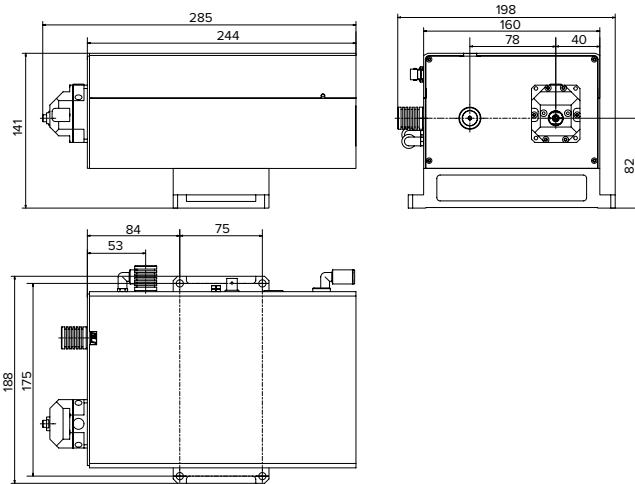


Fiber couplers



FCHE stand-alone fiber coupler

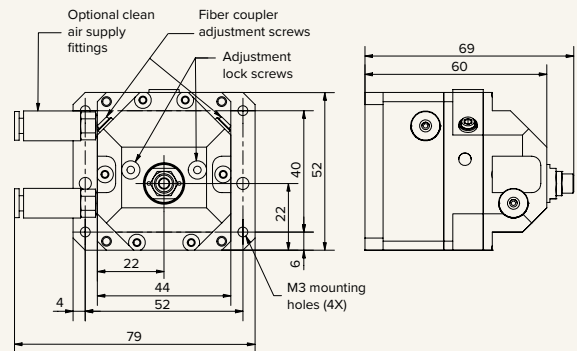


Outline drawings of FCHE fiber coupler (dimensions in mm)

FEATURES

- Fiber coupling of Nd:YAG, Nd:YLF lasers or OPO's radiation
- Up to **40 mJ** input pulse energy at fundamental laser wavelength
- Wavelength range **260–1700 nm** (210–2100 nm by request)
- Four different sets of optics optimized for **UV, VIS** or **IR** wavelength
- Attachable to laser output panel or stand-alone versions
- Optional built-in motorized attenuator for stand-alone version
- Optional air purging for improved lifetime of fiber coupler optics

Fiber coupling allows the laser beam to be safely guided from the laser output to the desired location, extending the range of possible applications. As with any fiber coupling solution, this approach involves certain trade-offs, including increased system cost, reduced maximum pulse energy and lower beam focusability.



Outline drawings of FC fiber coupler (dimensions in mm)

SPECIFICATIONS ¹⁾

Model	Attachable fiber coupler				Stand-alone fiber coupler	
	-FC/UV	-FC/VIS	-FC/NIR	-FC/IR	-FCHE/VIS	-FCHE/NIR
Wavelength range ²⁾	260–400 nm	400–700 nm	700–1100 nm	1100–1700 nm	400–700 nm	700–1100 nm
Pulse energy	up to 3 mJ	up to 5 mJ	up to 10 mJ		20 mJ	40 mJ
Fiber length ³⁾	2 m				2 m	
Fiber numerical aperture	0.22				0.22	
Fiber core diameter ⁴⁾	200, 400, 600 μm	200, 400, 600, 800, 1000 or 1200 μm			800, 1000 or 1200 μm	
Connector port ⁵⁾	SMA / SMA				SMA / SMA	
Fiber core material	UV fused silica				UV fused silica	
Transmission ⁶⁾	>80 % at peak (~70 % typical)				> 75 % at peak (~70 % typical)	
Dimensions (W×L×H)	60 × 69 × 52 mm ³				60 × 41 × 53 mm ³ + 160 × 244 × 141 mm ³	

1. Due to continuous improvements all specifications are subject to change. The parameters marked typical are not specifications. They are indications of typical performance and will vary with each unit we manufacture.
 2. Customization for 210–2200 nm range is possible. Please inquire for details.
 3. Up to 10 m long fiber cables are available, inquire for detailed specifications.

4. Other core diameters by request.
 5. Exit beam is uncollimated. Inquire for optional beam collimator.
 6. Transmission for wavelengths below 330 nm depends on laser parameters, typically is in 10–60 % range. Please inquire for details. For wavelengths below 330 nm standard fiber length is 1 m.