

1209-9-1010M

300W IR Acousto-Optic Modulator



0115

A high power Germanium modulator offering improved beam output beam quality for scribing and laser drilling applications

SPECIFICATIONS

Spectral Range:	2.5 μ m - 11 μ m
Operating Wavelength:	9.3 or 10.6 μ m (specify)
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:	< 1.7:1 at 40MHz
Optical Insertion Loss:	< 7%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Average Optical Power (Maximum):	300 Watts*
Active Aperture:	9 mmH x 20 mmL
Water Cooling (minimum):	2L/minute at < 20 $^{\circ}$ C
Outline Dimensions:	(See reverse)

TYPICAL PERFORMANCE

Input beam diameter:	7mm	
Optical access time:	0.83 μ s	
Diffraction Efficiency:	> 85%	
Bragg Angle:	<u>9.3μm</u>	<u>10.6μm</u>
Separation Angle:	33.9 mrad	38.6 mrad
	67.7 mrad	77.1 mrad
RF Power (typ):	65 W	85 W

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

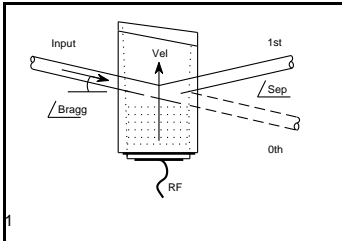
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Quality Assured.

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



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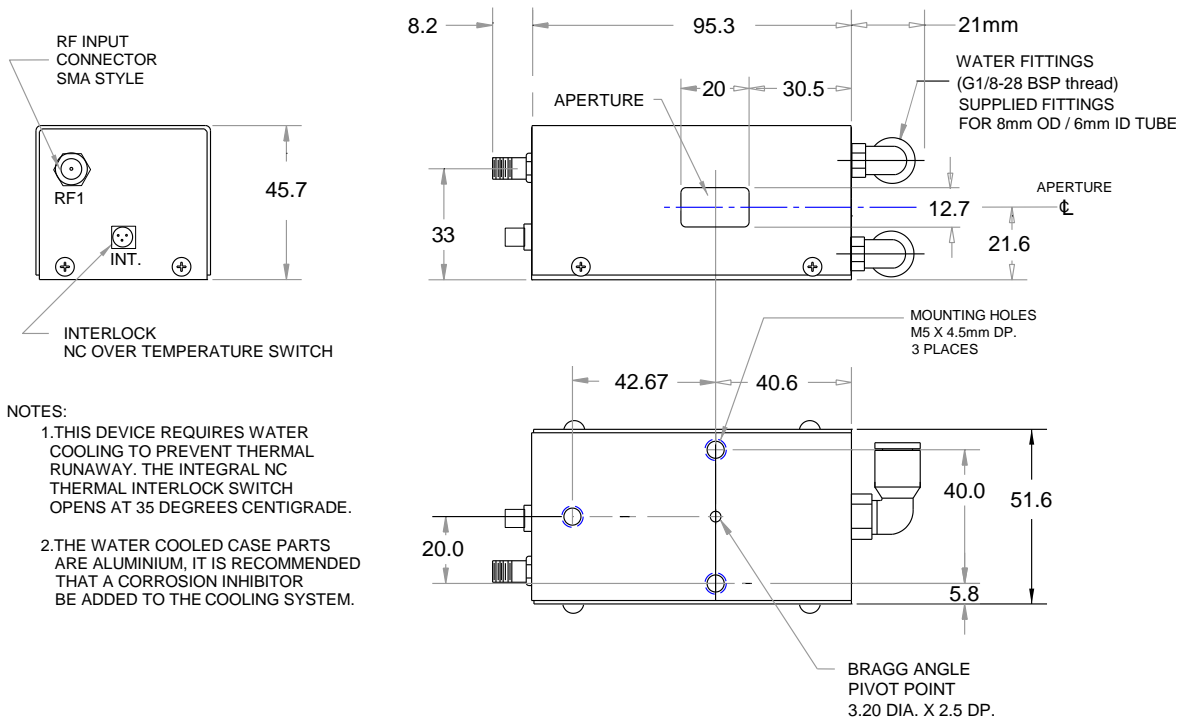
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OUTLINE DRAWING

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



Refer application note AN0901 regarding Coolant Specification

Options:

-BR : Case parts in contact with coolant fabricated in Brass
 Alternate water fittings available (G1/8 thread)

DRIVERS

Modulator Driver/Amplifier

RFA441A

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