

M1192-G40-12

High Power AO Modulator/Deflector



0115

APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing
- Hole Perforation

FEATURES

- Low loss
- High Optical Power
- Large Aperture

The M1192 is a large aperture industrial IR modulator designed to minimize thermal lensing and reduce beam degradation at high optical powers.

SPECIFICATIONS (TYPICAL)

Operating Wavelength *	A/R @ 9.1-9.6 μ m or 10.2-10.8 μ m
Interaction Material:	Germanium
Clear Aperture:	16mmH x 50mmW
Active Aperture:	12mmH x 30mmW
Centre Frequency (fc):	40MHz
FM Bandwidth:	5MHz
Diffraction Efficiency:	> 85% at fc, 90% typical
RF Power for Max. D/E	< 190 Watts total
Static Insertion Loss:	< 5%
Maximum Optical Power:	700 Watts, 10mm dia. Gaussian beam
Bragg Angle at 10.6 μ m:	38.6 mrad
Separation Angle at 10.6 μ m:	77.1 mrad
Laser Polarization:	Linear, Horizontal w.r.t. mounting surface
Water Cooling (Minimum):	> 2 litre/minute, @ < 20°C
Modulation with 10 mm beam diameter:	
Optical Rise Time	1.2 usec
Modulator Drive Electronics:	RFA641 (40MHz)

Cooling

Due to RF drive power dissipation, the M1192 requires water-cooling to prevent thermal runaway. The integral NC thermal interlock switch opens at 32 degC. The water cooled case parts are aluminium. It is strongly recommended that a corrosion inhibitor is added to the cooling system.

Options:

-BR: Brass case parts

* Alternative A/R coatings available in the 2.5 μ m - 12 μ m wavelength range.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

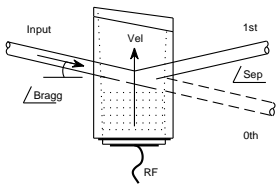
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

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



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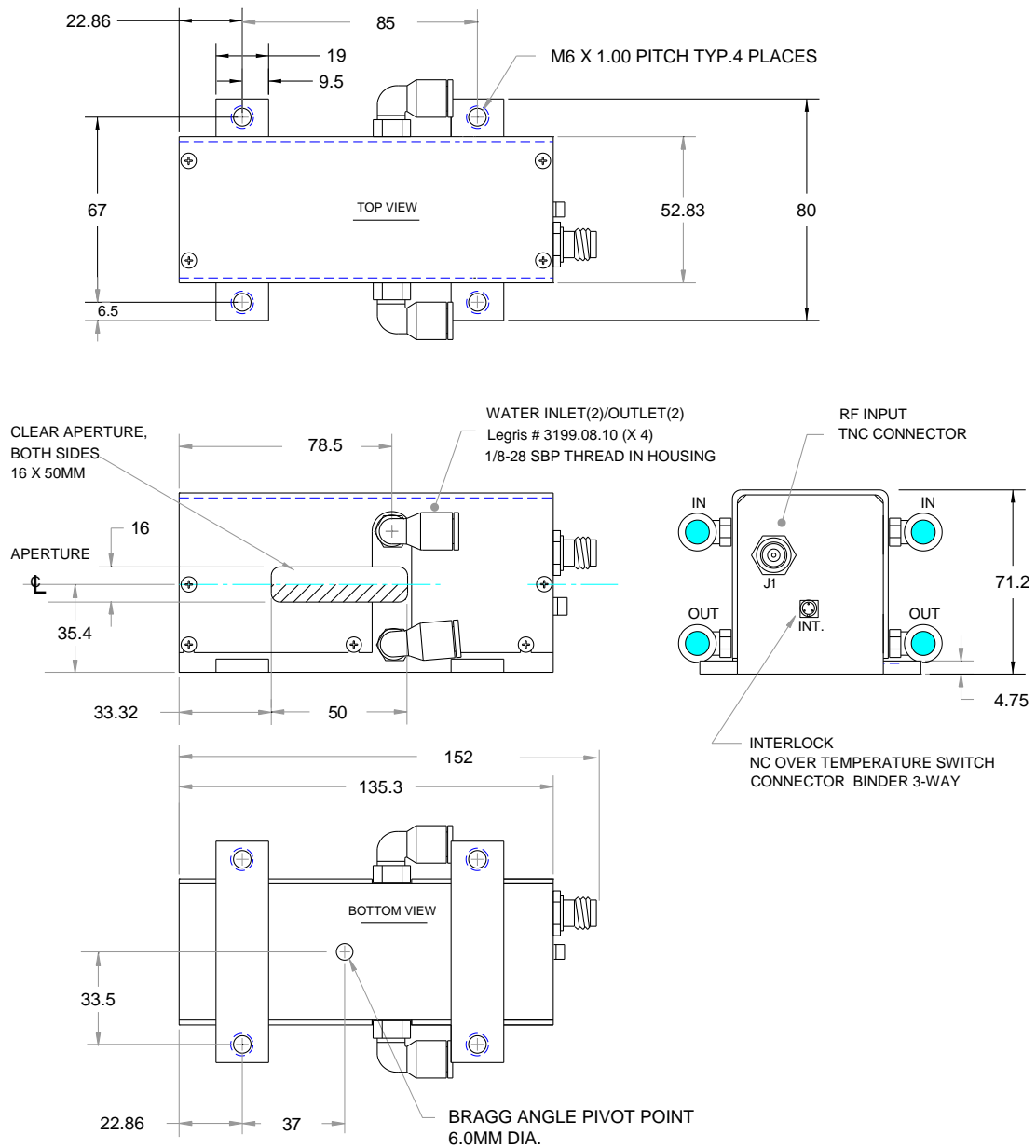
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OUTLINE DRAWING

Dimensions: mm



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