

M700-G40L-7, -8, -9

High Power AO Modulator



3021

APPLICATIONS

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

FEATURES

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

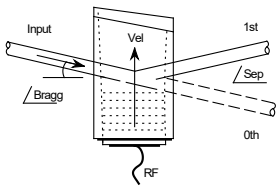
The AOM700 series have been designed to minimize thermal lensing and reduce beam degradation at high optical powers.

SPECIFICATIONS (TYPICAL)

Operating Wavelength:	9.3, 9.4, 9.6 or 10.6um (specify)*		
Interaction Material:	Germanium		
Active Aperture:			
M700-G40L-7	7mmH x 30mmW		
M700-G40L-8	8mmH x 30mmW		
M700-G40L-9	9mmH x 30mmW		
Centre Frequency:	40MHz		
RF Bandwidth:	>10MHz		
RF Power for max' efficiency	<u>-7</u>	<u>-9</u>	
9.3/9.4um	< 120 W	< 150 W	
9.6um	< 130 W	< 165 W	
10.6um	< 160 W	< 200 W (peak, duty cycle)	
Static Insertion Loss:	< 4%		
Maximum Optical Power:	600 Watts, 7mm dia. Gaussian beam		
Bragg Angle:	<u>9.3um</u>	<u>9.6um</u>	<u>10.6um</u>
33.9mrad	34.9 mrad	38.6 mrad	
Separation Angle:	67.7mrad	69.8 mrad	77.1 mrad
Laser Polarization:	Linear, Horizontal		
Water Cooling (Minimum):	> 2L/Min. @ < 20°C		
<u>Modulator performance:</u>			
Optical Rise Time	0.12usec / mm beam diameter		
Diffraction Efficiency	85% minimum, 90% typical		
Modulator Drive Electronics:	RFA641 (40MHz)		
Options:			
-BR	: Brass case parts		
-P	: Air purge inlets		
*	: other wavelengths available over 2.5um - 11.2um range.		

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
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Quality Assured.
In-house: Crystal Growth,
Optical Polishing,
A/R coating, Vacuum Bonding



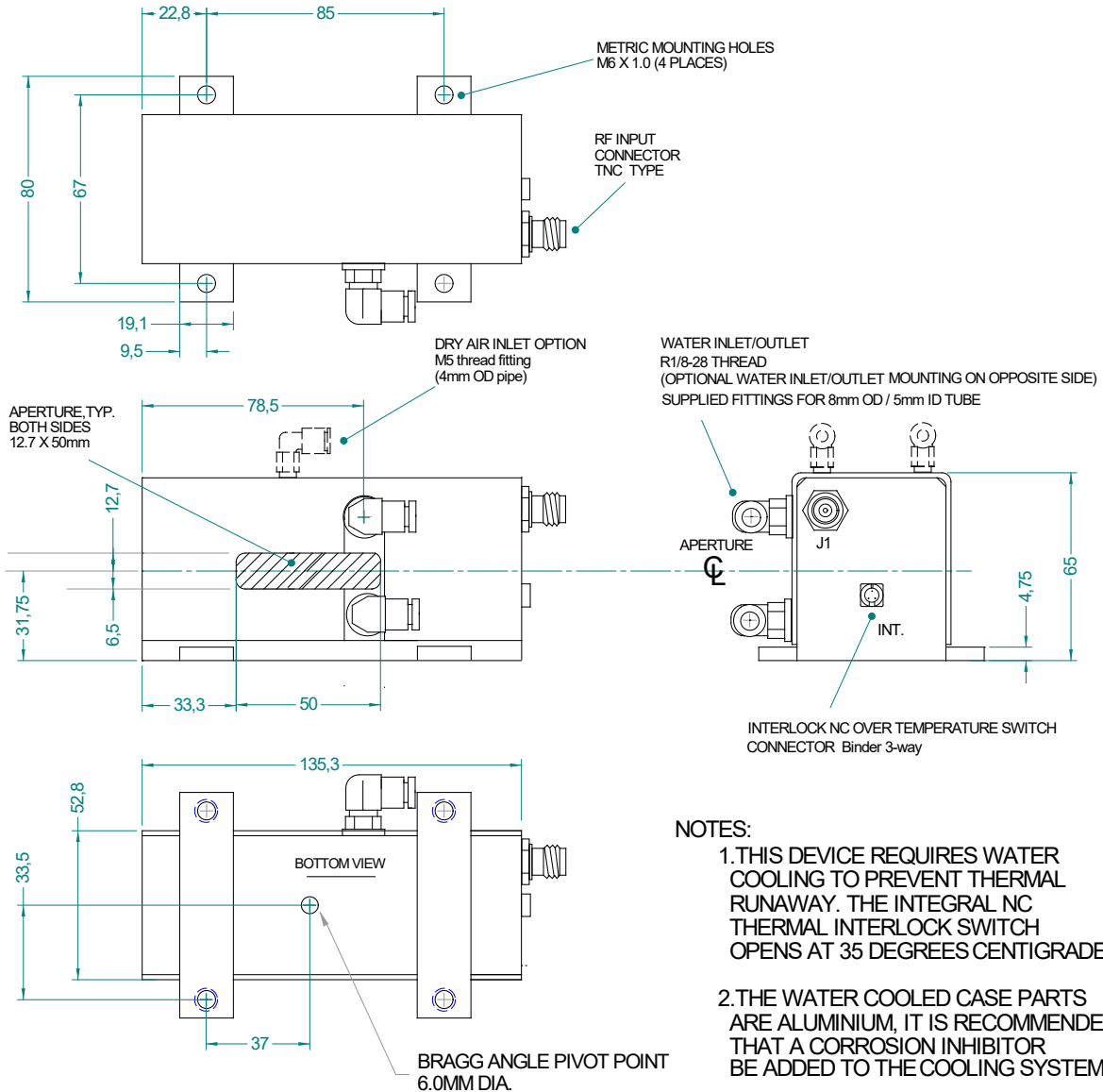
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OUTLINE DRAWING



NOTES:

1. THIS DEVICE REQUIRES WATER COOLING TO PREVENT THERMAL RUNAWAY. THE INTEGRAL NC THERMAL INTERLOCK SWITCH OPENS AT 35 DEGREES CENTIGRADE.

2. THE WATER COOLED CASE PARTS ARE ALUMINIUM, IT IS RECOMMENDED THAT A CORROSION INHIBITOR BE ADDED TO THE COOLING SYSTEM.

Refer application note AN1906 regarding Coolant Specification

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