

1209-7-1112M



250W IR Acousto-Optic Modulator

(Low corrosion Case)

0115

SPECIFICATIONS

Spectral Range:	2.5 μ m - 11 μ m
Operating Wavelength:	9.3 or 10.6 μ m (others on request)
Interaction Medium:	Single Crystal Germanium
Acoustic Velocity:	5.5mm/ μ s
Centre Frequency (fc):	40MHz
RF Bandwidth (Δ f):	20MHz
Input Impedance:	50 Ω
Input VSWR:	< 1.7:1 at 40MHz
Optical Insertion Loss:	< 7%
Reflectivity:	< 0.5%/Surface
Laser Polarization:	Linear Horizontal, Parallel to Base
Optical Power (Maximum):	250 Watts
Active Aperture:	7 mmH x 14 mmL
Water Cooling (minimum):	1L/minute at < 20 $^{\circ}$ C
Outline Dimensions:	(See reverse)

TYPICAL PERFORMANCE

Input beam diameter:	3mm	7mm
Optical access time:	0.35 μ s	0.83 μ s
Diffraction Efficiency:	> 85%	> 85%
Optical Power *	100 Watts	250 Watts
Bragg Angle:	<u>9.3μm</u> 33.9 mrad	<u>10.6μm</u> 38.6 mrad
Separation Angle:	67.7 mrad	77.1 mrad
RF Power (typ):	55 W	75 W

* For higher powers please contact Isomet

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

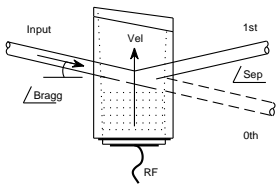
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

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**



1209-7-1112M



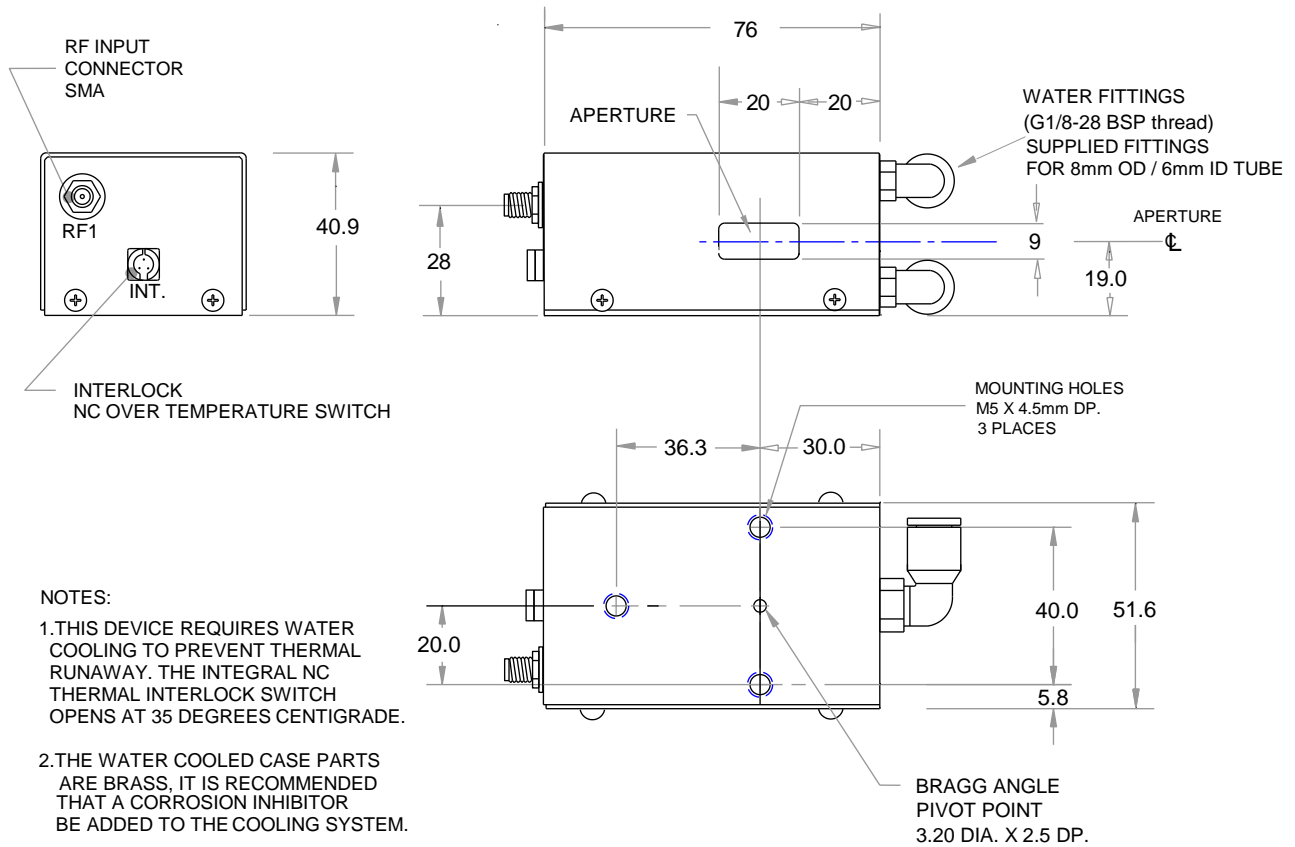
250W IR Acousto-Optic Modulator
(Low corrosion Case)

0115

OUTLINE DRAWING

Dimensions: mm

All case parts in contact with coolant are fabricated in Brass



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 BRASS, IT IS RECOMMENDED THAT A CORROSION INHIBITOR BE ADDED TO THE COOLING SYSTEM.

Refer application note AN0901 regarding Coolant Specification

DRIVERS

Modulator Driver/Amplifier
Deflector Driver/Amplifier

RFA241-BR
RFA321-BR

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