

D1340-aQ120-5

UV Acousto-Optic Deflector



0718

The D1340-aQ120 is high speed, high efficiency AO deflector developed specifically for industrial 355nm laser applications including:

- Material Processing
- Drilling
- Surface texturing
- Micro machining

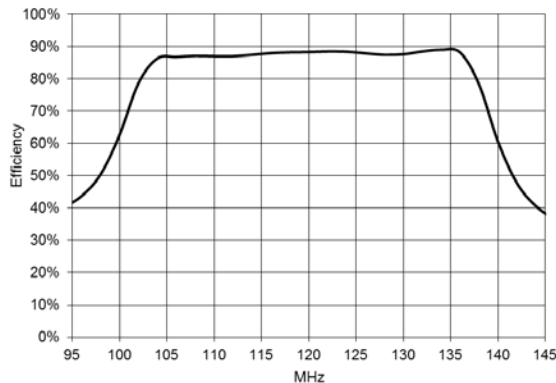
SPECIFICATIONS

Operating Wavelength:	355nm
Centre Frequency (fc):	120MHz (+/- 5% for best scan response)
RF Bandwidth:	30MHz minimum
Diffraction Efficiency:	>85% at fc
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 120MHz
Active Aperture:	5mm
Optical Insertion Loss:	<3% (<2% typical)
Reflectivity:	<0.5%/Surface
DC Contrast Ratio:	>2500:1 min (5000:1 typical)
Laser Polarization:	Vertical, Perpendicular to scan
Water Cooling (Min):	2L/minute @ 25deg C

PERFORMANCE vs. WAVELENGTH

Wavelength:	355nm
RF Drive Power:	12.0W
Bragg Angle:	3.7mrad
Separation Angle (at fc):	7.5mrad
Scan Angle ($\Delta f = 32\text{MHz}$):	2.0mrad
Resolution:	Up to 35 <u>resolvable</u> spots >1000 non-resolvable points

ESTIMATED SCAN RESPONSE

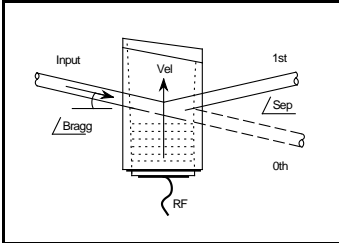


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Quality Assured.
In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding

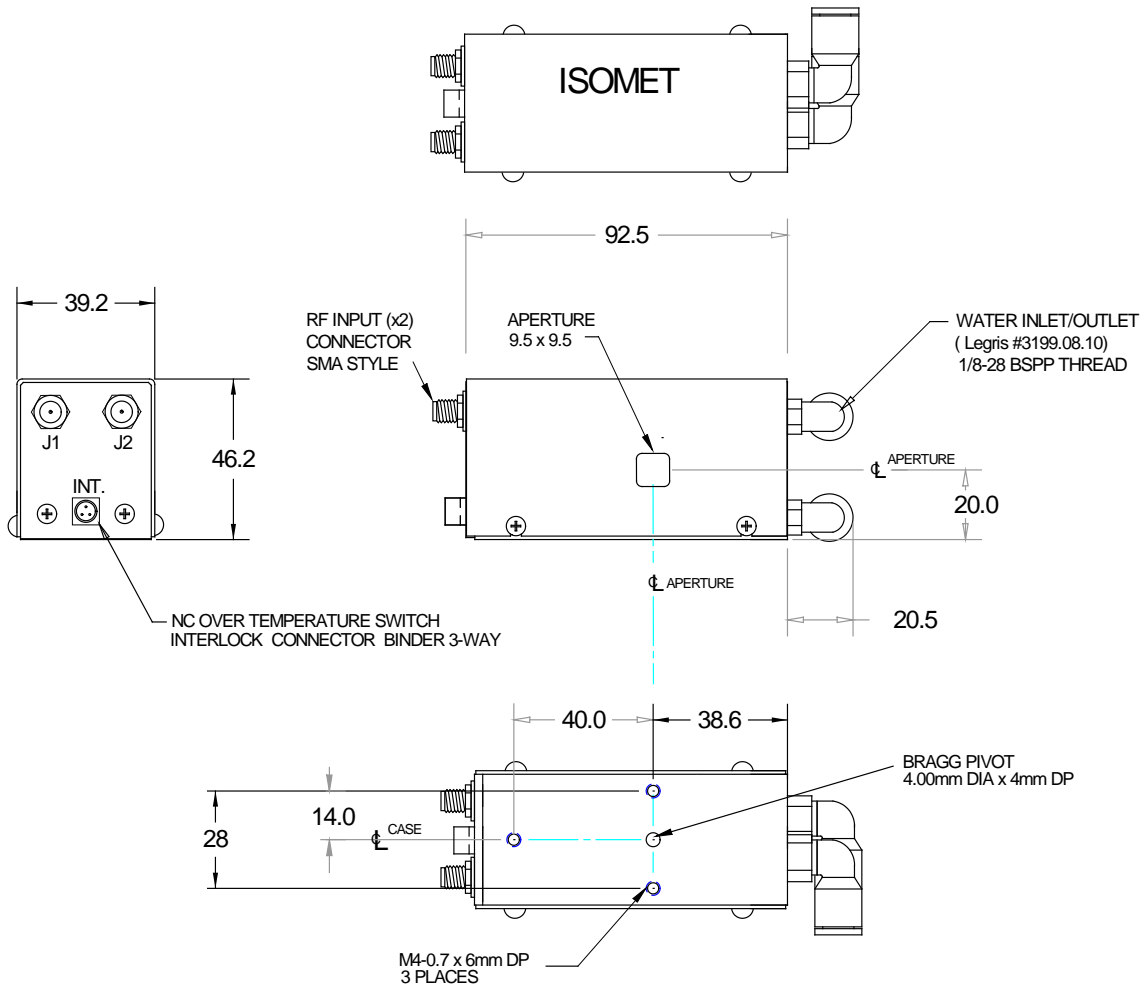
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OUTLINE DRAWING

Dim'n: mm



Water cooled case parts are Aluminium.
Refer application note AN1606 regarding Coolant Specification

DRIVERS

IMS4-L (or -P) programmable synthesizer + RFA0120-2-15 amplifier

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