

# Large Fiber Collimators



## Features

- Usable from 350nm to 2300nm
- 49 and 96 mm apertures
- Adjustable focus
- No epoxy in the optical path
- No fluorescence
- Low wavefront error
- Singlemode, PM or large mode area fibers
- FC, FC/APC or pigtailed

## Applications

- Free space communications
- Lidar, ranging
- Interferometry
- Remote sensing

For those wanting BIG BEAMS, we have our High Performance Large Fiber Collimators, FC40, FC45 and FC100. They are of a multi-element design that gives a highly collimated, clean Gaussian beam with low wavefront error.

All optics are AR coated to give high transmission. To accommodate all the different wavelengths that are now available, the focus is adjustable and linear with no rotation. Once you have adjusted for your wavelength you can lock it down. There is a second lock down mechanism for use against vibrations.

Body is made of stainless steel to minimize any thermal effects. Back end has an FC or FC/APC receptacle. Options

for a pigtailed version is also available.

A sturdy mount, made of stainless steel, has threaded holes to mount the collimators to stages, tables and tripods.



FC40 and FC45 mount.

# Large Fiber Collimators

## Specifications

	FC40	FC45	FC100
Aperture:	49 mm	49 mm	96.5 mm
Beam size*:	23 mm	33 mm	46 mm
Beam divergence:	<0.067 mrad	< 0.05 mrad	<0.03 mrad
Wavefront error, over 1/e <sup>2</sup> points rms:	<1/10 wave	< 1/10 wave	1/4 wave
Receptacle:	FC or FC/APC	FC or FC/APC	FC or FC/APC
Collimation:	Adjustable with no rotation	Adjustable with no rotation	Adjustable with no rotation
Locking:	yes	yes	yes
Housing material:	Stainless Steel	Stainless Steel	Stainless Steel
Weight:	0.83 kg (1.83 lb)	1.12 kg (2.46 lb.)	

\*measured at 1/e<sup>2</sup> points, using fiber with NA = 0.13 fiber at 635 nm

## Ordering Information

Model #	Description
FC40-λ-FC	49 mm aperture, FC receptacle
FC40-λ-APC	49 mm aperture, FC/APC receptacle
FC45-λ-FC	49 mm aperture, FC receptacle
FC45-λ-APC	49 mm aperture, FC/APC receptacle
FC100-λ-FC	96.5 mm aperture, FC receptacle
FC100-λ-APC	96.5 mm aperture, FC/APC receptacle
<b>Accessories</b>	
MT1.75SS	FC40 and FC45 mount for use on tables, stages or tripods
MT4.5SS	FC100 mount for use on tables, stages or tripods.
Tripod	Tripod

Use -VIS1 for  $\lambda = 350\text{nm}$  to  $600\text{nm}$   
 Use -NIR1 for  $\lambda = 600\text{nm}$  to  $1000\text{nm}$   
 Use -NIR2 for  $\lambda = 1000\text{nm}$  to  $1700\text{nm}$   
 Use -SWIR for  $\lambda = 1500\text{nm}$  to  $2300\text{nm}$

Specifications subject to change without notice.

## Typical interferograms at 50% of aperture for FC45.

