

M1340-aQ120-H



UV Acousto-Optic Modulator/Deflector

0419

The M1340-aQ120 is high efficiency AO modulator developed specifically for industrial 343/355nm laser applications including:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

SPECIFICATIONS

Operating Wavelength:	343nm, 355nm
Interaction Material:	Quartz
Centre Frequency (fc):	120MHz
RF Bandwidth:	20MHz
Diffraction Efficiency at fc:	85% minimum, 90% typ'
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 120MHz
Active Aperture, H:	H=3, 3mm H=5, 5mm H=7, 7mm
Optical Insertion Loss:	<3% (<2% typical)
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>1000:1 min (2000:1 typical)
Laser Polarization:	Vertical, Perpendicular to scan
Water Cooling (Min):	2L/minute @ 25deg C

PERFORMANCE vs. WAVELENGTH

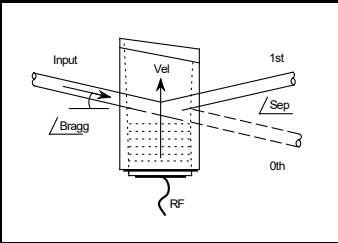
Wavelength:	343nm	355nm
RF Drive Power, H=3mm:	<5.6W	< 6W
H=5mm	<9.5W	<10W
H=7mm	< 13W	<14W
Bragg Angle:	3.6mrad	3.74mrad
Separation Angle (at fc):	7.2mrad	7.47mrad

PERFORMANCE vs. BEAM DIAMETER

Beam Diameter (mm):	5.0	3.0
Optical Rise time (nsec):	570	227
Video Bandwidth (MHz):	0.7	1.5

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.
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Quality Assured.
 In-house: Crystal Growth,
 Optical Polishing,
 A/R coating, Vacuum Bonding



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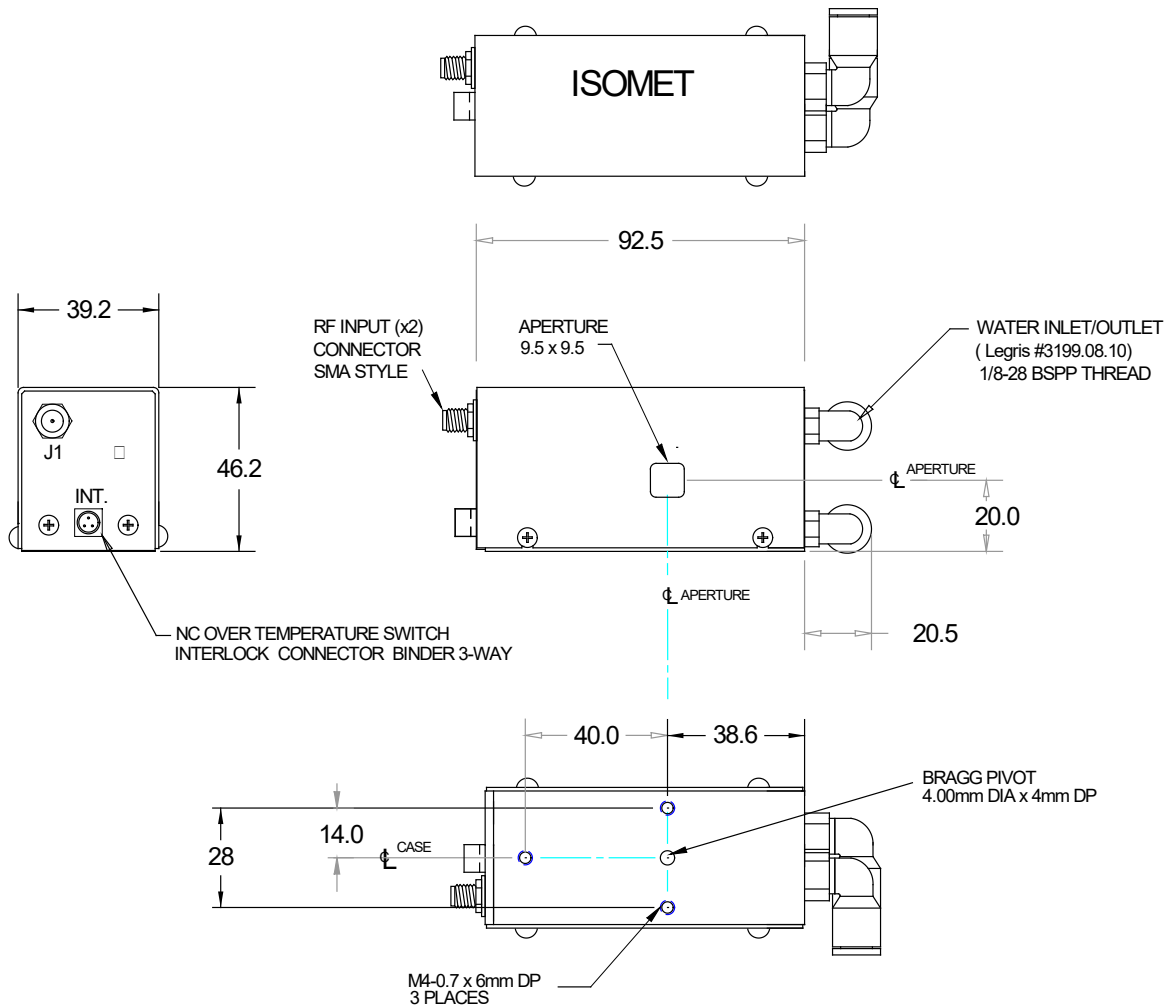


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RF Drive Electronics

RFA2120 (water cooled), RFA910-120 (air cooled), RFJ120-1-15 (conduction cooled)

OUTLINE DRAWING

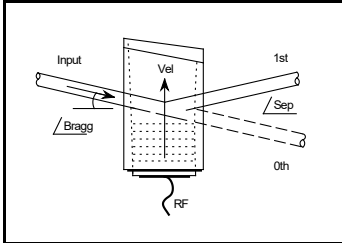


Water cooled case parts are made from Aluminium.
Copper alternative is available as an option

Refer application note AN1606 regarding Coolant Specification

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