

## Product Overview

This AO modulator is a water cooled AOM to be used with high power linearly polarised lasers at 1030, 1064 or 1080 nm. It is made of high-quality grade fused silica with hard coating and low reflectivity. User will benefit from its low insertion losses and high damage threshold.

## Features

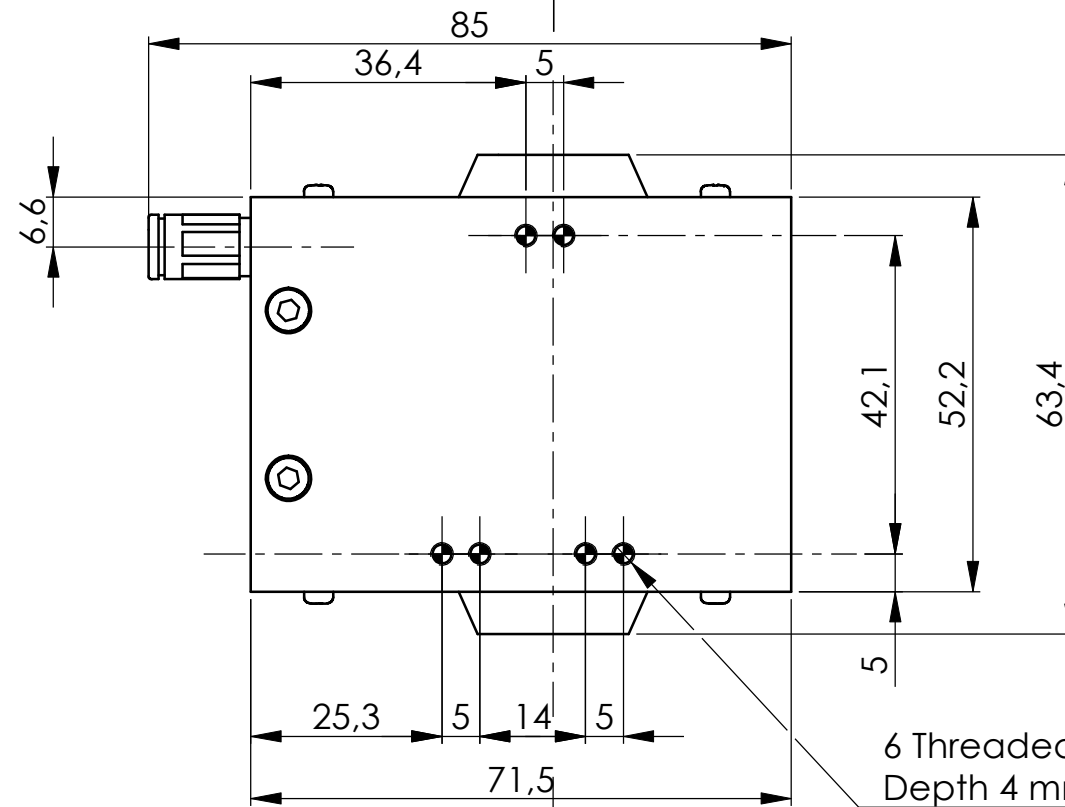
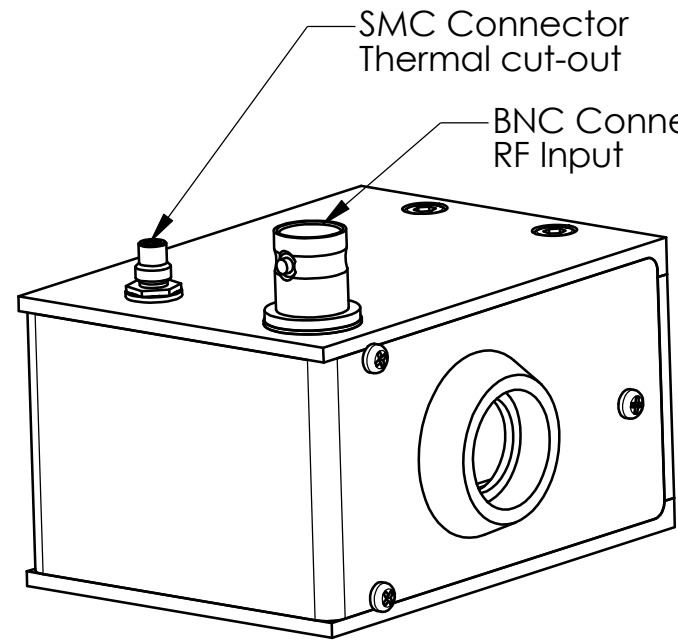
- Large active aperture
- Linear polarisation
- High diffraction efficiency
- High damage threshold
- Water cooling



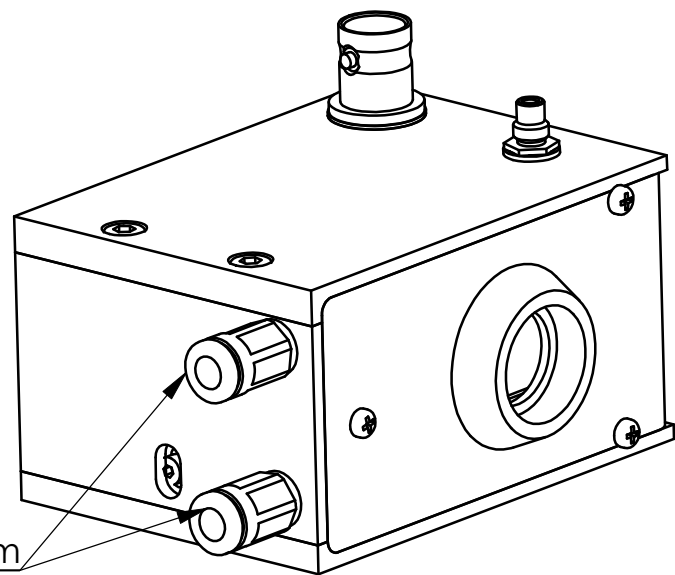
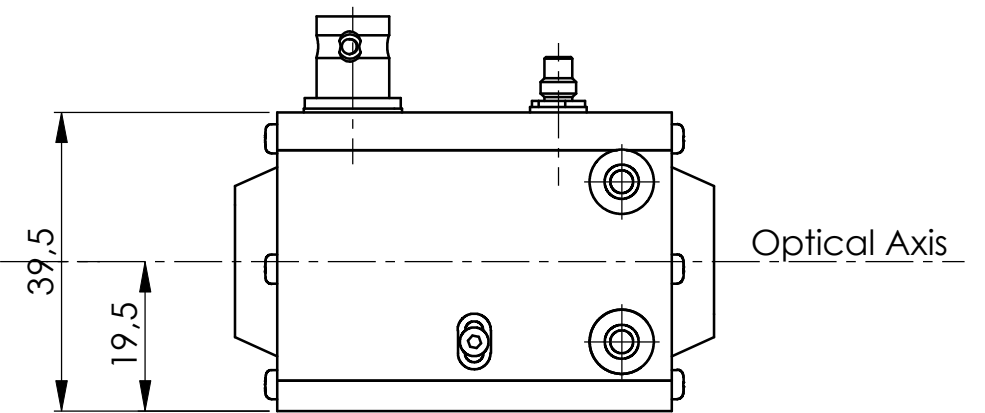
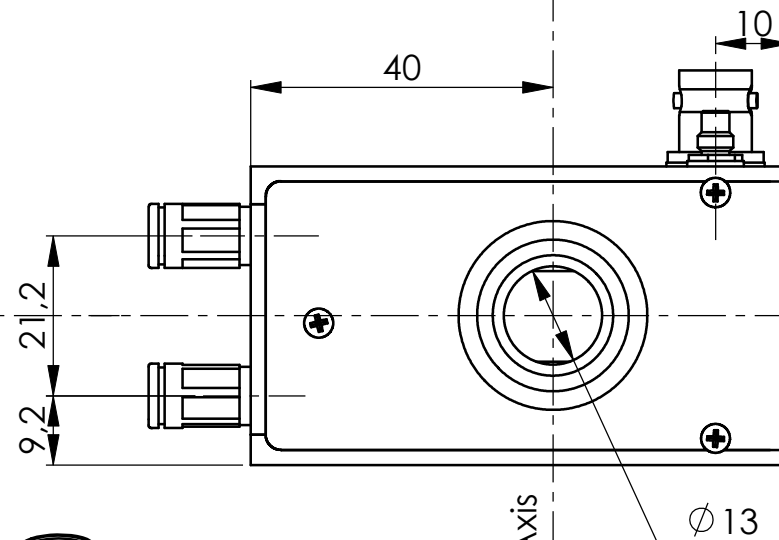
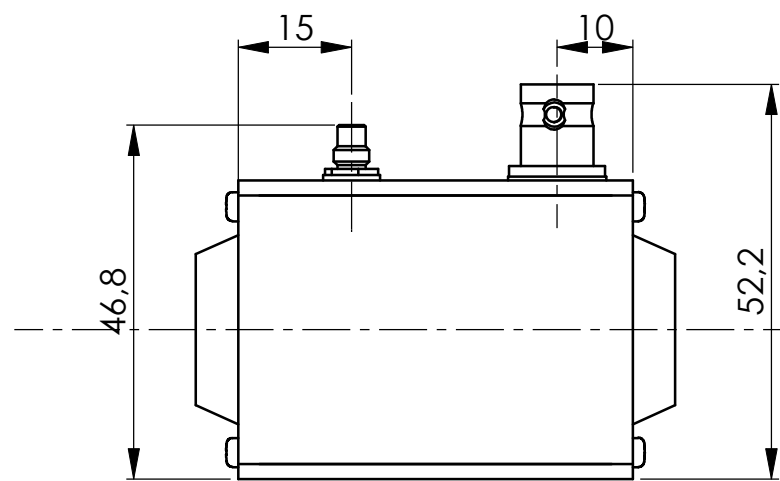
	Units	Min	Nom	Max
Material-Acoustic mode-Velocity		Fused Silica [L] – 5960 m/s		
Optical Wavelength range ( AR coated) ( $\lambda$ )	nm	1030	1064	1080
Carrier Frequency / Frequency shift	MHz	+/-40.68		
Transmission	%	95		
Input / Output Polarization with ref to baseplate		Linear vertical		
Active aperture	mm <sup>2</sup>	3 x 3		
Beam diameter (1/e <sup>2</sup> )( $\Phi$ )	mm	1		2.1
Rise time	ns	110		231
Analog Amplitude Modulation Bandwidth (-3dB) (F <sub>-3dB</sub> )	MHz			4.4
Separation Angle (0-1)	mrd	7	7.1	7.2
Static Extinction Ratio	dB	30		
*Diffraction Efficiency	%	80		
Optical power density	W/mm <sup>2</sup>	500		
Input impedance	$\Omega$		50	
V.S.W.R.			< 1.2:1	
Thermal Security interlock/connector		SMC		
RF Power (P)	W		30	
Connector RF		SMA female		
Size	mm <sup>3</sup>	52.2 x 62 x 37.5		
Weight	g		350	
Packaging		IN PRO 020		
Heat exchange		Water cooling-Nom 250ml/min 20 °C		
Operating Temperature (non condensing)	°C	+10	+25	+40
Storage Temperature (non condensing)	°C	-40		+65
RoHS Compliance		Yes		

\*Beam diameter dependant

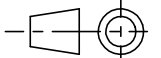
$$T_r = 0.66 \frac{\phi}{V} * F_{-3dB} = \frac{0.48}{T_r} * \Delta\theta = \frac{\lambda F}{V} * \frac{P_1}{P_2} = \frac{\lambda_1}{\lambda_2}$$



6 Threaded Holes M3  
Depth 4 mm Maxi



Water Connector  
For external diameter Tube = 4 or 6mm

B	25/06/07	E.D	Mise en plan + Precision de hauteur de l'axe optique
A	26/03/04	O.G.B	Plan initial / Initial Drawing
Indice Index	Date	Auteur Author	Modifications
Conception Design	E.D	PLAN D'INTERFACE / OUTLINE DRAWING	
Vérification Checking	L.F		
Tolérance Tolerance	ISO 2768mK	Référence / Reference	
Echelle Scale	1:1	IN-PRO-020	
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A.A. SA OPTO-ELECTRONIC DIVISION  
18, rue Nicolas Appert  
F-91898 ORSAY  
tel : 08 11 09 76 76  
fax : 01 76 91 50 31