

# M1396-G40-7-BR



## 250W IR Acousto-Optic Modulator

(Low corrosion Case)

0419

### SPECIFICATIONS

Spectral Range:	2.5 $\mu$ m - 11 $\mu$ m
Operating Wavelength:	9.3 or 10.6 $\mu$ m (others on request)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ $\mu$ s
Centre Frequency (fc):	40MHz
Diffraction Bandwidth ( $\Delta$ f):	20MHz
Input Impedance:	50 $\Omega$
Input VSWR:	< 1.7:1 at 40MHz
Optical Insertion Loss:	< 7%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Optical Power (Maximum):	250 Watts
Active Aperture:	7 mmH x 14 mmL
Water Cooling (minimum):	1L/minute at < 20°C
Outline Dimensions:	(See reverse)

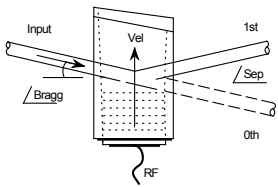
### TYPICAL PERFORMANCE

Input beam diameter:	3mm	7mm
Optical access time:	0.35 $\mu$ s	0.83 $\mu$ s
Diffraction Efficiency:	> 85%	> 85%
Optical Power *	100 Watts	250 Watts
Bragg Angle:	<u>9.3<math>\mu</math>m</u> 33.9 mrad	<u>10.6<math>\mu</math>m</u> 38.6 mrad
Separation Angle:	67.7 mrad	77.1 mrad
RF Power (typ):	55 W	75 W

\* 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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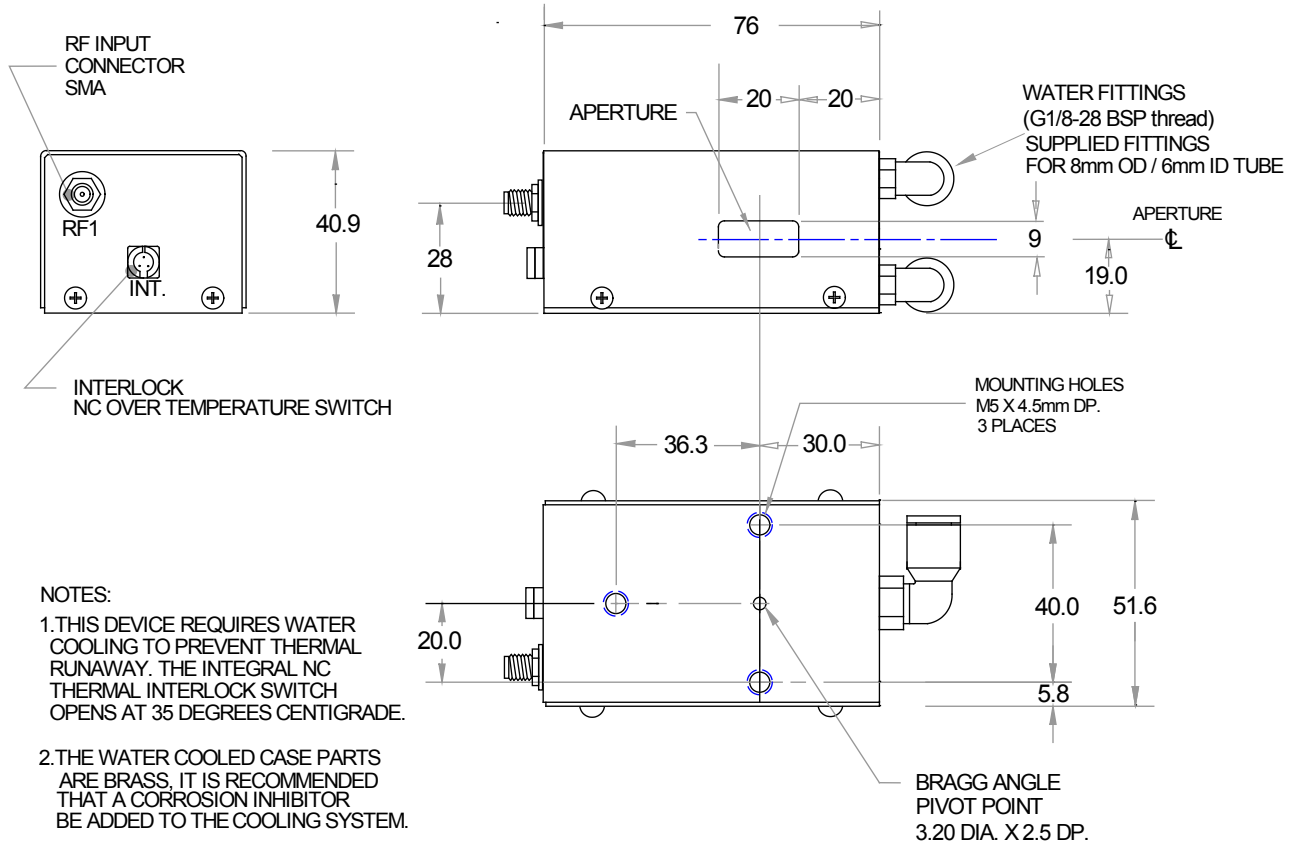
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### OUTLINE DRAWING

All case parts in contact with coolant are fabricated in Brass  
Aluminium available on request



Refer application note AN1606 regarding Coolant Specification

### DRIVERS

**Modulator Driver**  
**Deflector Driver**  
**Amplifier only**

**RFA241-BR**  
**RFA321-BR**  
**RFA200**

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