

1209-7-1064M



250W IR Acousto-Optic Modulator

0513

SPECIFICATIONS

Spectral Range:	2.5 μ m - 11 μ m
Operating Wavelength:	10.6 μ m (others on request)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ μ s
Centre Frequency (fc):	40MHz
RF Bandwidth (Δ f):	20MHz
Input Impedance:	50 Ω
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 $^{\circ}$ C
Outline Dimensions:	(See reverse)

TYPICAL PERFORMANCE at 10.6 μ m

Input beam diameter:	3mm	7mm
Optical access time:	0.35 μ s	0.83 μ s
Diffraction Efficiency:	> 85%	> 85%
Optical Power *	100 Watts	250 Watts
RF Power:	70 Watts nominal	
Bragg Angle:	38.5mrad	
Separation Angle at fc :	77.1mrad	

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

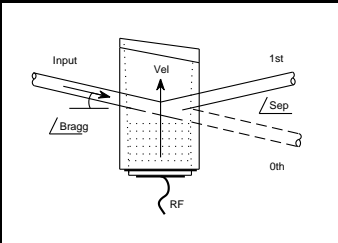
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Quality Assured.

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



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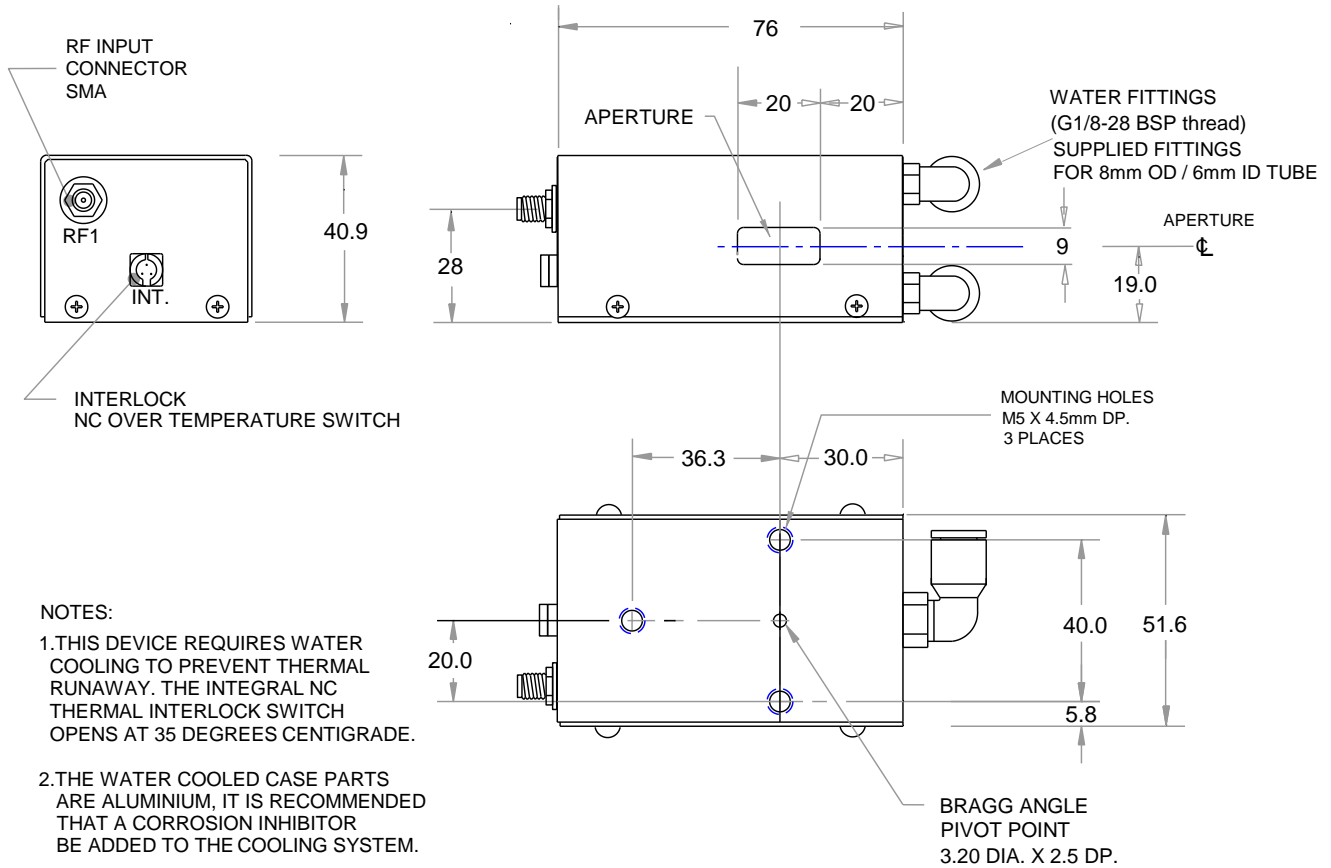
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OUTLINE DRAWING

Dimensions: mm

All case parts in contact with coolant are fabricated in Anodized Aluminium



NOTES:

1. THIS DEVICE REQUIRES WATER COOLING TO PREVENT THERMAL RUNAWAY. THE INTEGRAL NC THERMAL INTERLOCK SWITCH OPENS AT 35 DEGREES CENTIGRADE.
2. THE WATER COOLED CASE PARTS ARE ALUMINIUM, IT IS RECOMMENDED THAT A CORROSION INHIBITOR BE ADDED TO THE COOLING SYSTEM.

DRIVERS

**Modulator Driver/Amplifier
Deflector Driver/Amplifier**

**RFA241
RFA321**

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