

# D1340-aQ120-5

## UV Acousto-Optic Deflector



0420

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

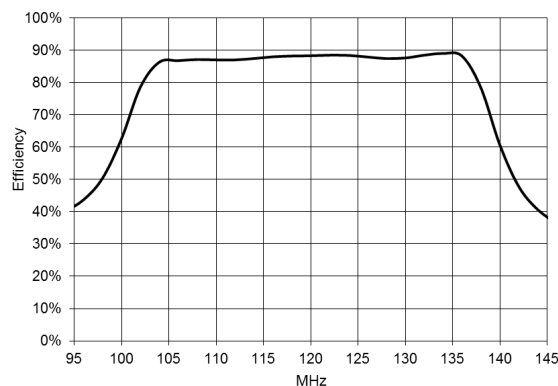
### SPECIFICATIONS

Operating Wavelength:	355nm
Centre Frequency (fc):	120MHz (+/- 5% for best scan response)
RF Bandwidth:	35MHz minimum, 40MHz typical
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

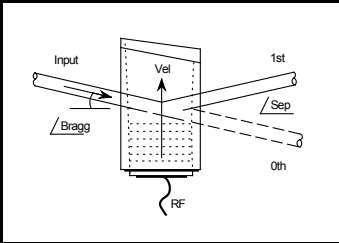
Wavelength:	355nm
RF Drive Power:	12.0W
Bragg Angle:	3.7mrad
Separation Angle (at fc):	7.5mrad
Scan Angle ( $\Delta f = 32\text{MHz}$ ):	2.0mrad

### ESTIMATED SCAN RESPONSE



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
 Tel: (703) 321 8301 Fax: (703) 321 8546  
 E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

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



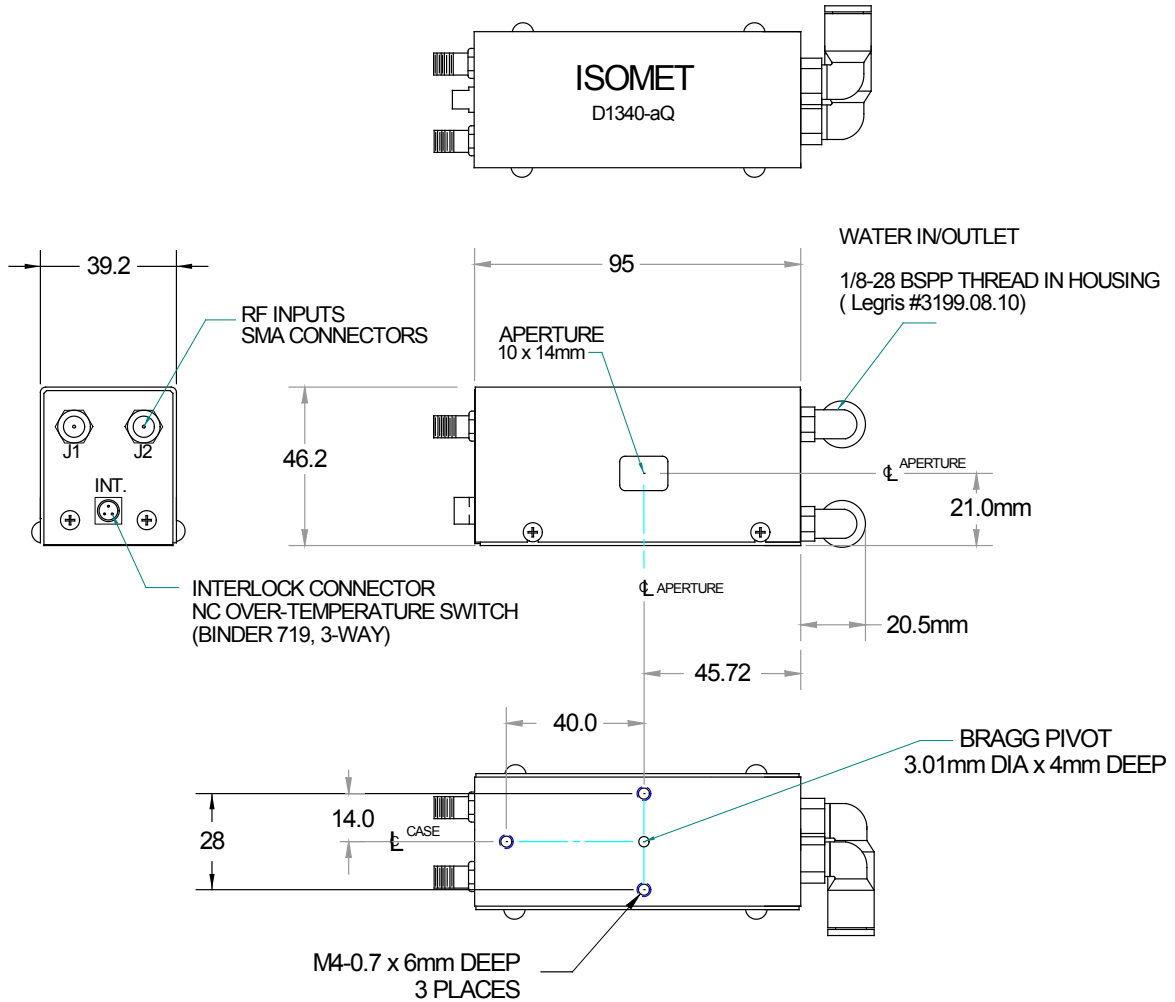
# D1340-aQ120-5

## UV Acousto-Optic Deflector



0420

### OUTLINE DRAWING



Water cooled case parts are Aluminium.

Refer application note AN1906 regarding Coolant Specification

### DRIVERS

VCO based: Driver/Amplifier RFA333-2

Synthesizer based: iMS4-L (or -P) programmable synthesizer + RFA0120-2-15 amplifier

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**  
 ISOMET CORP, 10342 Battlevue Parkway, Manassas, VA 20109, USA.  
 Tel: (703) 321 8301 Fax: (703) 321 8546  
 E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

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