

D600-G40-7, -8, -9

High Power AO Deflector



1121

APPLICATIONS

- Material Processing
- Via Hole Drilling
- Surface texturing

The D600-G40 high power IR deflectors have been designed to minimize thermal lensing and reduce beam degradation for CW and high duty cycle CO₂ 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

	D600-G40-H	D600-G50-H*
Centre Frequency (fc):	40 MHz	50 MHz
Minimum RF Scan Bandwidth:	16 MHz	20 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.	40MHz	40MHz	40MHz
Bragg Angle, mrad	33.9	34.9	38.6
Separation Angle, mrad	67.7	69.8	77.1
Max. Scan Angle, mrad	27	28	30.8

D600-G40-8 Deflector Performance for 7mm (H) x 30mm (W) beam

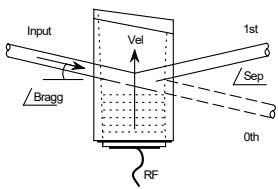
Diffraction Efficiency	> 80% across specified scan
Access Time:	5.5µsec
Resolution:	80
Deflector Drive Electronics: **	iMS4-L, RFA200-2 for scanning applications

* 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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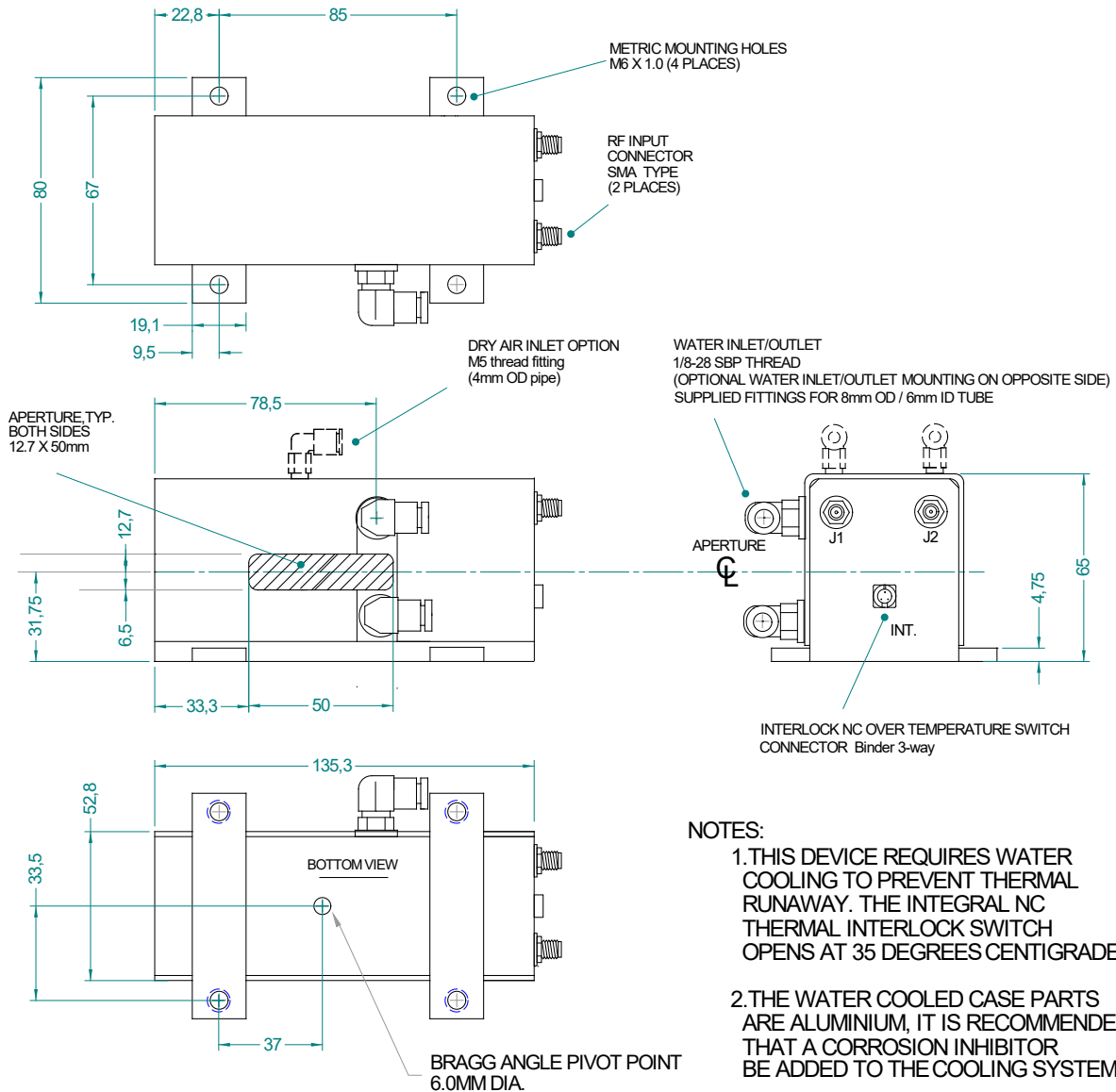
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OUTLINE DRAWING

Dimensions:
mm



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

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