



Ge ACOUSTO-OPTIC MODULATOR

GERMANIUM AOM FOR HIGH-POWER, 9.4 μm OR 10.6 μm APPLICATIONS

An acousto-optic modulator for use at 9.4 μm or 10.6 μm wavelength, ideal for extra-cavity modulation or power control of high power CO₂ lasers.

Combining optimum grade mono-crystalline germanium, high quality optical finishing, robust anti-reflection coating and high reliability transducer bonding, with novel acoustic management and opto-mechanical design techniques, we have successfully achieved exceptional thermal management whilst maintaining high RF power handling, transmission and diffraction efficiency.

In addition to the specifications indicated, we also offer alternative wavelengths, RF frequencies, active apertures and a wide range of custom housing configurations.

This product conforms to the requirements of the European Union Directive 2011/65/EU of the European Parliament and of the Council on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment.

Our scientists and engineers are available to assist in selecting the most appropriate acousto-optic device and RF driver for your application.



Key Features

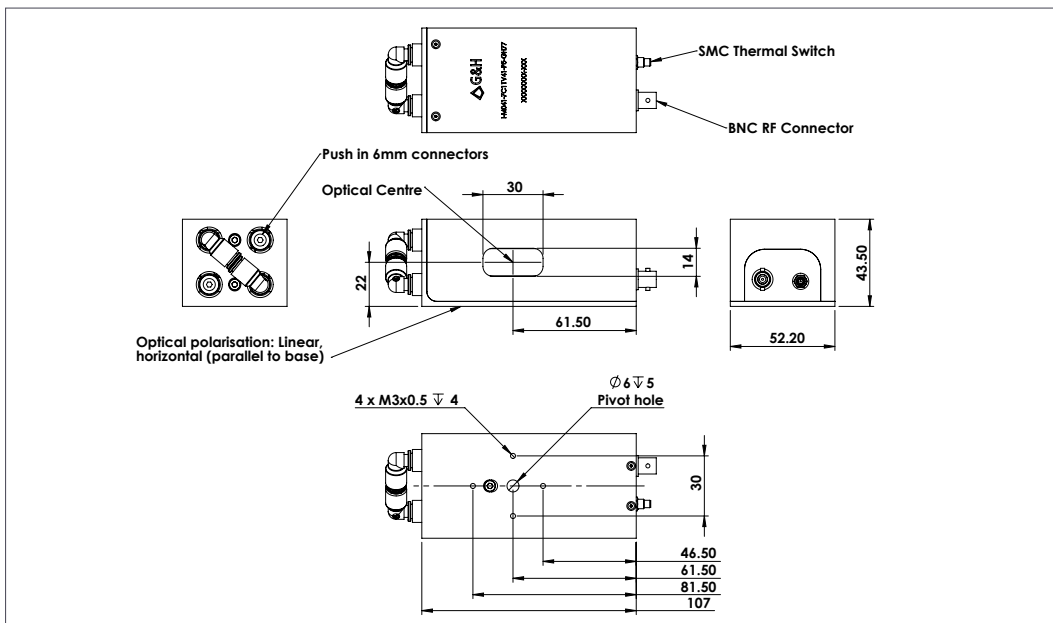
- High optical power handling
- Low insertion loss
- Excellent pointing stability
- Superior beam quality

Applications:

- Industrial (material processing):
 - PCB via drilling
 - Marking and engraving
 - Light guide panel processing
 - Micro-perforation
- Q-switching

General Specifications

Device:	AO Modulator
Interaction material:	Germanium
Wavelength:	9.4 μm or 10.6 μm
Maximum optical power density:	> 15 W/mm ²
AR coating reflectivity:	< 0.2% per surface
Transmission:	> 96.5%
Frequency:	40.68 MHz, 50 MHz or 60 MHz
Optical polarisation:	Linear, horizontal (parallel to base)
Active aperture:	up to 9.6 mm
Acoustic mode:	Compressional
Rise-time (10-90%):	120 ns/mm
Diffraction efficiency:	$\geq 90\%$
Housing:	Refer to drawing



Ordering Code

I - M 0 X X - X X C 1 1 X X X - X 5 - G H 7 7

Code	Frequency	Code	Active Aperture	Code	AR coating	Code	Water connector
41	40.68 MHz	7	7 mm	V41	9.4 μm	P	6mm OD straight push fit
50	50 MHz	10	9.6 mm	Q	10.6 μm	U	6mm OD right angle push fit
60	60 MHz						

For further information

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