

# M1208-G40-3, -4

## IR Acousto-Optic Modulator (Metric)

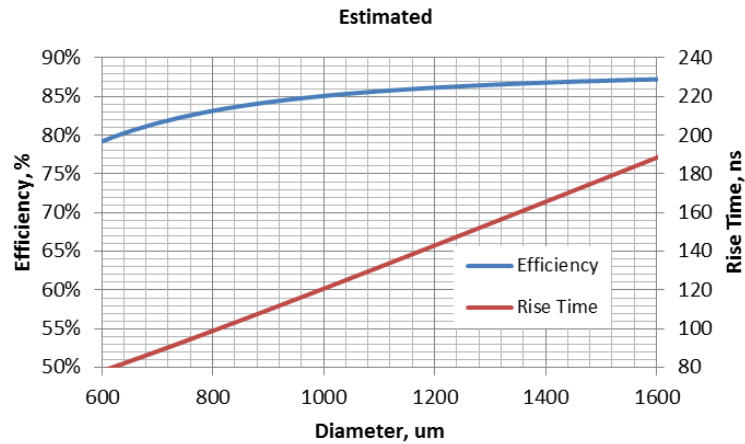


0421

### SPECIFICATIONS

Standard A/R Spectral Range:	9.4 $\mu$ m or 10.6 $\mu$ m "V" coat (9 -11 $\mu$ m option available)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ $\mu$ s
Centre Frequency (fc):	40MHz
RF Bandwidth ( $\Delta$ f):	10MHz
Input Impedance:	50 $\Omega$
Input VSWR:	< 1.5:1 at 40MHz
Optical Insertion Loss:	< 5%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Active Aperture -3:	3 mmH x 8 mmL
-4:	4 mmH x 8 mmL
Water Cooling (minimum):	2 litre/minute at < 20 $^{\circ}$ C

### TYPICAL PERFORMANCE

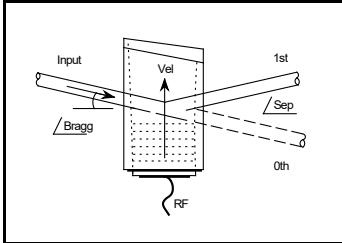


<u>Wavelength:</u>	<u>9.4<math>\mu</math>m</u>	<u>10.6<math>\mu</math>m</u>
RF Drive Power, -3:	< 55W	< 65W
-4:	< 70W	< 85W
Bragg Angle (mrad):	34.2	38.5
Separation Angle (mrad):	68.4	77.1

\* For higher powers please contact Isomet

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
 Tel: (703) 321 8301 Fax: (703) 321 8546  
 E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

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



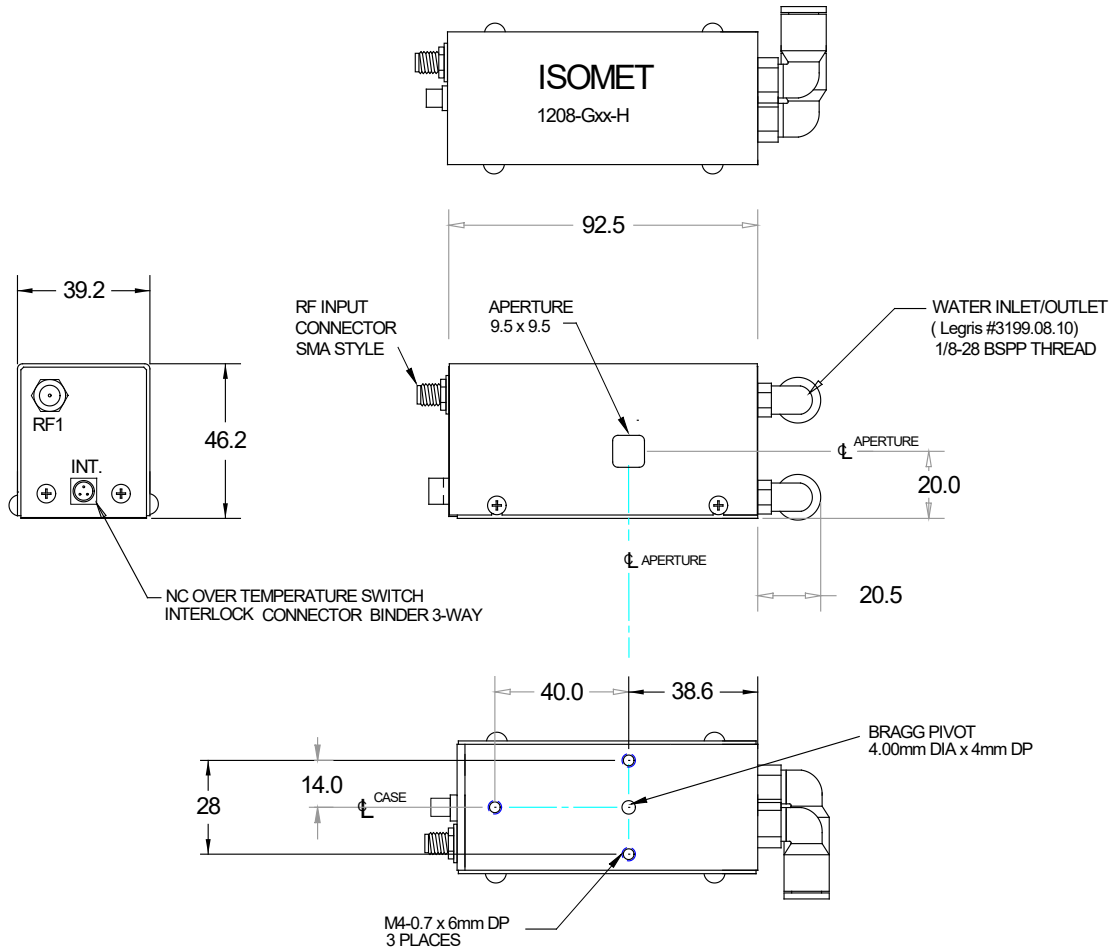
# M1208-G40-3, -4

## IR Acousto-Optic Modulator (Metric)



0421

### OUTLINE DRAWING



Due to RF drive power dissipation, the M1208 requires water-cooling to prevent thermal runaway (>2L/min at < 20degC). The integral NC thermal interlock switch opens at 32 degC.

### Refer application note AN1606 regarding Coolant Specification

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

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
 Tel: (703) 321 8301 Fax: (703) 321 8546  
 E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

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