

# D1315(A)-G50-H High Power AO Deflector



0417

## APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing

## FEATURES

- Low loss
- High Optical Power
- All Solid-State

The D1315-G50 series are low loss multi-spot deflectors optimized for duty cycled applications and designed to minimize thermal lensing and reduce beam degradation at high optical powers.

## SPECIFICATIONS (TYPICAL)

Operating Wavelength:	9.4um or 10.6um (specify)*
Interaction Material:	Germanium
Active Aperture:	
H=6	6mm.H x 15mm.W
H=7	7mm.H x 15mm.W
H=8	8mm.H x 15mm.W
H=9	9mm.H x 15mm.W (9.4um only)
Centre Frequency (fc):	50MHz
RF Bandwidth:	20MHz
Design duty cycle	25%,
Maximum duty cycle	100% with caution
Diffraction Efficiency at fc:	> 85%, 90% typical
RF Power for Max. D/E	< 180 Watts peak total (-9)
Static Insertion Loss:	< 5%
Maximum Optical Power:	600 Watts, 7mm dia. Gaussian beam
Laser Polarization:	Linear, Horizontal
Water Cooling (Minimum):	> 2 Liter/Min. @ < 20°C
<u>Dual Spot Performance at 9.4um</u>	
Bragg Angle at 9.4um:	42.7 mrad, nominal
Separation Angle at 9.4um:	68.4 mrad (40MHz), 102.5 mrad (60MHz)
Optical Rise Time	0.12usec / mm beam diameter
Diffraction Efficiency	> 85%, 90% typical

## RF DRIVERS

Fixed frequencies (2):	RFA4060-2K-BR
Programmable Synthesizer:	iSPA4060-2-BR

Options:	D1315 : Copper case parts (standard)
	D1315A : Aluminium case parts
	* : other wavelengths in the 2.5µm - 12µm range.

### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

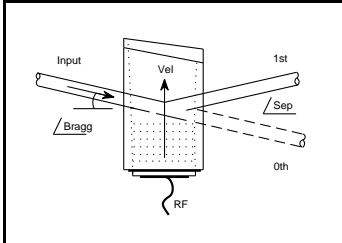
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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

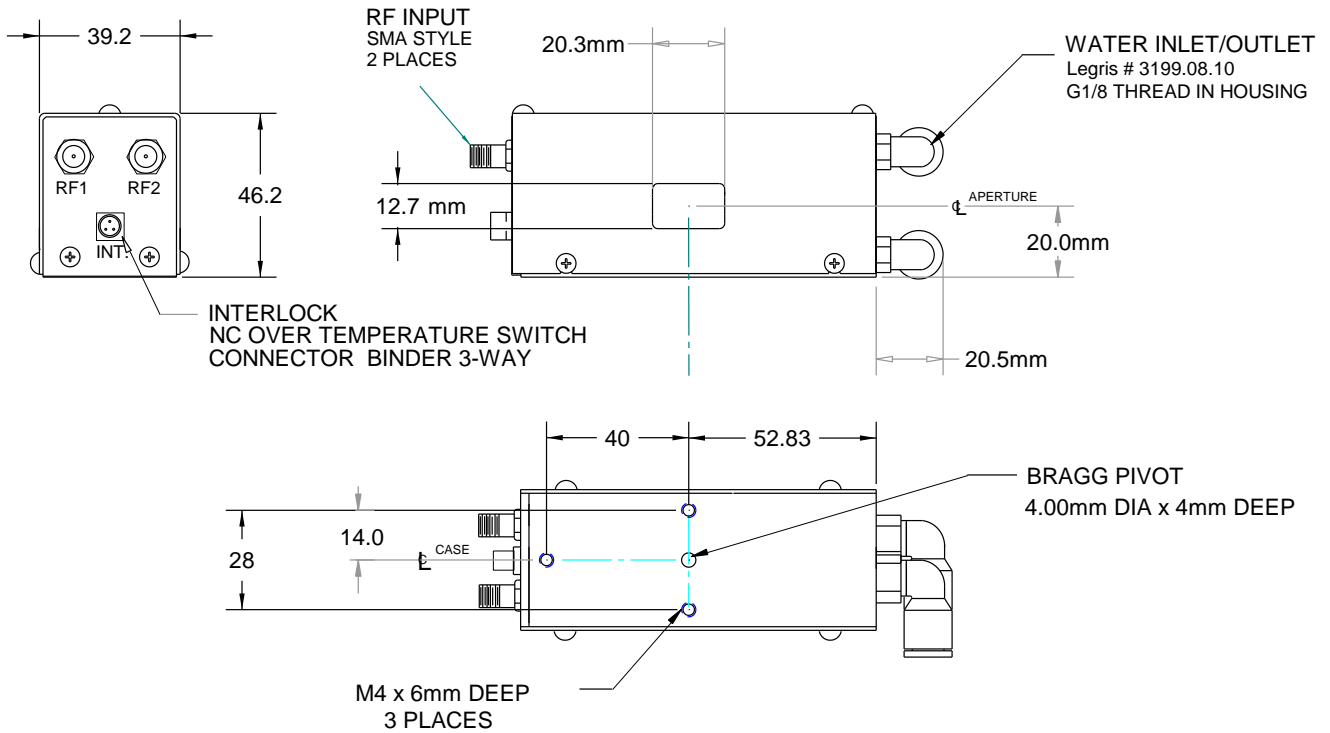
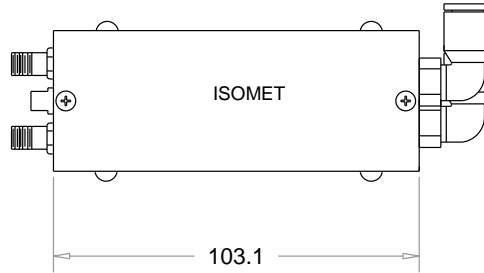


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## OUTLINE DRAWING



Dimensions: mm

Case parts in contact with coolant are fabricated from Te-Copper except D1315A

Refer application note AN1206 regarding Coolant Specification

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