

1208-G40-3

IR Acousto-Optic Modulator (Metric)



0514

SPECIFICATIONS

Standard A/R Spectral Range:	9 μ m – 11 μ m (or specified "V" coat)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ μ s
Centre Frequency (fc):	40MHz
RF Bandwidth (Δ f):	10MHz
Input Impedance:	50 Ω
Input VSWR:	< 1.5:1 at 40MHz
Optical Insertion Loss:	< 7%
Reflectivity (average across range):	< 1%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Optical Power (Maximum):	50 Watts (full aperture)
Active Aperture:	3 mmH x 8 mmL
Water Cooling (minimum):	2 litre/minute at < 20°C
Outline Dimensions:	(See reverse)

TYPICAL PERFORMANCE

<u>Input beam diameter:</u>	<u>3mm</u>
Optical access time:	0.35 μ s
Diffraction Efficiency:	> 80%
Optical Power:	50 Watts *
<u>Wavelength:</u>	<u>10.6μm</u>
RF Drive Power:	< 65W
Bragg Angle (mrad):	38.5
Separation Angle (mrad):	77.1

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

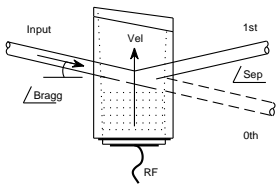
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Quality Assured.

**In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding**



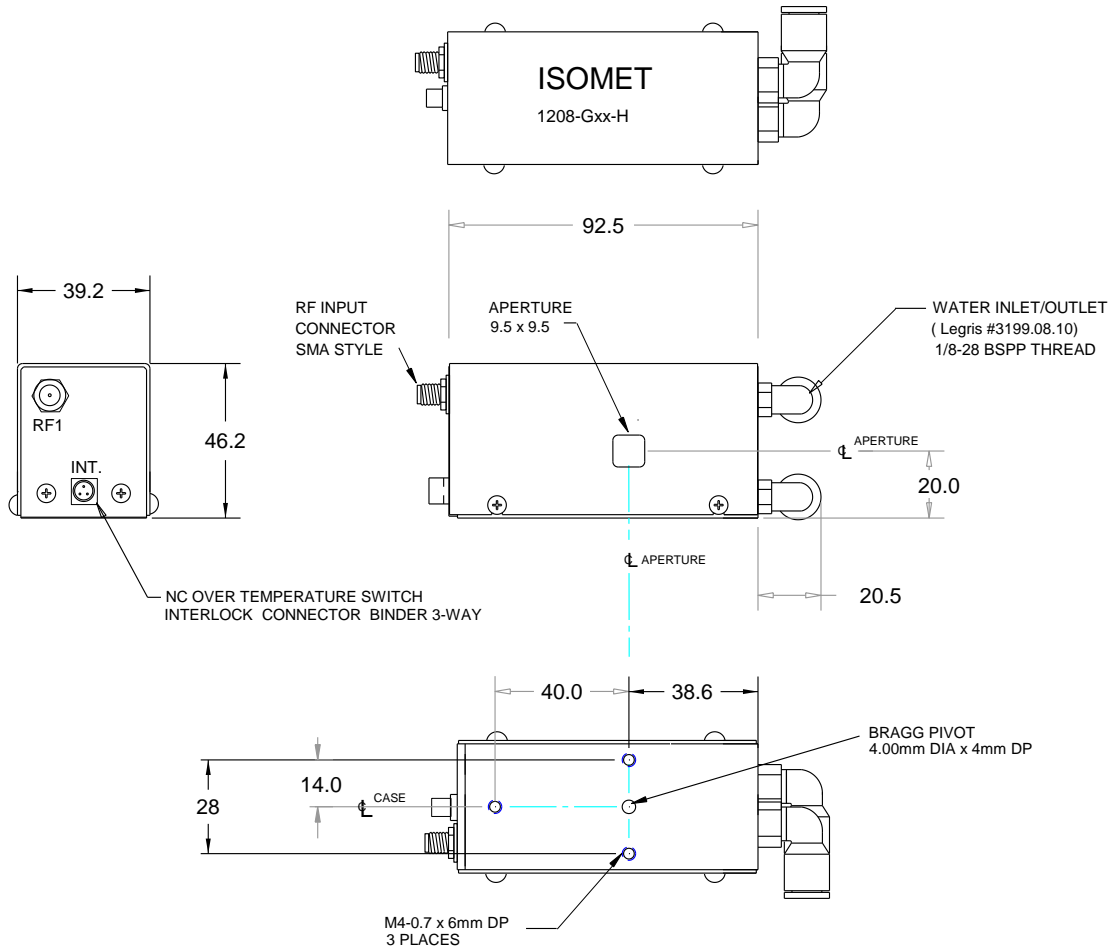
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OUTLINE DRAWING



Due to RF drive power dissipation, the 1208 requires water-cooling to prevent thermal runaway (>2L/min at < 20degC). The integral NC thermal interlock switch opens at 32 deg C.

The water cooled case parts are aluminium. It is strongly recommended that a corrosion inhibitor is added to the cooling system.

DRIVERS

Modulator Driver/Amplifier

RFA241

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