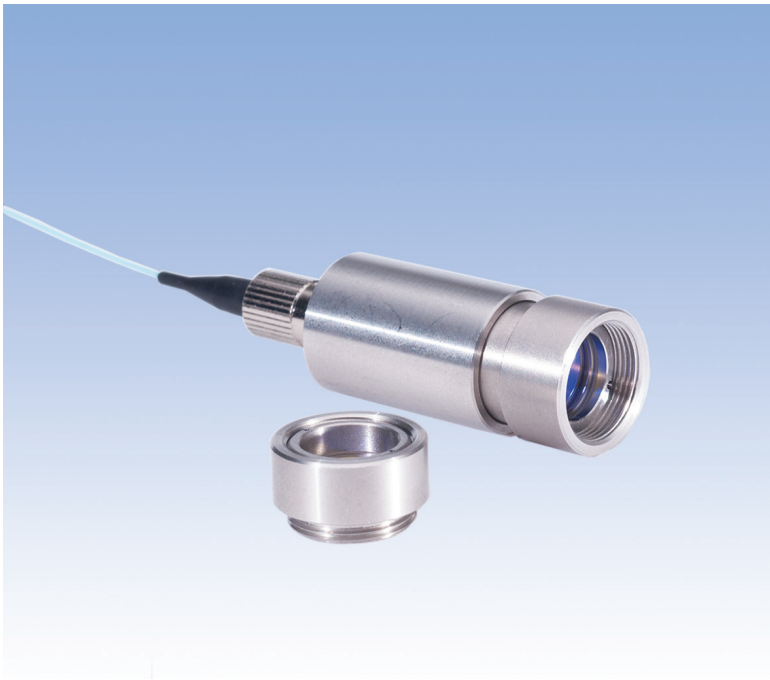


# Fiber Focusers

## with Diffraction Limited Spots

*New!*



### *Features*

- Air spaced design
- Low wavefront error
- No epoxy in the optical path
- Long working distance
- Precision aligned optics
- FC, FC/APC, or pigtailed
- Stainless steel housing

### *Applications*

- Probing hazard environments
- Sensing
- Confocal instrumentation
- Flow cytometry
- Genetic sequencing
- Particle analyzers
- Micro array scanners
- Direct write systems
- Materials processing and analysis

The Fiber Focuser is designed to generate micron spot sizes at long working distance. It is a multi-element air spaced design that is optimized to work with singlemode fibers, polarization maintaining (PM) fibers and large mode area (LMA) fibers.

The Fiber Focuser incorporates a Focusing Cell that provides diffraction limited spot sizes at long distances. Focusing Cells screw onto the main collimator to provide a convenient, self aligned way to define your focused spot. This eliminates additional optics holders and alignment labor.

The Fiber Focuser provides a very cost effective solution versus using additional hardware for a lens, the lens or microscope objective. This is especially true in the near UV and NIR regions.

All optical materials are chosen to eliminate or minimize

any fluorescence generated by some optics when used by lasers, especially visible lasers. An all stainless steel housing construction minimizes any temperature effects. The Fiber Focuser is available with an FC or FC/APC receptacle with pigtailed versions as an option.

Custom Fiber Focusers can be designed to include other optics such as cylindrical optics for lines, polarizers, beam splitters or detectors. Other options include titanium housing, mounting requirements, special wavelength ranges and environmental concerns. Diode lasers can also be supplied for a complete system

We design, manufacture and assemble all parts in-house to give you the right focuser for the job.

# Fiber Focusers

## Specifications

Wavelength range:	350 nm - 1700 nm
Aperture:	10 mm
Housing material:	Stainless steel
Receptacle:	FC, FC/APC or pigtailed

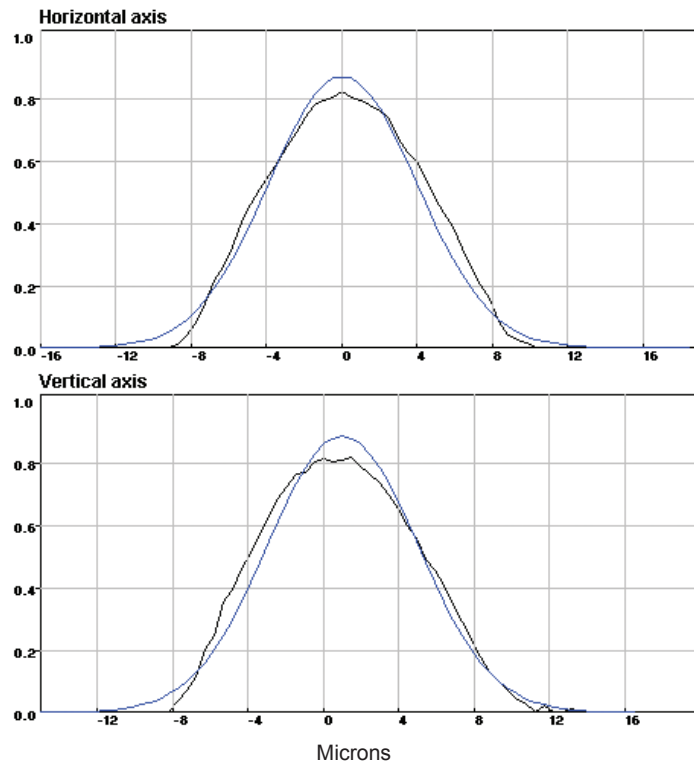
Please call or email on your desired spot size and working distance.

Example spot sizes:

Using lens with 50.2 mm focal length: ~8  $\mu\text{m}$  spot

Using lens with 100 mm focal length: ~16  $\mu\text{m}$  spot

These were obtained using singlemode fiber. Multimode fiber will give much larger spot sizes. Please call or email for more information.



Beam profile of ~16  $\mu\text{m}$  spot at 100 mm distance.

Specifications subject to change without notice.

## Ordering Information

Choose a collimator and then a Focusing Cell

Collimators with FC receptacle	
FC10-VIS1-FC	Usable from 350 - 640 nm
FC10-NIR1-FC	Usable from 600 - 1000 nm
FC10-NIR2-FC	Usable from 1000 - 1700 nm
Collimators with FC/APC receptacle	
FC10-VIS1-APC	Usable from 350 - 640 nm
FC10-NIR1-APC	Usable from 600 - 1000 nm
FC10-NIR2-APC	Usable from 1000 - 1700 nm

Focusing Cell Model #			
		Focal length (mm)	Working distance (mm)
		12.5	5.5
		18	11
	VIS1 -	25.4	18
FL10 -	NIR1 -	40	33
	NIR2 -	50.2	43
		100	93
		150	143

Example Focusing Cell model number:

FL10-NIR1-18

We carry a range of optical fibers for use at any wavelength. Other focal lengths of the Focusing Cell available for OEM users. We manufacture many of our own optics.

