

# D600-G50-7, -8, -9



## High Power AO Deflector / Dual Spot AOM

0621

### APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing

The D600 high power IR deflectors have been designed to minimize thermal lensing and reduce beam degradation for CW and high duty cycle CO<sub>2</sub> laser applications.

### SPECIFICATIONS (TYPICAL)

A/R Wavelength: 9.4um, 9.6um or 10.6um (as specified)  
 Interaction Material: Germanium  
 Static Insertion Loss: < 5%  
 Maximum Optical Power: 600 Watts, 7mm dia. Gaussian beam  
 Laser Polarization: Linear, Horizontal  
 Water Cooling (minimum): > 2 Liter/Min. @ < 20°C

Active Aperture: H=7 7mmH x 30mmW  
 H=8 8mmH x 30mmW  
 H=9 9mmH x 30mmW

VSWR < 2:1 at 60W per RF input

	<b>D600-G50-H</b>	<b>D600-G40-H*</b>
Centre Frequency (fc):	50 MHz	40 MHz
Minimum RF Scan Bandwidth:	20 MHz	16 MHz

Combined RF Power for maximum Diffraction Efficiency:

Active Aperture	9.3um	9.6um	10.6um
H=7 mm	105W	115W	140W
H=8 mm	120W	130W	160W
H=9 mm	135W	145W	180W

Angles	9.3um	9.6um	10.6um
Centre Freq.	50MHz	50MHz	50MHz
Bragg Angle, mrad	42.4	43.6	38.3
Separation Angle, mrad	84.8	87.3	96.5
Max. Scan Angle, mrad	33.8	34.9	38.6

#### D600-G50-8 Deflector Performance for 7mm (H) x 30mm (W) beam

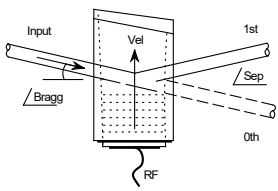
Diffraction Efficiency > 80% across specified scan  
 Access Time: 5.5µsec  
 Resolution: 100  
 Deflector Drive Electronics: \*\* iMS4-L, RFA200-2 for scanning applications  
 RFA4060-2K for dual spot modulation

\* See alternate data sheet.

\*\* The iMS4-L /RFA200-2 applies progressive phase shifting across the two RF input channels. This feature compensates for the variation in efficiency across the scan due to Bragg angle errors.

**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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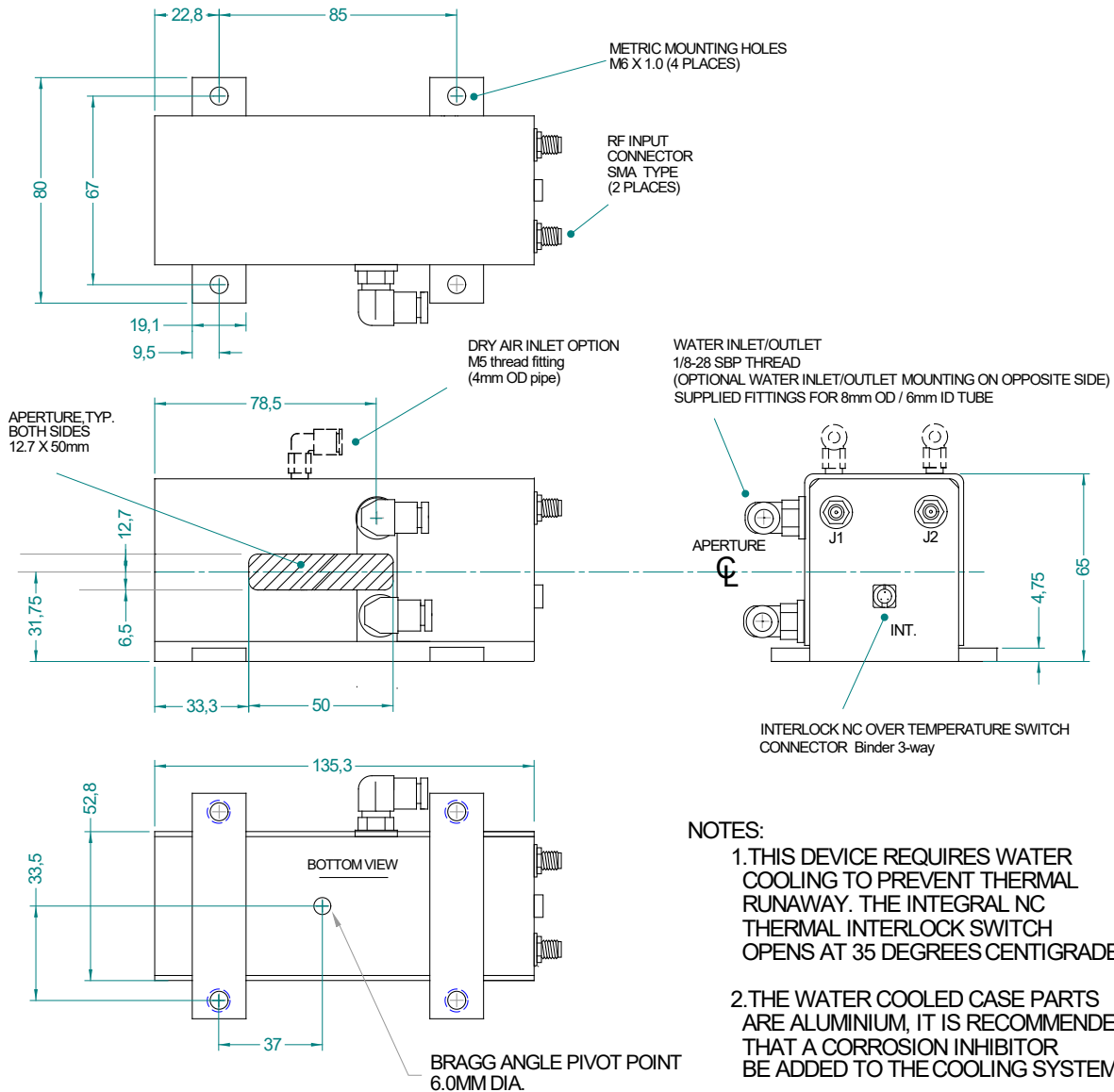


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### OUTLINE DRAWING

Dimensions:  
mm



Refer application note AN1906 regarding Coolant Specification  
Alternative low corrosion Brass case parts, add option '-BR'

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