

Q1337-G13L-3

IR Acousto-Optic Q-Switch



0321

Small water cooled Germanium AO modulator ideal for compact IR laser applications or Q-switching of CO₂ lasers. The device is designed to operate in Raman-Nath region with multiple diffracted orders.

SPECIFICATIONS

A/R Spectral Range:	9.3µm or 10.6um (specified)
Interaction Medium:	Single Crystal Germanium
Optical path length:	15mm
Acoustic Velocity:	5.5mm/µs
Centre Frequency (fc):	13.56MHz
RF Bandwidth (Δf):	2MHz
Input Impedance:	50Ω
Input VSWR:	< 1.7:1 at fc
Optical Insertion Loss:	< 3.5%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Clear Aperture:	6 mmH x 10 mmL
Active Aperture:	3 mmH x 10 mmL (alternatives available)
Water Cooling (minimum):	1litre/minute at < 20°C

TYPICAL PERFORMANCE

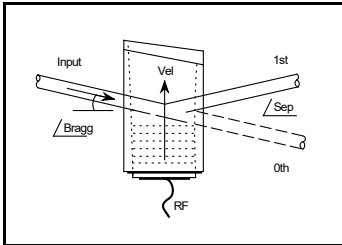
<u>Input beam diameter:</u>	<u>3mm</u>	
Optical access time:	0.35us	
Kick out Efficiency:	> 30% for 50W	
Optical Power:	200 Watts *	
Input Angle:	<u>9.3um</u>	<u>10.6um</u>
Separation angle	0 mrad	0 mrad
between diffracted orders:	22.9 mrad	26.1 mrad

CAUTION when applying CW RF powers in excess of 50W

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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Quality Assured.
In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding



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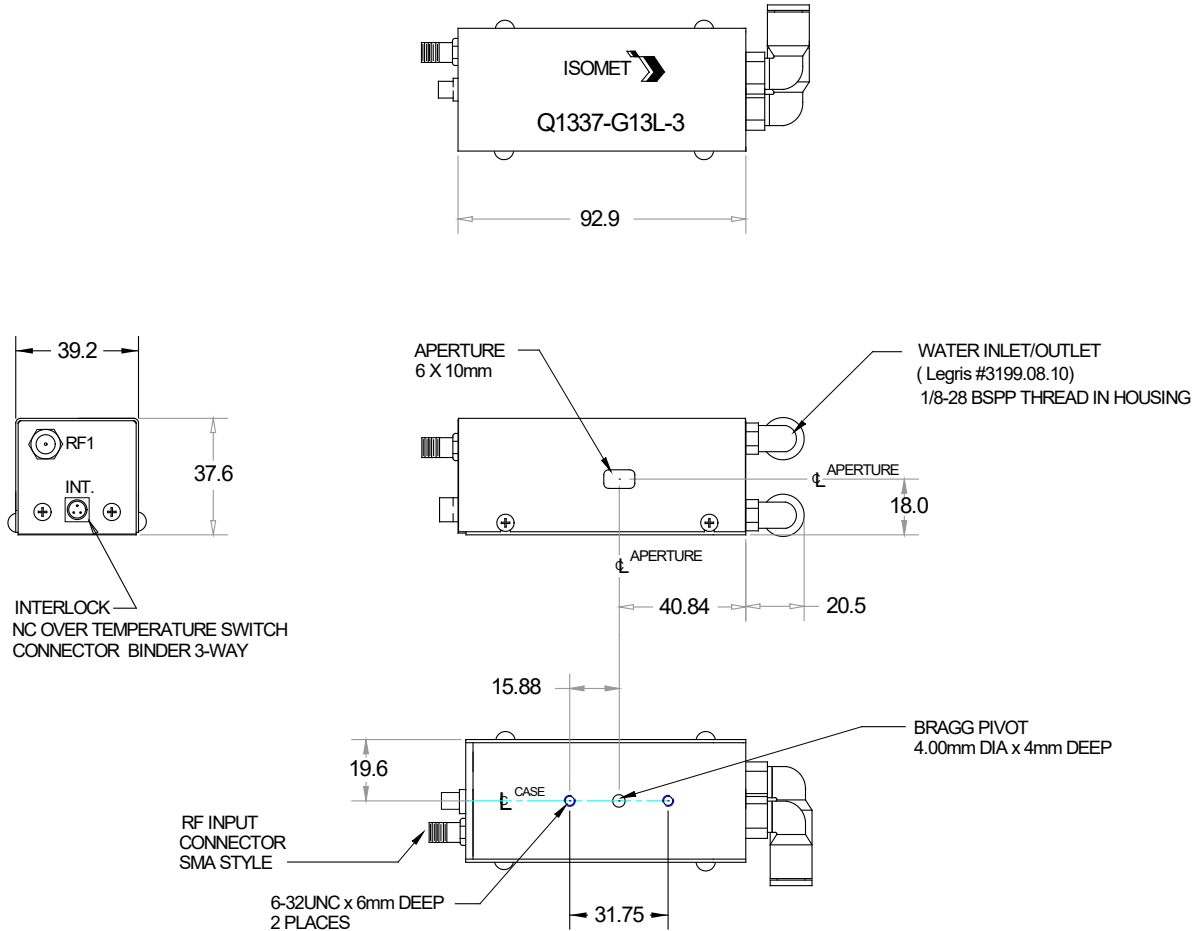
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OUTLINE DRAWING

Dimn: mm



Add -M for metric mounting threads
Refer application note AN1906 regarding Coolant Specification

Due to RF drive power dissipation, the Q1337 requires water-cooling to prevent thermal runaway. (>1L/min at < 20degC). The integral NC thermal interlock switch opens at 32degC.

The water cooled case parts are aluminium. It is strongly recommended that a corrosion inhibitor is added to the cooling system. Copper case version option available (-C).

DRIVERS

Modulator Driver/Amplifier

RFA213

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