

# 1 Micron All-Fiber Isolator

## (No Free Space Element)

### AP-aISO

This world's first all-fiber isolator utilizes AdValue Photonics' proprietary fiber technology, eliminating all free-space elements and containing no open optical surfaces. Its design is inherently reliable and ideal for high power fiber laser applications.

An isolator is typically used to block light traveling in the backward direction, preventing instability and damage to a laser system caused by back reflections.

#### Applications:

- Fiber laser systems
- Fiber amplifier systems



#### Features:

- High power
- All-fiber construction with no free-space element
- Extraordinary reliability
- Polarization maintaining
- Integrated backward power monitoring port

#### Optical Characteristics:

Parameter	Unit	Specification
Optical Power (CW)	W	>50
Operating Wavelength	nm	1064
Isolation	dB	>20
Insertion Loss	dB	1.5
Min. Return Loss	dB	50
Backward Power Handling	W	>50
Input/Output Fiber		Panda PM fiber 10/125 $\mu\text{m}$ , 0.08 NA, 3 mm protection jacket, fiber length > 0.5 meter.

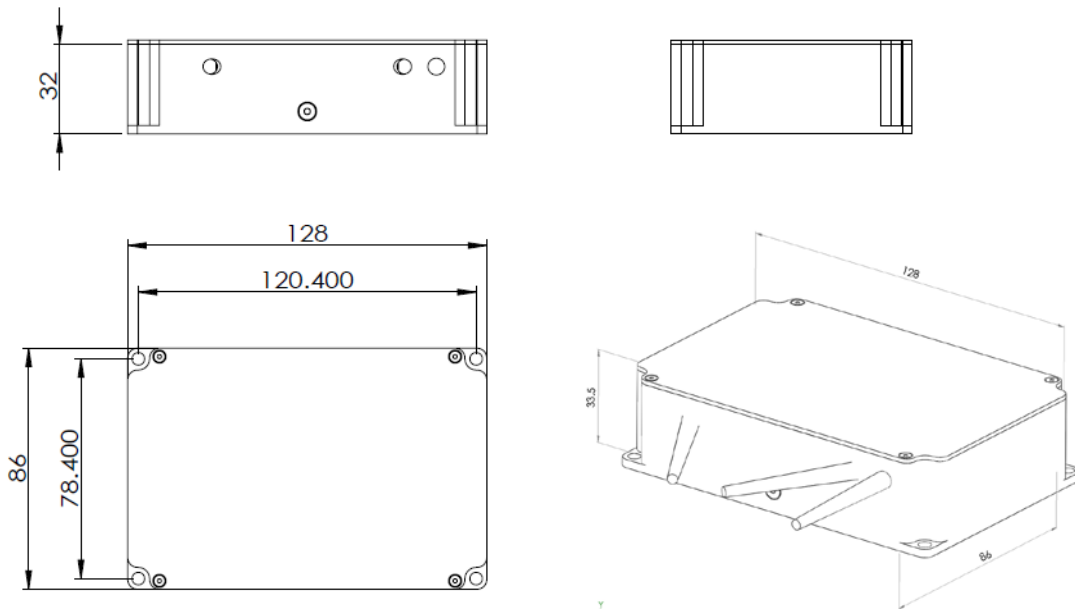
(Customization options are available.)

*Specifications subject to change without notice*

## General Characteristics:

Parameter	Unit	Specification
Maximum Tensile Load	N	5
Operating Temperature	°C	20 to 45
Storage Temperature	°C	-10 to +70
Operating Humidity	%	0 to 85
Storage Humidity	%	0 to 85
Package Dimensions	mm	128W x 86D x 32H

## Mechanical Outline:



## Ordering Information:

Part Number:	AP-alSO	-	xxxx	-	xx	-	(Polarization)
			Standard Wavelength: 1064 = 1064 nm Custom Wavelength: xxxx = xxxx nm		Optical Power: 50 = 50 W xx = xx W		Polarization: PM = polarization maintaining

(For special request, please contact AdValue Photonics at 1-520-790-5468 or [sales@advaluephotonics.com](mailto:sales@advaluephotonics.com).)

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