

# High Power 2 $\mu\text{m}$ Fiber Optical Isolator

(up to 50W, SM, PM, LMA, DCM)

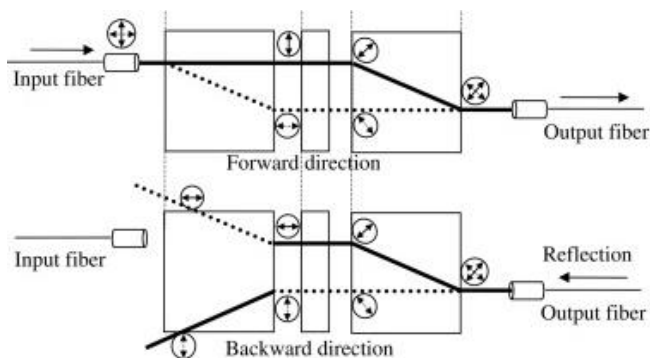


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This 2  $\mu\text{m}$  passive device transmits high power light from input fiber into output fiber while blocking the unwanted light from back reflection and scattering. Leveraging Agiltron's proprietary magneto-optic technology and advanced micro-optic techniques, it offers compact size, high power handling, low loss, and exceptional reliability at a competitive cost. For optical power levels below 20W, heatsink fins are utilized for thermal management, while a proprietary passive liquid cooling system ensures reliable heat dissipation for power levels exceeding 20W. Agiltron provides polarization-independent, polarization-maintaining, and custom-designed versions with integrated filter and power monitor, with support for a broad wavelength range and compatibility with specialized fibers.



## Applications

- Laser Pump Source
- Optical Fiber Amplifier
- Laser Manufacturing
- Laser Marking

## Features

- High Power
- High Isolation
- High Reliability
- Low IL, PDL & TDL
- Cost Effective

## Specifications

Parameter	Min	Typical	Max	Unit
Center Wavelength	1940, 2000, 2050, 2100			nm
Wavelength Bandwidth		$\pm 50$		nm
Insertion Loss <sup>[1]</sup>	Single Stage	$\leq 1.2$		dB
	Dual Stage	$\leq 1.5$		
Isolation	Single Stage	$\geq 16$		dB
	Dual Stage	$\geq 35$		
Polarization Dependent Loss	Single Stage	$\leq 0.15$		dB
	Dual Stage	$\leq 0.2$		
Extinction ratio <sup>[2]</sup>		$\geq 18$		dB
Return Loss		$\geq 50$		dB
Power Handling		1, 2, 3, 5, 10		W
Fiber Type	SMF-28e, SM1950, SM2000, PM1550, PM1950, 10/130DCF			
Operating Temperature	0		+65	$^{\circ}\text{C}$
Storage Temperature	-40		+85	$^{\circ}\text{C}$
Dimensions	$\varnothing 5.5 \times 35, 80 \times 12 \times 10$			mm

**Notes:**  
 [1]. Without connectors  
 [2]. PM fiber only

**Note:** For a polarized input light version, the isolation is optimized to block the light reflection of the same polarization. Although lights of other polarizations may also be blocked, the extinction may be poor. PM isolators can be specially made to block backward propagating lights of all polarizations. PM isolators can also be made with a light polarizing function.

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Rev 03/07/25

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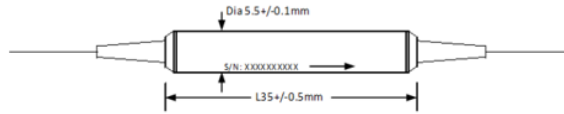


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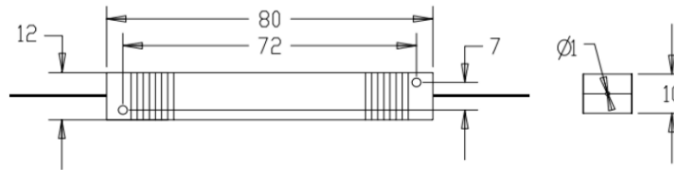
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### Mechanical Footprint Dimensions (mm)

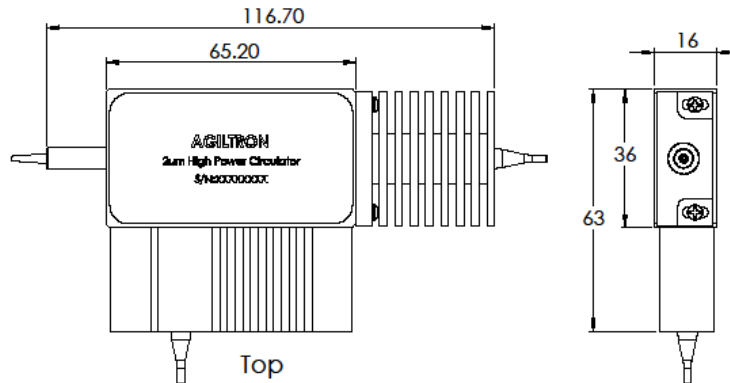
#### For 1~5W



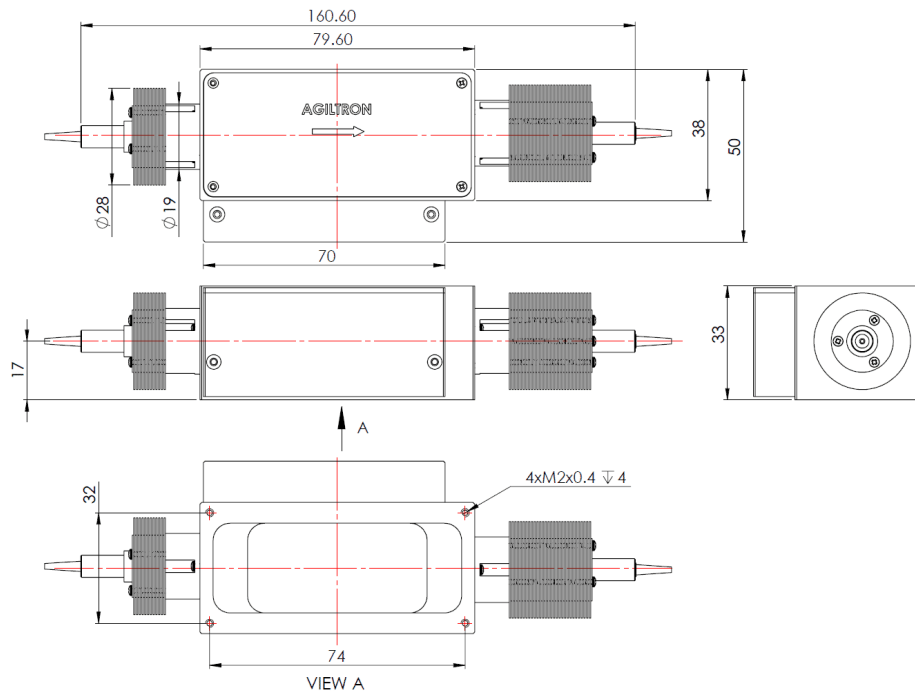
#### For 6~10W



#### For 15~30W



#### For 50W



\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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### Ordering Information

Prefix	Type	Wavelength	Power Handling	Stage	Fiber Type	Fiber Cover	Fiber Length	Connector
<b>OI2H-</b>	Regular = 11 PM = 12 Special = 00	1940 = 1 2000 = 2 2050 = 3 Special = 0	0.5W = 1 2W = 2 3W = 3 5W = 5 10W = 6 20W = 7 30W = 8 40W = 9 50W = A	Single = 1 Dual = 2 Three = 3	SMF28 = 1 SM1950 = 9 PM1950 = 8 PM 1550 = 5 10/130DCF = 7 Special = 0	Bare fiber = 1 900um tube = 3 Armor cable = 5 Special = 0	0.25m = 1 0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 Special = 0

**Note:**

The regular connector can only handle 0,5W. We make high-power connector (\$390 ea)