



Fiber Beam Focuser

I&Optics' fiber beam focuser can focus a divergent beam from input fiber into a spot beam with certain waist diameter. It features high transmission ratio, high power handling capability and excellent beam quality due to our unique technology. It can be used in lasers, industry, medical instruments, testing systems and R&D.

Specification

Parameter	Test Condition	Unit	Value
Nominal Center Wavelength	-	nm	633, 850, 980, 1060, 1310, 1550, 2000 or Specify
Wavelength Range	-	nm	+/-20 for 633/850/ 980/1060nm, others +/-50
Min. Transmission Ratio	at Center Wavelength	%	95, Typ. 97 for 2000nm, others 97, Typ. 99
Nominal Working Distance	from Output Surface to Beam Waist	mm	2, 3, 5, 10, 20 or Specify
Nominal Beam Diameter	at Beam Waist ($1/e^2$)	um	5, 8, 10, 20, 30, 50 or Specify
Max. Beam Pointing Accuracy	with Respect to Body	mrad	5
Min. Extinction Ratio	at 25°C, Input to Output, only for PM Fiber	dB	23, Typ. 25 (SC Single Mode Fiber), 16, Typ. 18 (DC or LMA Fiber, Measurement Limited)
Min. Return Loss	at Center Wavelength	dB	50
Max. Power Handling Rate	Continuous Wave	W	0.3, 1, 3, 5, 10, 20 or Specify
Fiber Type	-	-	Single Mode Fiber or LMA Fiber or Specify
Max. Fiber Tensile Load	-	N	5
Operating Temperature	-	°C	-5 to 70
Storage Temperature	-	°C	-40 to 85

Above values are for device without connectors. For device with connector, IL will be 0.3dB higher (0.5dB for 633/850nm), return loss will 5dB lower and handling power is only 1W (0.5W for 633/850nm).

The default alignment of working polarization and connector key are aligned to slow axis of fiber.

Package Dimensions

Detailed Informations And Dimensions Please Contact Us. Customized Design Is Available Upon Request.

Ordering Informations

FBF-①-②-③-④-⑤-⑥-⑦-⑧

① - Center Wavelength

63 - 633nm

85 - 850nm

98 - 980nm

06 - 1060nm

31 - 1310nm

55 - 1550nm

20 - 2000nm

SS - Specify

② - Working Distance

02 - 2mm

03 - 0.3mm

05 - 5mm

10 - 10mm

20 - 20mm

③ - Waist Beam Diameter

05 - 5um

08 - 8um

10 - 10um

20 - 20um

30 - 30um

50 - 50um

④ - Power Rate

0T - 0.3W

01 - 1W

10 - 10W

20 - 20W

⑤ - Fiber Type

1 - SM 650 Fiber

2 - PM 630 Panda Fiber

3 - Hi 780 Fiber

4 - PM 850 Panda Fiber

5 - Hi 1060 Fiber

6 - PM 980 Panda Fiber

7 - SMF-28e Fiber

8 - PM 1310 Panda Fiber

9 - PM 1550 Panda Fiber

⑥ - Connector Type

1 - FC/UPC

2 - FC/APC

3 - SC/UPC

4 - SC/APC

⑦ - Fiber Jacket

B - Bare Fiber

L - 900um Loose Tube

3 - 3mm Amoured Cable

6 - 6mm Amoured Cable

⑧ - Fiber Length

0.8 - 0.8m