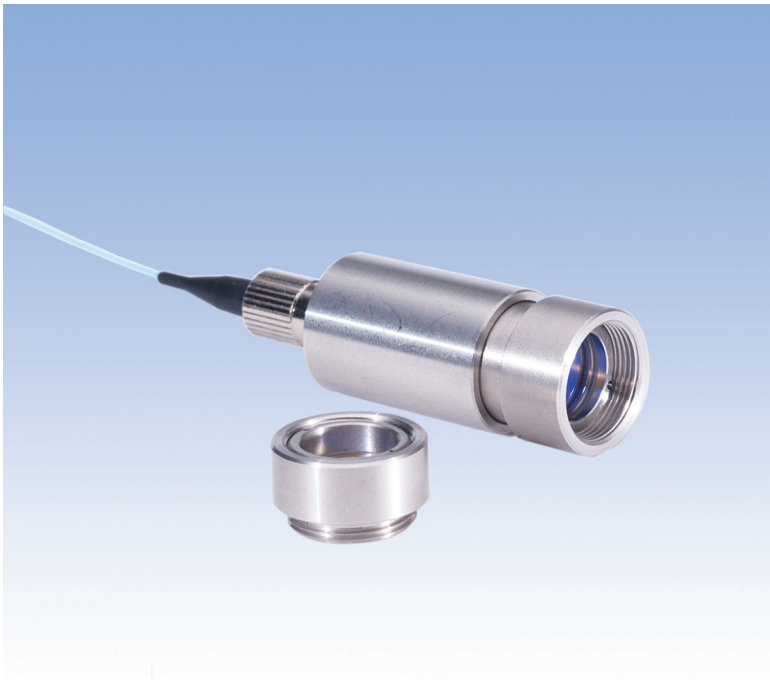


Fiber Focusers

with Diffraction Limited Spots



Features

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

Applications

- Probing hazardous environments
- Probing camera array pixels
- 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 type 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.

The Fiber Focuser provides a very cost effective solution, especially in the near UV and NIR regions. It eliminates additional optics holders and alignment labor in your instrument. All optical materials are chosen to eliminate or minimize any fluorescence generated by some optics when used by lasers in the near UV or visible region.

An all stainless steel housing construction minimizes any temperature effects. The Fiber Focuser is available with an

FC or FC/APC receptacle as standard.

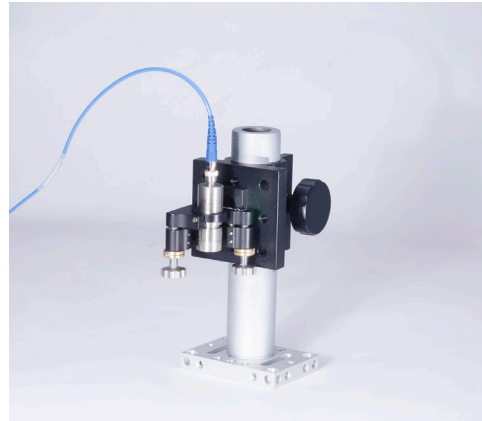
Custom Fiber Focusers can be designed to include other optics such as cylindrical optics for lines, polarizers or any other optical devices. Other options include mounting requirements, special wavelength ranges and environmental concerns. Diode lasers can also be supplied for a complete system

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

Fiber Focusers

Specifications

| | |
|-------------------|----------------------------|
| | FC10 Fiber Focuser |
| Wavelength: | Any from 350 nm to 1700 nm |
| Aperture: | 11.9 mm |
| Housing material: | Stainless steel |
| Receptacle: | FC, FC/APC or pigtailed |



FC10 with FL10 mounted in ring mount and installed on an optical mount.

Ordering Information

The Fiber Focuser consist of a fiber collimator and a Focusing Cell. The Fiber Collimator needs to be collimated for the wavelength you are using before mounting the 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 # and data (measured at 635 nm) | | | | | | |
|---|--------|-----|-------------------|------------------------------|---|-----------------------|
| Model # | | | Focal length (mm) | Spot size (singlemode fiber) | Spot size (multimode fiber, 50 μ m / 100 μ m) | Working distance (mm) |
| | | 18 | 18 | - | ~38 μ m / ~70 μ m | 11 |
| | VIS1 - | 32 | 32 | ~ core size | ~50 μ m / ~100 μ m | 25 |
| FL10 - | NIR1 - | 40 | 40 | ~6.6 μ m | ~62 μ m / ~125 μ m | 33 |
| | NIR2 - | 50 | 50.2 | ~8 μ m | ~78 μ m / ~156 μ m | 43 |
| | | 100 | 100 | ~16 μ m | ~156 μ m / ~312 μ m | 93 |
| | | 150 | 150 | ~23 μ m | ~234 μ m / ~469 μ m | 143 |

Example of Focusing Cell model number: FL10-NIR1-50

One Fiber Collimator and one Focusing Cell must be ordered to make a Fiber Focuser.

Please call or email for desired spot size or distance to spot. We carry a range of optical fibers for use at any wavelength. For other optics such as polarizers or line generators, please call or email.

All Fiber Collimators and Focusing Cells are manufactured in our facility in California, USA

Specifications subject to change without notice.