

D1435-G50L-10-(6/4) High Power AO Deflector



2925

APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing

FEATURES

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

The D1435-G50 series are low loss multi-spot deflector/modulators optimized for duty cycled applications and designed to minimize thermal lensing and reduce beam degradation at high optical powers.

SPECIFICATIONS (TYPICAL)

Operating Wavelength:	9.3um, 9.4um or 9.6um (specify)
Interaction Material:	Germanium
Active Aperture :	10mm High x 15mm Wide
Clear Aperture :	12.7mm High x 20mm Wide
Centre Frequency (fc):	50MHz
RF Bandwidth:	20MHz
Recommended duty cycle	< 40%,
Maximum duty cycle	100% with caution
RF Power for Max. DE	< 180 Watts peak total (9.4um)
Static Insertion Loss:	< 5%
Maximum Optical Power:	600 Watts, 7mm dia. Gaussian beam
Laser Polarization:	Linear, Horizontal
Water Cooling (Minimum):	> 2 Liters/Minute @ < 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 (DE)	> 85%, 90% typical

RF DRIVERS

D1435: Copper case parts (standard)	
Fixed dual frequency:	RN5BR-4060-2-90
Programmable Synthesizer:	iCSA050-2-90-BR
D1435A: Aluminium case parts (option)	
Fixed dual frequency:	RN5-4060-2-90
Programmable Synthesizer:	iCSA050-2-90

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

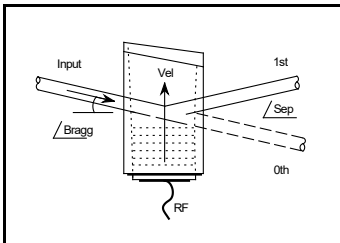
ISOMET CORP, 10342, Battleview Parkway, Manassas, VA20109, USA.

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



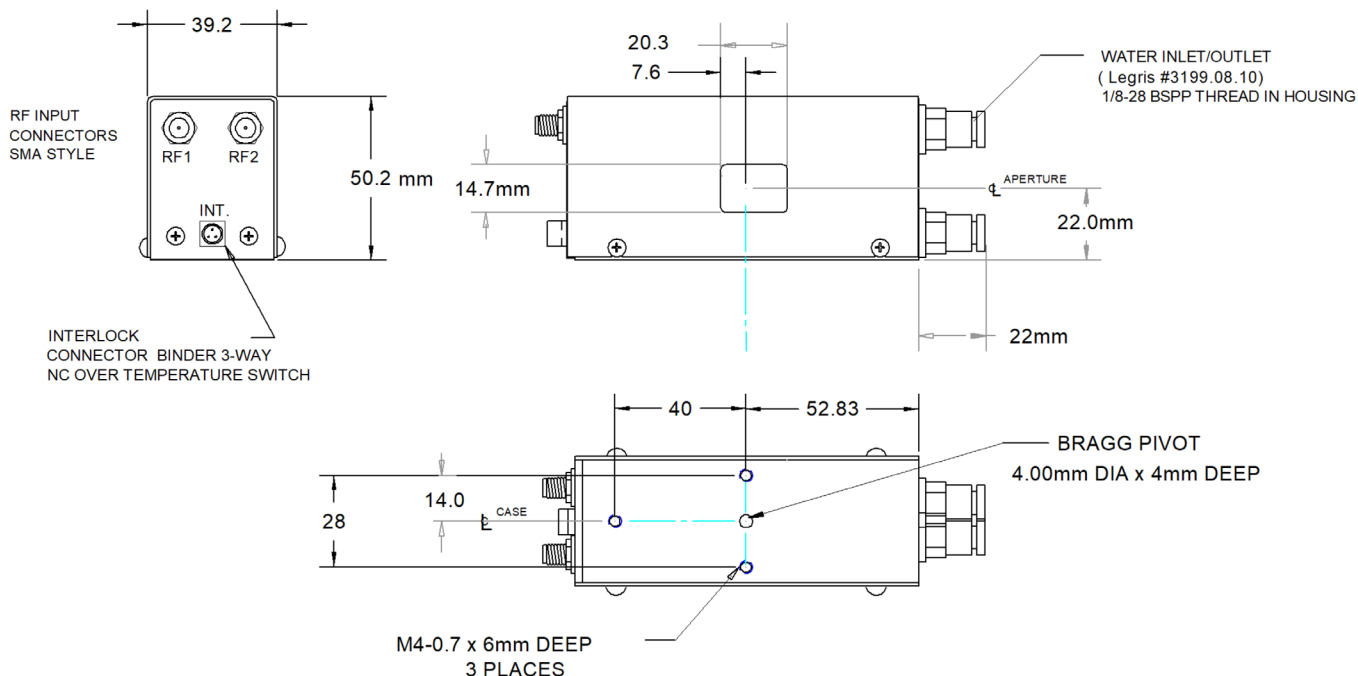
D1435-G50L-10-(6/4) High Power AO Deflector



2925

OUTLINE DRAWING

Dimensions: mm



Due to RF drive power dissipation, the MD1435 requires water-cooling to prevent thermal runaway (>2L/min at < 20degC). The integral NC thermal interlock switch opens at 32degC.

Refer application note AN1906 regarding Coolant Specification

The water-cooled case parts are copper. Aluminium case is available on request. It is recommended that a corrosion inhibitor is added to the cooling system.

Options

- D1435(A): Case parts in contact with coolant are fabricated from Aluminium
- 6/4: Straight water fittings to suit 6mm OD / 4mm ID pipe

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
ISOMET CORP, 10342, Battleview Parkway, Manassas, VA20109, 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