

FIBER-OPTIC LASER COUPLER

LC-1 Series

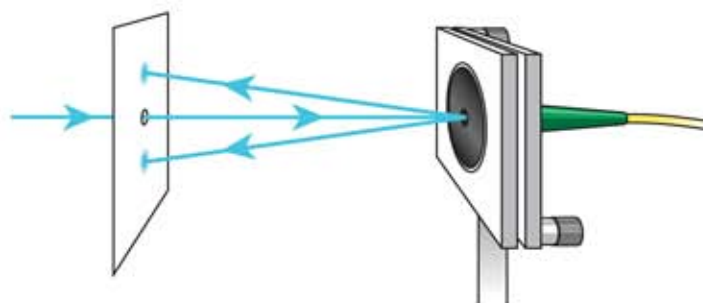


FEATURES

- Couples free-space laser beam into fiber
- Easy to align with built-in alignment aid
- Operation available from 350 to 1700 nm

The **LC-1 Series Fiber-Optic Input Coupler** is a convenient way to launch a free-space laser beam into an optical fiber. A laser beam in fiber can be used with instruments that employ fiber-optic input, such as the wavelength meters and spectrum analyzers provided by Bristol Instruments.

The LC-1 Fiber-Optic Input Coupler is a small assembly with a 1"-diameter mounting disk attached to 3 meters (2 meters for UV version) of 9 μ m core-diameter fiber that is terminated with an FC/UPC connector. It includes built-in alignment optics that provide two slightly off-axis back reflections to facilitate alignment. With the LC-1 installed in a standard $\Theta - \Phi$ optical mount, alignment is achieved by centering the laser beam on the input aperture, and then adjusting the mount so that the two back reflections straddle the input beam symmetrically, as shown. Coupling efficiency is typically 25 percent, with a range of 5 to 35 percent over the entire wavelength range.



SPECIFICATIONS

Wavelength Range	VIS: 400 – 1100 nm
	NIR: 500 – 1700 nm
	UV: 350 – 1100 nm
Input Coupling Efficiency	5 – 35% with TEM ₀₀ collimated beam (wavelength dependent)
Aperture	2.5 mm
Mounting Disk Diameter	1" (25.4 mm)
Optical Mount Required	2-axis angular ($\Theta - \Phi$)
Optical Fiber	3 meters (2 meters for UV) 9 μ m core diameter terminated with FC/UPC connector



ORDERING INFORMATION

Model

LC-1-VIS	Input Coupler (400-1100 nm)
LC-1-NIR	Input Coupler (500-1700 nm)
LC-1-UV	Input Coupler (350-1100 nm)

Accessories

LC-MK	Basic Mounting Kit
LC-TPM	$\Theta - \Phi$ Mount
PC-3	Fiber-Optic Patchcord
FC-MS	FC to FC Mating Sleeve



The Power of Precision

585-924-2620

www.bristol-inst.com

info@bristol-inst.com