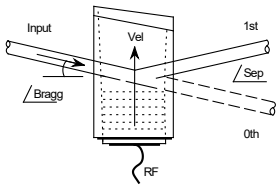


D1153-G60S-4

PRELIMINARY

High Power MIR AO Modulator

0521

The D1153 has been developed specifically to operate with high power unpolarized mid-IR fibre lasers. Typical applications include material processing, marking and engraving at 2um. Adopting the same techniques as applied to our very high power IR devices, these units are designed to minimize thermal lensing and reduce beam degradation at high optical powers.

SPECFICATIONS (TYPICAL)

Operating Wavelength:	1.9 – 2.1μm *
Interaction Material:	Germanium
Active Aperture:	5mmH x 14.5mmW
Centre Frequency (fc):	60MHz
FM Bandwidth:	25MHz
Diffraction Efficiency:	> 85% at fc, 90% typical
RF Power for Max. D/E	< 6 Watts total
Static Insertion Loss:	< 6% (2.1um)
Maximum Optical Power:	200 Watts, 3mm dia. Gaussian beam
Bragg Angle at 2um:	16.9 mrad (60MHz)
Separation Angle at 2um:	33.8 mrad (60MHz)
Scan Angle at 2um:	14.0 mrad (25MHz sweep)
Laser Polarization:	Any
Water Cooling (Minimum):	1 Liter/Min. @ < 20ºC

Modulation performance : 3 mm beam diameter

Optical Rise Time	0.83usec

Deflector Performance: 3 x 14.5mm beam

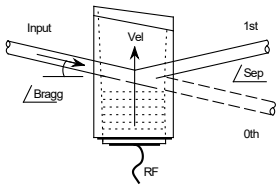
Diffraction Efficiency	> 80% across scan
Access Time:	4.0μsec
Resolution:	100
Deflector Drive Electronics:	RFA3060-2-4

The RFA360/2 exhibits progressive phase shifting across two RF output channels. This technique compensates for the variation in efficiency across the scan due to input Bragg angle errors

* Optional designs are available for other wavelengths in the 2.5μm - 11.2μm range.

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



D1153-G60S-4

PRELIMINARY

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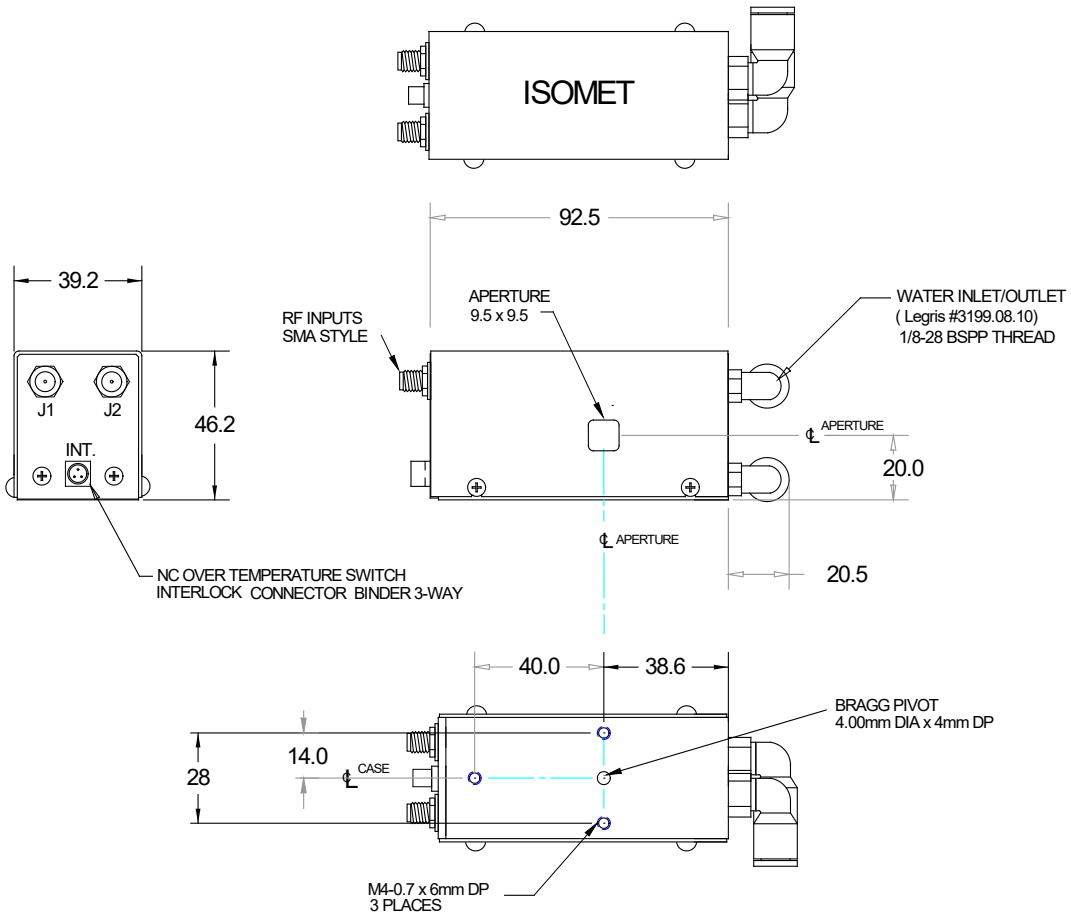
OUTLINE DRAWING

Dimensions: mm



Notes:

The D1153 requires water-cooling to prevent thermal runaway (>1L/min at < 20degC).
The integral NC thermal interlock switch opens at 32 deg C.

The water cooled case parts are aluminium. (Copper case option available)
It is strongly recommended that a corrosion inhibitor such as “Optishield” is added to the cooling system.

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