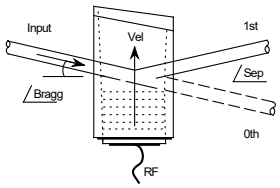


D1384-aQ120-9

High Power Acousto-Optic Deflector

ISOMET

1123

The D1384-aQ120 is high speed, high efficiency AO deflector developed specifically for industrial near-UV laser applications. Also available in a dual axis X-Y configuration.

- Material Processing
- Drilling
- Surface texturing
- Micro machining

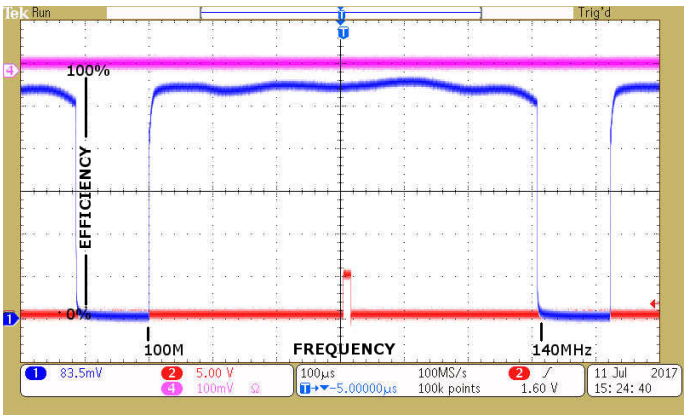
SPECIFICATIONS

Operating Wavelength:	343nm or 355nm, as specified
Centre Frequency (fc):	120MHz (+/- 5% for best scan response)
RF Bandwidth:	30MHz minimum, 40MHz typical
Diffraction Efficiency:	>85% at fc
Input Impedance:	50Ω(Nominal)
Input VSWR:	<1.5:1 @ 120MHz
Active Aperture:	9mm max, optimal for 7mm beam
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

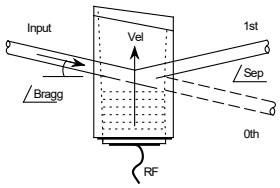
Wavelength:	**343nm**	**355nm**
Total RF Drive Power:	~18W	~20W
Bragg Angle:	3.6mrad	3.7mrad
Separation Angle (at fc):	7.25mrad	7.5mrad
Scan Angle (△f = 40MHz):	2.4mrad	2.5mrad
Resolution:	Up to 50 resolvable spots	
	>1000 non-resolvable points	

TYPICAL SCAN RESPONSE



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

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



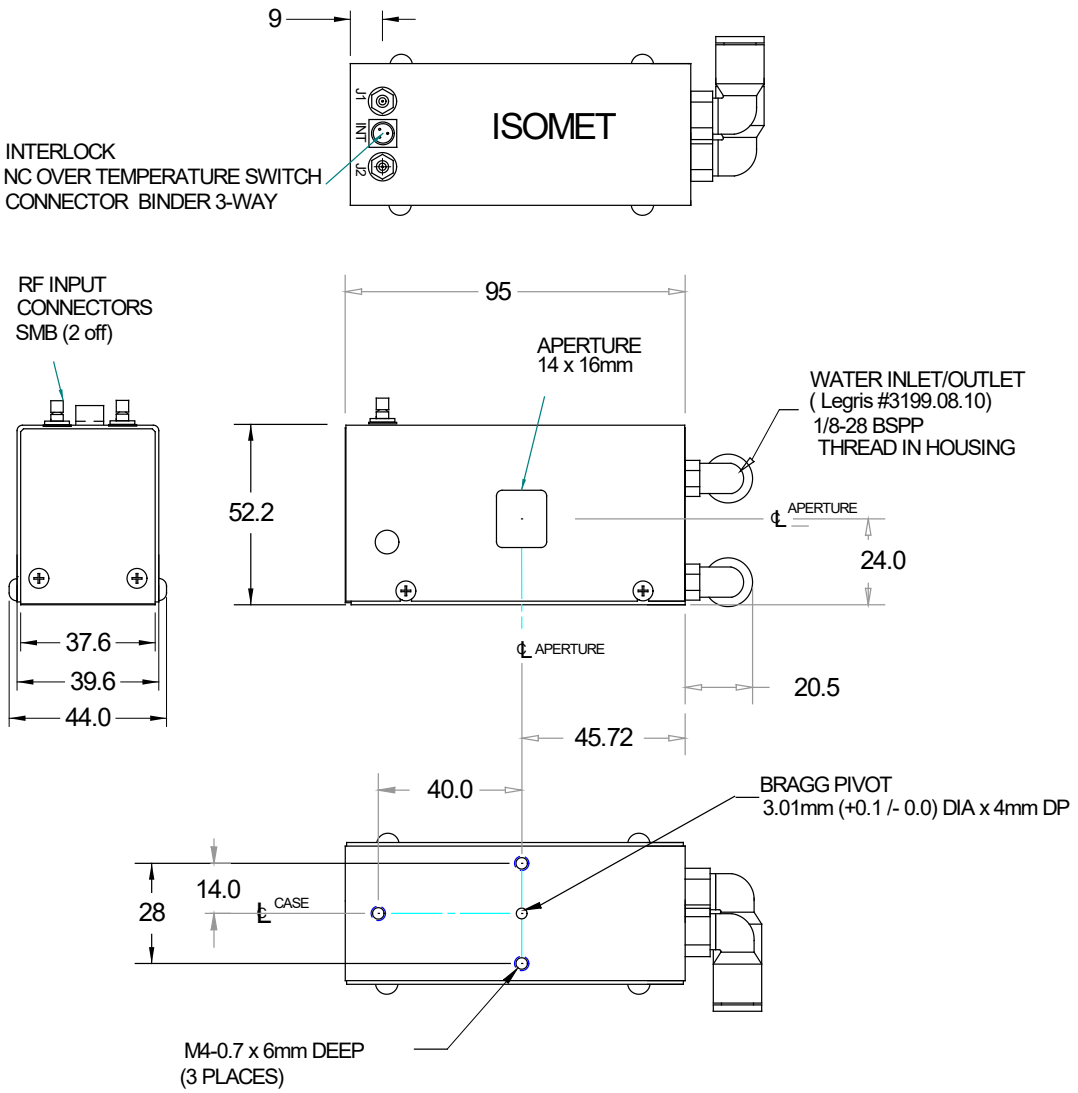
D1384-aQ120-9

High Power Acousto-Optic Deflector

1123

OUTLINE DRAWING

Dim'n: mm



Water cooled case parts are Aluminium.

Refer application note AN1906 regarding Coolant Specification

DRIVERS

Synthesizer based: iMS4-P programmable synthesizer + RFA0120-2-15 amplifier

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