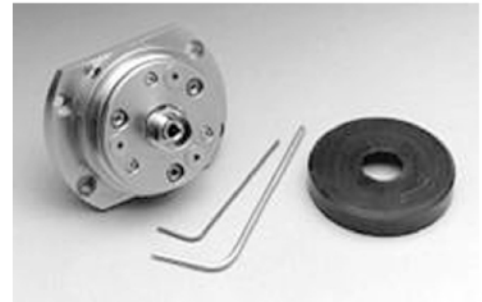


The FiberPort is an ultra-stable, miniature micropositioner, enabling active alignment of an AR-coated aspheric lens for collimating or for free beam-to-fiber coupling. FiberPorts serve both input and output functions, and are micro-positionable in six degrees of freedom: 3 linear (x, y, z) 2 angular (azimuth, elevation) 1 rotational (for PM fiber alignment). While performing the same functions as large benchtop 5-axis positioners, the compact size of the Fiber-Port makes it ideally suited for incorporating into shippable OEM equipment, as well as for utility in the development laboratory. A major application for the FiberPort among many laser manufacturers is as the laser interface to an output fiber pigtail.



Fiber Type	FiberPort	Receptacle	Description
SM or PM	X-Version	FC	For FC connectorized fiber
SM or PM	H-Version	none	Non-detachable pigtail
MM	XM-Version	FC	For FC connectorized fiber 50 μ m, 62.5 μ m, 100 μ m
MM	SMA-Version	SMA	For SMA connectorized fiber 50 - 600 μ m

Single-Mode FiberPorts for SM and PM Fiber with FC Connector

Catalog Number	Effective Focal Length	Coupling Input Beam Diameter	Collimated Output Beam Diameter	Best Collimation Distance at	Connector Compatibility
PAF-X-2- λ	2.0 mm	0.3 - 0.8 mm	0.5 mm	1 - 20 cm	All FC
PAF-X-5- λ	4.6 mm	0.8 - 1.4 mm	1.0 mm	10 cm & beyond	All FC
PAF-X-7- λ	7.5 mm	1.2 - 2.0 mm	1.6 mm	20 cm & beyond	All FC
PAF-X-11- λ	11.0 mm	1.9 - 3.0 mm	2.4 mm	20 cm & beyond	FC/APC
PAF-X-11- λ -PC	11.0 mm	1.9 - 3.0 mm	2.4 mm	20 cm & beyond	FC/PC
PAF-X-15- λ	15.4 mm	2.8 - 4.0 mm	3.4 mm	30 cm & beyond	FC/APC
PAF-X-15- λ -PC	15.4 mm	2.8 - 4.0 mm	3.4 mm	30 cm & beyond	FC/PC
PAF-X-18- λ	18.0 mm	3.4 - 4.7 mm	4.0 mm	30 cm & beyond	FC/APC
PAF-X-18- λ -PC	18.0 mm	3.4 - 4.7 mm	4.0 mm	30 cm & beyond	FC/PC

NOTE : PAF-X-2, -5 and -7 FiberPorts have a straight FC bulkhead which will work with FC/PC and FC/APC connectors.

The PAF-X-11 and PAF-X-15 come with either PC or APC compatible bulkheads. Please specify which type of connector you will be using when ordering a PAF-X-11 or PAF-X-15 FiberPort.

Ex. To couple a collimated 1mm diameter 633 nm beam into a FC/APC connectorized SM fiber use: PAF-X-5-633.

Ex. To couple a collimated 2.5 mm diameter 1550 nm beam into a FC/PC connectorized SM fiber use: PAF-X-11-1550-PC.

λ : Specify wavelength in nm.

FiberPorts with Permanent Pigtailed SM and PM Fiber

Catalog Number	Effective Focal Length	Coupling Input Beam Diameter	Collimated Output Beam Diameter	Best Collimation Distance at
PAF-H-(S or P)-2- λ	2.0 mm	0.3 - 0.8 mm	0.5 mm	1 - 20 cm
PAF-H-(S or P)-5- λ	4.6 mm	0.8 - 1.4 mm	1.0 mm	10 cm & beyond
PAF-H-(S or P)-7- λ	7.5 mm	1.2 - 2.0 mm	1.6 mm	20 cm & beyond
PAF-H-(S or P)-11- λ	11.0 mm	1.9 - 3.0 mm	2.4 mm	20 cm & beyond

λ : Specify wavelength in nm.

S or P : When ordering, specify Single-mode (S) or Polarization Maintaining (P) pigtail (1 meter long)

NOTE : For coupling into PM fiber, a FiberBench solution is recommended.

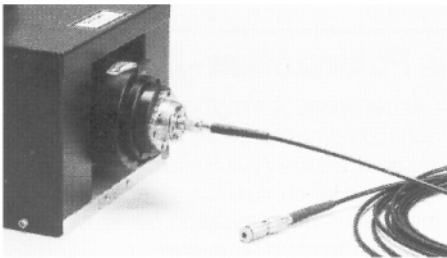
FiberPorts for MM Fiber with FC or SMA Connector

Catalog Number	Receptacle	Effective Focal Length	FiberPort NA	Collimated Output Beam Diameter
PAF-XM-5- λ	FC*	4.6 mm	0.4	2.0 mm
PAF-XM-7- λ	FC*	7.5 mm	0.33	3.4 mm
PAF-XM-11- λ	FC*	11.0 mm	0.24	4.9 mm
PAF-SMA-5- λ	SMA**	4.6 mm	0.4	2.0 mm
PAF-SMA-7- λ	SMA**	7.5 mm	0.33	3.4 mm
PAF-SMA-11- λ	SMA**	11.0 mm	0.24	4.9 mm

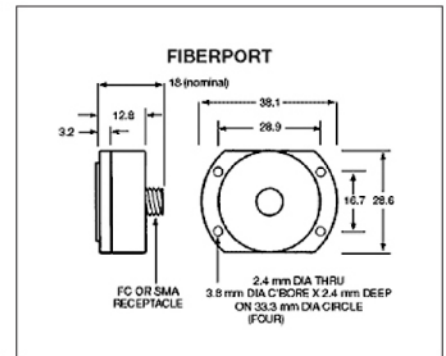
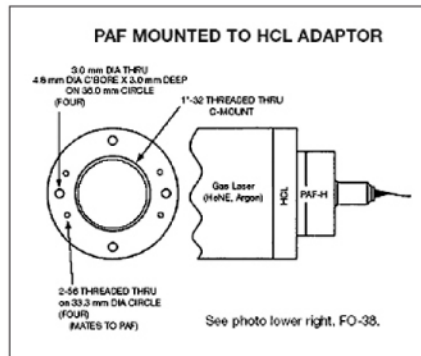
λ : Specify wavelength in nm.

*Optional FiberCables, with FC connector, are ordered separately for 50, 63, 100 μm core diameter.

**Optional FiberCables, with SMA connector, are ordered separately for 50, 63, 100-600 μm .



FiberPort on HCL Mounting Adaptor.
Shown with Beam Delivery System.

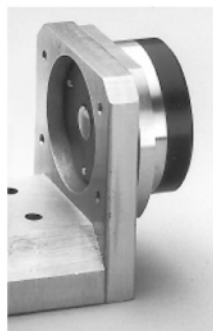


MirrorPorts (Retrace Systems)

MirrorPorts (Retrace Systems)

The MirrorPort contains a dielectric coated Mirror with >99% reflection. The same precision mechanism used in the FiberPorts and LaserPorts allows ultra fine adjustment of the MirrorPort to assure optimum reverse coupling of the laser beam back into the fiber.

Note that MirrorPorts are interchangeable, so that other wavelengths can be easily accommodated. MirrorPorts can be assembled as an orthoconjugate retroreflector (Faraday Rotator Mirror).



MirrorPort mounted on
FiberBench wall plate

Standard	Long Path Length	Spectrum
FMB-VIS	FMB-LM-VIS	450 - 700 nm
FMB-NIR	FMB-LM-NIR	700 - 950 nm
FMB-YAG	FMB-LM-YAG	950 - 1150 nm
FMB-IR1	FMB-LM-IR1	1280 - 1340 nm
FMB-IR2	FMB-LM-IR2	1530 - 1570 nm
FMB-AL	FMB-LM-AL	Aluminum
FMB-AU	FMB-LM-AU	Gold