



1064 nm 1000 W Fiber to Free-space Isolator

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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 1000 W average laser power

Key Features

- High Power Handling
- Low Insertion Loss

Applications

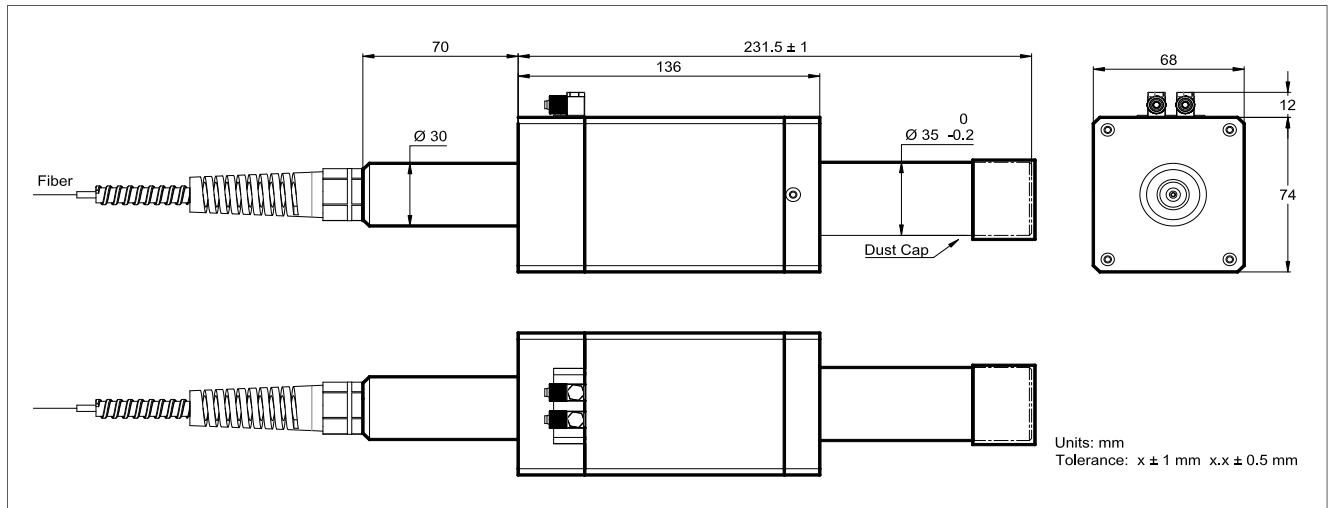
- Fiber Laser
- Fiber Optic Instruments

Specifications

Optical Parameter	Unit	Values
Operating Wavelength (λ_c)	nm	1064
Max. Insertion Loss at 23 °C, λ_c	dB	0.4
Typ. Peak Isolation	dB	40
Min. Isolation at 28 °C	dB	30
Min. Isolation at All Temperature	dB	20
Min. Return Loss	dB	35
Nominal Output Beam Diameter ($1/e^2$) @ $M^2 = 1.5$	mm	7.5 ± 1
Beam Circularity	%	> 90
M^2 Degradation	%	< 10
Focal Shift	Z_R	< 0.5
640 nm Transmission	%	> 20
Max. Average Optical Power	W	1000
Max. Peak Power for ns Pulse	kW	300
Beam Offset	mm	< 1.0
Pointing Error	mrad	< 2.5

Fiber and conditions	Unit	Values
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	-	5.6 - 7.9
Operating Temperature	°C	+ 10 to + 50
Storage Temperature	°C	- 20 to + 60

Package Dimensions



Ordering Information

HPFSI-1000-①①①①-②-③-④-⑤-⑥-P

①①①①: Wavelength

1064 - 1064 nm

SSSS - Specify

②: Beam Diameter

7.5 - 7.5 mm

S - Specify

③: Jacket Type

10 - 10 mm Armoured Cable

S - Specify

④: Jacket Length

5 - 5.0 m

S - Specify

⑤: Fiber Type

1 - 30/250 NA0.065

S - Specify

⑥: Fiber Length

6.5 - 6.5 m

S - Specify

⑦: Power Type

P - Pulse Application

C - Continuous Wave