

# M1099-T40L-2(M)

## Acousto-Optic Modulator



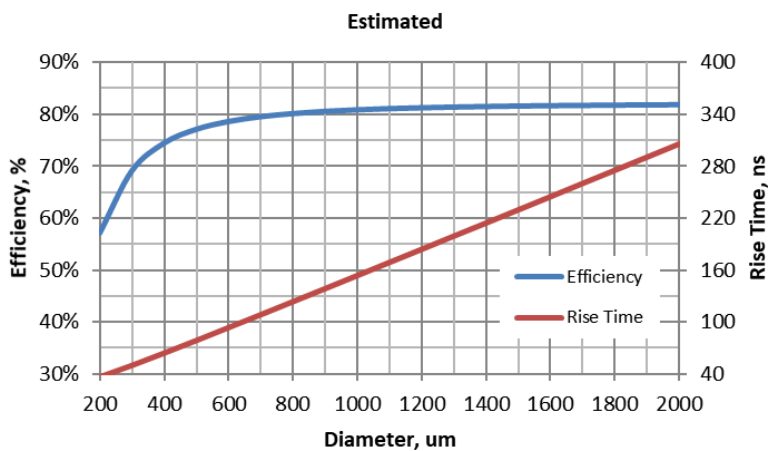
0419

Compact AO Modulator designed for High Power NIR Fibre and DPSS laser applications.  
AOM is supplied with a removable water cooled base plate.

### SPECIFICATIONS

Spectral Range:	0.36 - 1.5 $\mu$ m
Standard A/R Wavelengths:	1.9 - 2 $\mu$ m *
Optical Power:	100 Watts CW *
Interaction Medium:	Tellurium Dioxide (TeO <sub>2</sub> )
Acoustic Velocity:	4.2mm/ $\mu$ s
Centre Frequency (Fc):	40MHz
RF Bandwidth:	10MHz
Input Impedance:	50 $\Omega$ Nominal
VSWR:	<1.5:1 @ Fc
Clear Aperture:	6.5mm
Active Aperture Height:	2mm
Static Insertion Loss	<3% at 2.0 $\mu$ m
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Any / vertical preferred *
Static Contrast Ratio:	>1000:1 min (>2000:1 typical)

### TYPICAL PERFORMANCE at 1.9 $\mu$ m \*

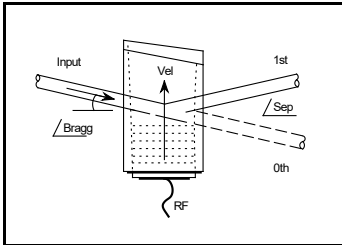


	<b>1900nm</b>
RF Power (nominal):	7 W
Bragg Angle:	9.05 mrad
Separation Angle:	18.1 mrad

\* see foot notes

**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](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**



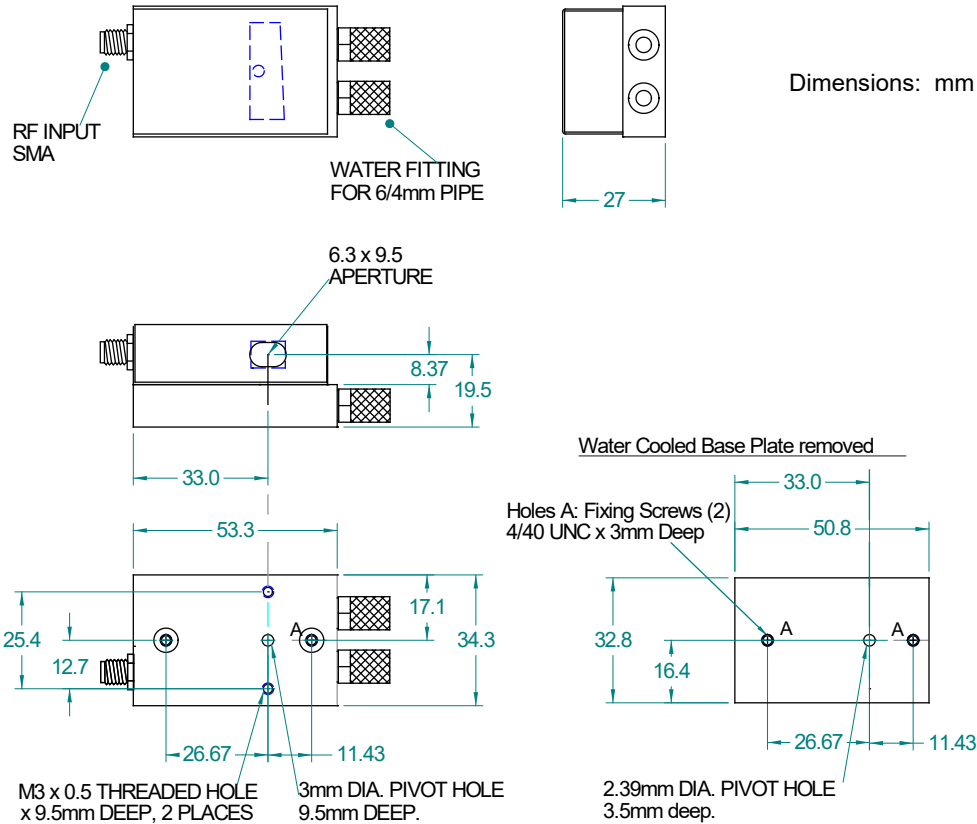
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### OUTLINE DRAWING



Suffix -M: M3 metric fixing threads standard.

**Mount device to heat conducting surface or to supplied water cooled base plate**

### RF DRIVE ELECTRONICS

Digital modulation: 521C-7

Analog modulation: 531C-7

Dual modulation: 551F-7

#### \* Notes:

- PLEASE SPECIFY OPERATING WAVELENGTH.
- For higher powers please contact Isomet.
- Approximately 10% efficiency difference between v-pol and h-pol for the same RF drive power.
- Estimated efficiency applies to single mode input.

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