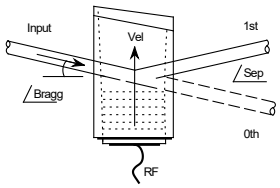


D1011-G70L-10

High Power AO Deflector

ISOMET

2121

APPLICATIONS

- IR Imaging
- Laser Radar (Ranging, Tracking)
- Material Processing

FEATURES

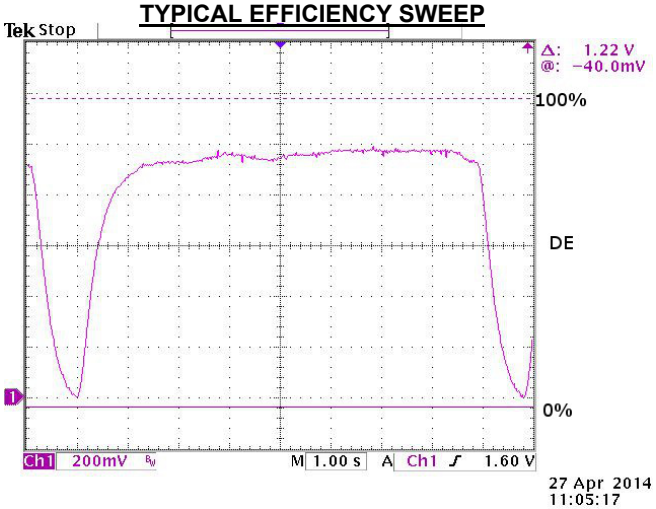
- High Speed, High Resolution
- High Optical Power Capability
- Minimal Intensity Variation

The D1011 and associated RF driver electronics have been designed to maintain the Bragg relationship over the specified sweep bandwidth. This provides minimal variation of diffraction intensity across the scan angle. Diagnostics provide real time temperature measurement and RF power monitoring.

SPECIFICATIONS

Operating Wavelength*:	9.27μm (standard)	
Interaction Material:	Germanium	
Centre Frequency (fc):	70MHz	
FM Bandwidth:	40MHz	
Diffraction Efficiency:	> 80%	
D/E Variation vs. Freq.:	< 5% (with power and phase programming)	
RF Power for Max. D/E	< 240 Watts total	
Static Insertion Loss:	< 4%	
Optical Power (max):	600 Watts (CW full aperture)	
Bragg Angle:	59.0 mrad.	
Separation Angle:	118.0 mrad. (@ fc)	
Scan Angle:	67.4 mrad.	
Active Aperture **:	10mmH x 40mmW	10mmH x 60mmW
Access Time:	7.3μsec	10.9μsec
Resolution:	290	436
Laser Polarization:	Linear, Horizontal	
Water Cooling (Minimum):	2Liters/Min. @ < 20ºC	
Drive Electronics ***:	iMS4-, AR1-70T-4-90	

TYPICAL EFFICIENCY SWEEP



("Soft" corners in this DE sweep response are due to low detector bandwidth)

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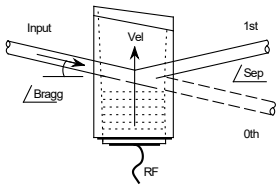
Tel: (703) 321 8301 Fax: (703) 321 8546
E-mail: ISOMET@ ISOMET.COM ***Web Page: WWW.ISOMET.COM***

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



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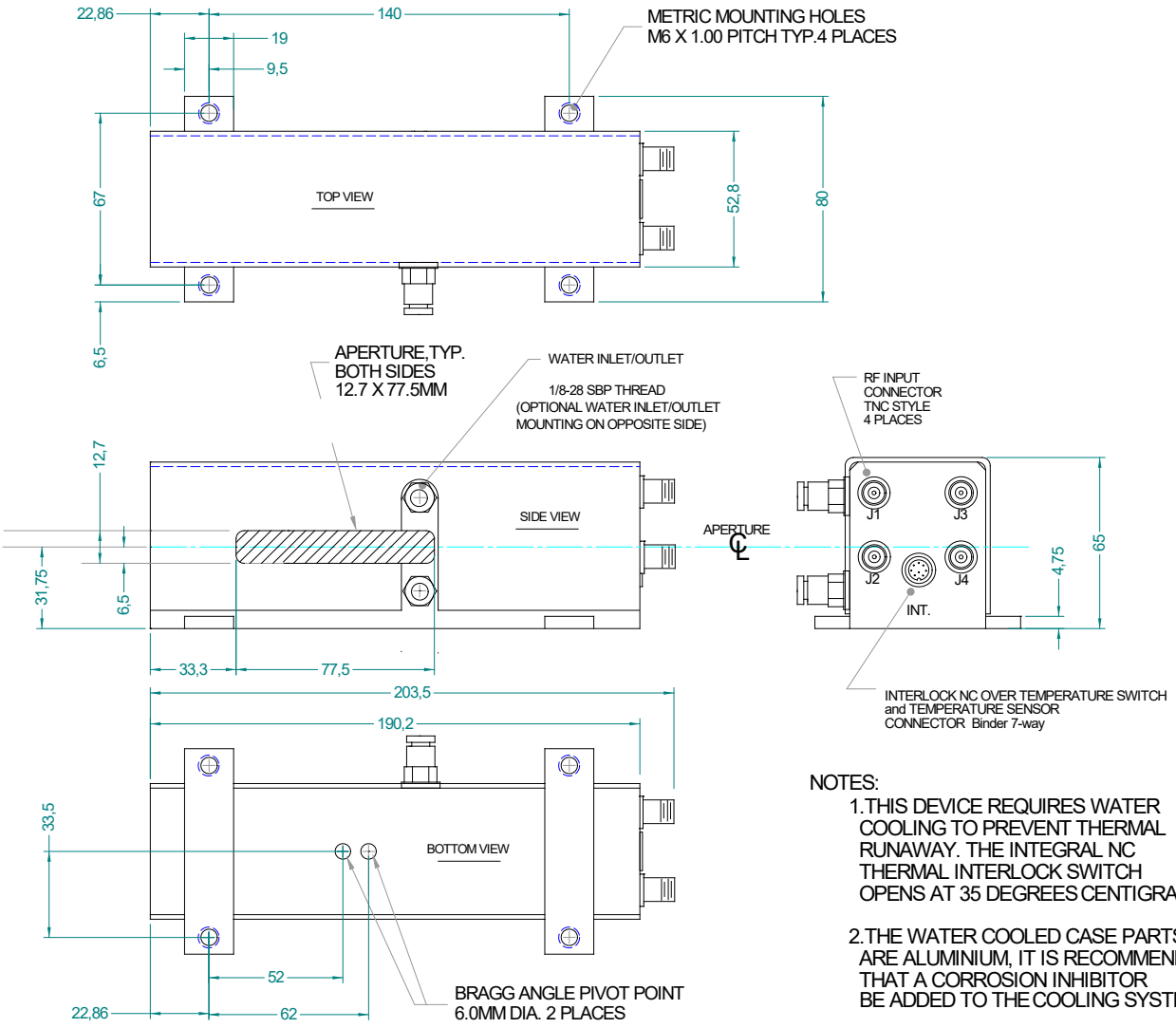
OUTLINE DRAWING

Dimensions: mm



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.

* Optional designs are available for other wavelengths in the 2.5μm - 12μm range.

** Custom aperture sizes up to 10mmH x 75mmW are available.

*** The iMS4- with AR1-70T-4-90 can provide progressive phase shifting across the four RF channels. (Active compensation for Bragg angle error and variation in efficiency across the scan).

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