500 W Fiber to Free-Space Isolator

No. SR33797

Description

AFR's High Power Fiber to Free-Space Isolator (HPFSI) is the best choice for high power industrial pulse fiber lasers. With unique, patented technology, the power handling capacity was elevated to 500 W average laser power, and with very competitive cost-effectiveness.

Key Features

- High Power Handling
- Low Insertion Loss

Applications

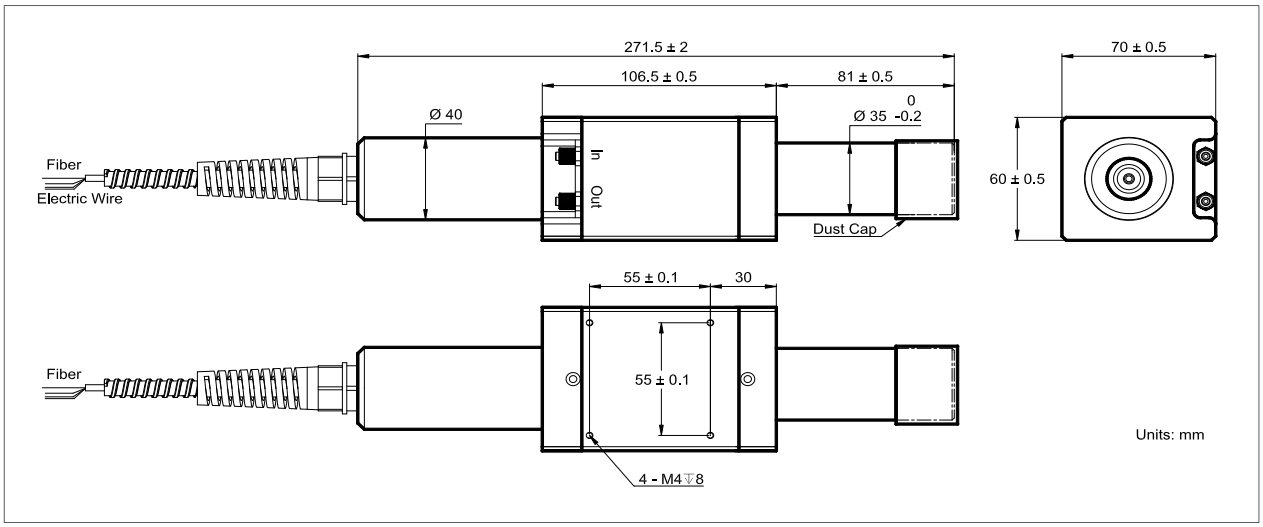
- Fiber Lasers
- Fiber Optic Instruments

Specifications

Optical Parameter	Unit	Values
Operating Wavelength (λc)	nm	1064 ± 15
Max. Insertion Loss at 23 ℃, λc	dB	0.4
Typ. Peak Isolation	dB	40
Min. Isolation at 28 ℃	dB	30
Min. Return Loss	dB	50
Nominal Output Beam Diameter ($1/e^2$ @ 500 W)[1]	mm	7.0 ± 0.5 @ M2 = 1.5
Beam Circularity @ Focal Spot[1]	%	> 90
M^2 Degradation	%	< 10
640 nm Transmission	%	> 20
Max. Focal Shift of Thermal Lens[1]	Z_R	≤ 0.5
Typ. Focal Shift of Thermal Lens[1]	Z_R	≤ 0.2
Max. Average Optical Power	W	500
Max. Peak Power for ns Pulse	kW	50
Max. Average Optical Power from Cladding	W	5
Max. Tensile Load	N	5
Beam Offset	mm	< 0.7
Pointing Error	mrad	< 2.5
Fiber Type	-	Specified by Ordering Info
Cooling	-	Water
Water Quality	-	Purified or Distilled Water
Flow Rate	L / min	1.5 - 2.5
Water Pressure	Mpa	≤ 0.3
Water Temperature	-	≥ 5 °C Above Dew Point Temperature
Water PH Value	-	6.2 - 7.9
Operating Temperature	℃	+ 10 to + 50
Storage Temperature	℃	- 10 to + 60

[1]The high power performances are tested by the BeamSquared.

Package Dimensions



Ordering Information

SteadiBeam+-500-①①①①-②-③-④-⑤-⑥-**P**

①①①①: Wavelength	②:Beam Diameter	③: Jacket Type	④: Jacket Length
1064 - 1064 nm	7 - 7 mm	10 - 10 mm Armoured cable	5 - 5.0 m
SSSS - Specify	S - Specify	S - Specify	S - Specify

⑤: Fiber Type	⑥: Fiber Length	⑦: Power Type
1 - CJGDF-30/250-062	6.5 - 6.5 m	P - Pulse Application
S - Specify	S - Specify	C - Continuous Wave