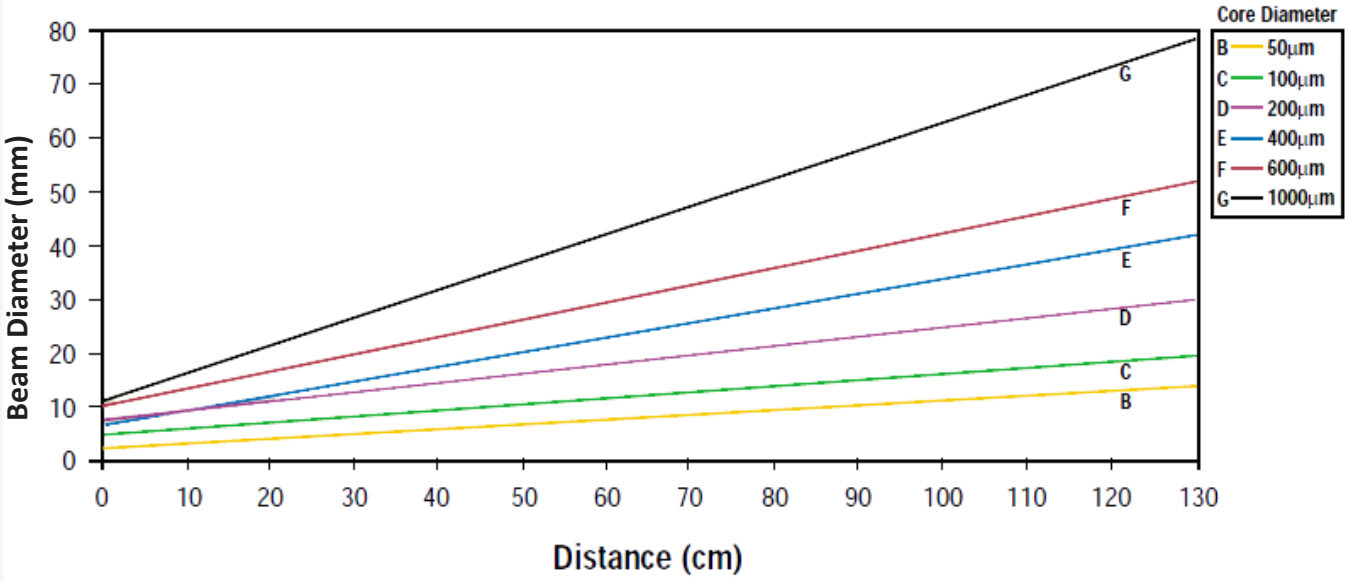
MID-SIZE COLLIMATOR
Length: 34.29mm (1.35")
Outside Diameter: 15.88mm (0.625")
Material: Anodized Aluminum

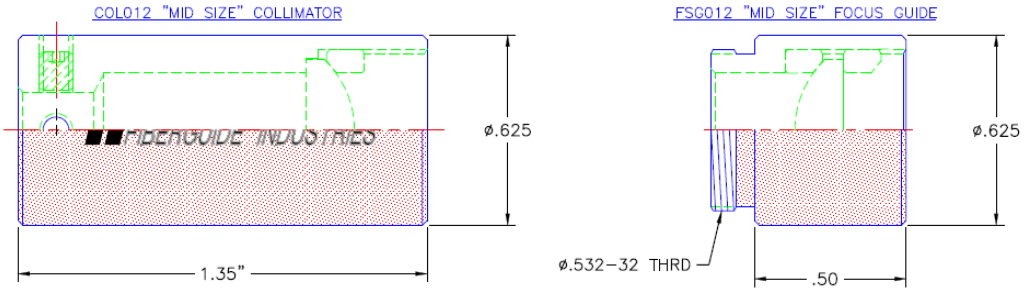
MID-SIZE FOCUS GUIDE
Length: 16.38mm
Outside Diameter: 15.88mm
Material: Anodized Aluminum

Note: Collimator Divergence (milliradians) = Fiber Diameter (µ) / 18mm (Lens Focal Length)

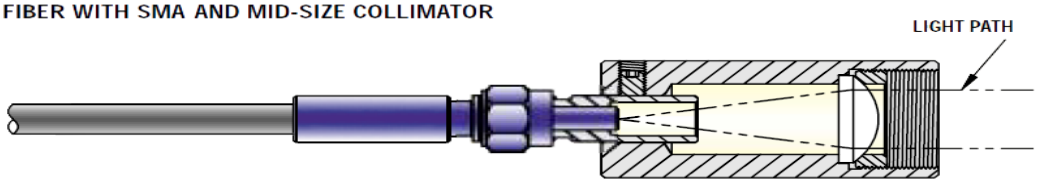
For use with Fibers with 400µm - 800µm Cores

Mid-Size Collimator - COL012B0181 & COL012S0181
12mm Lens Diameter. NA of the fiber = 0.22

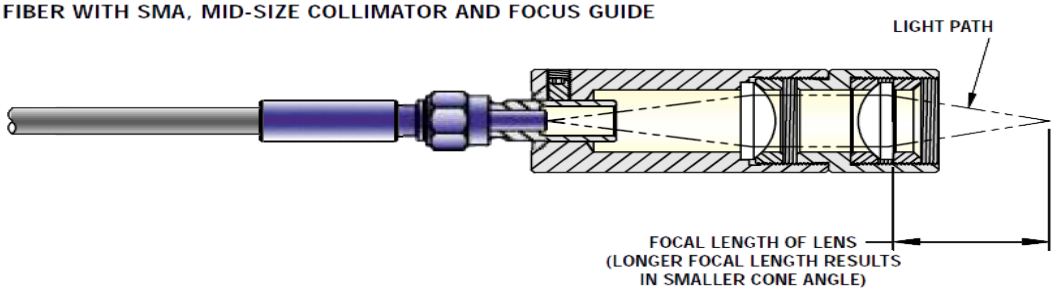




FIBER WITH SMA AND MID-SIZE COLLIMATOR



FIBER WITH SMA, MID-SIZE COLLIMATOR AND FOCUS GUIDE



Collimators & Focus Guides

SPECIFICATIONS:

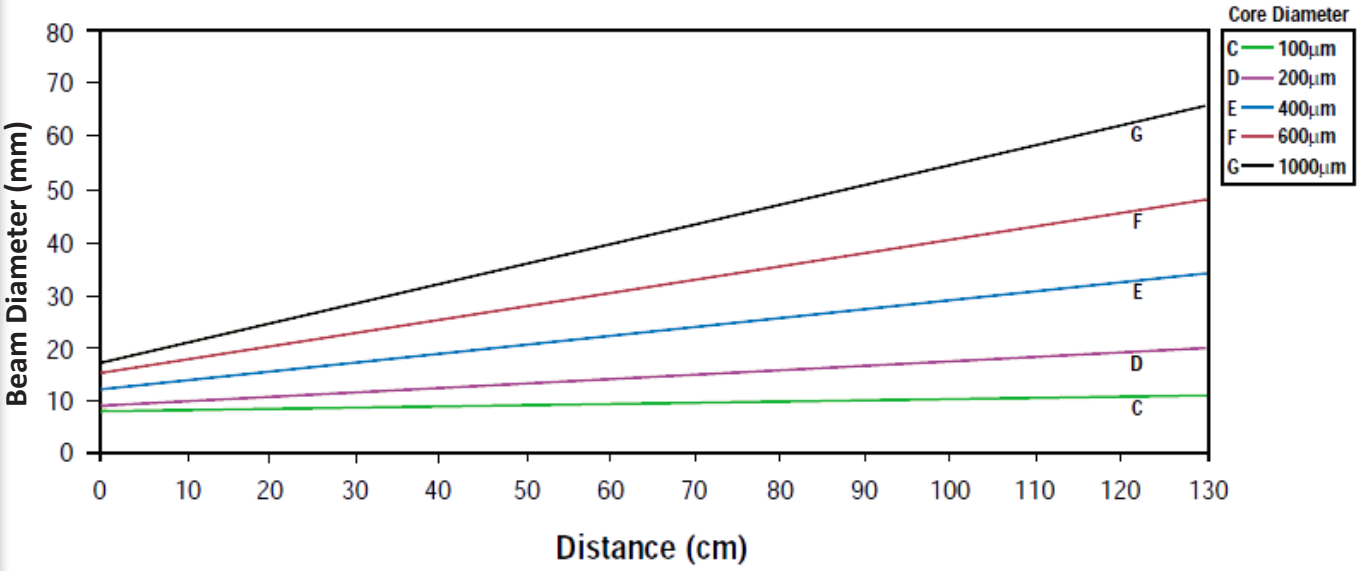
MACRO COLLIMATOR
Length: 52.83mm
Outside Diameter: 28.58mm
Material: Anodized Aluminum

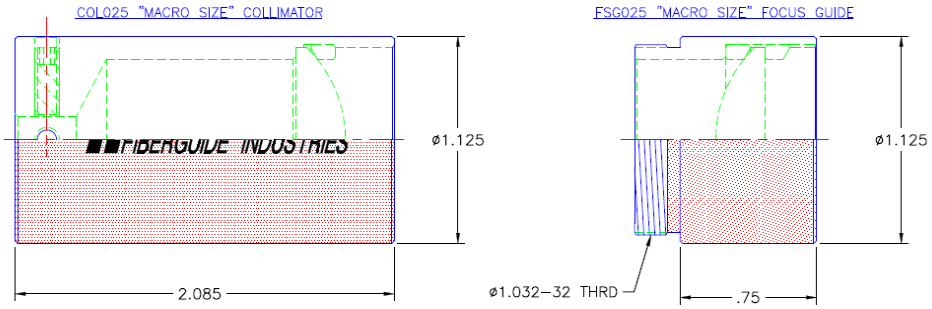
MACRO FOCUS GUIDE
Length: 25.4mm
Outside Diameter: 28.58mm
Material: Anodized Aluminum

Note: Collimator Divergence (milliradians) = Fiber Diameter (µ) / 38mm (Lens Focal Length)

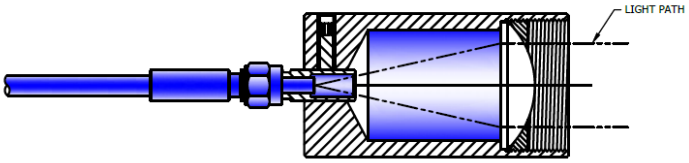
For use with Fibers with 800µm - 1000µm Cores

Macro Collimator - COL025B0381 & COL025S0381
25mm Lens Diameter, NA of the fiber = 0.22

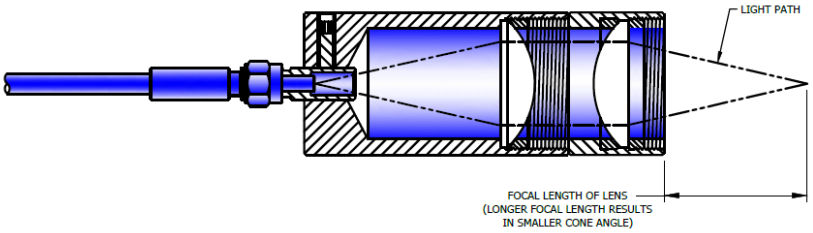




FIBER WITH SMA AND MACRO SIZE COLLIMATOR



FIBER WITH SMA, MACRO SIZE COLLIMATOR AND FOCUS GUIDE



Collimators & Focus Guides

Part Number	Function	Lens	Focal Length
Micro			
COL005B0101	Collimator	BK-7	10mm
COL005S0101	Collimator	Silica	10mm
Mid-Size			
COL012B0181	Collimator	BK-7	18mm
FSG012B0180	Focus Guide	BK-7	18mm
FSG012B0250	Focus Guide	BK-7	25mm
FSG012B0380	Focus Guide	BK-7	38mm
COL012S0181	Collimator	Silica	18mm
FSG012S0180	Focus Guide	Silica	18mm
FSG012S0250	Focus Guide	Silica	25mm
FSG012S0380	Focus Guide	Silica	38mm
Macro			
COL025B0381	Collimator	BK-7	38mm
FSG025B0380	Focus Guide	BK-7	38mm
FSG025B0510	Focus Guide	BK-7	51mm
FSG025B0760	Focus Guide	BK-7	76mm
COL025S0381	Collimator	Silica	38mm
FSG025S0380	Focus Guide	Silica	38mm
FSG025S0510	Focus Guide	Silica	51mm
FSG025S0760	Focus Guide	Silica	76mm

Note: Collimator Beam Diameter: The beam diameter of a collimated beam is given by the following formula:

$D_b = 2*f*NA$ where

D_b = Beam Diameter in Millimeters
f = Lens Focal Length in Millimeters
NA = Fiber Numerical Aperature