

DTSX-xx, DTSXY-xx

Product Overview

These high resolution deflectors operate with TeO₂ shear mode and hence offers a large scan angle, high resolution and larger aperture up to 7.5 mm. Associated to the appropriate RF driver, these AOD provide high precision and accuracy which is required for most application such as optical tweezers, biomedical diagnostics and many others. They are available with both 1-axis and 2-axis configurations.

FEATURES

- Low RF power.
- High diffraction efficiency
- High resolution.
- Multiline tone operation.



SPECIFICATIONS (T=25°C)

PARAMETER		RATING	UNIT
Material-Acoustic mode-Velocity		TeO ₂ [S] - 650	m/s
Optical wavelength(λ)*		On request in 399-1550	nm
Optical Transmission		>95 per axis	%
Input / Output Polarization		Linear/90° polarisation flip per axis	
Rise/fall time (T _r)		1	μs/mm
Access time (T _a)		1.5	μs/mm
Diffraction efficiency	1-axis	>70	%
	2-axis	>40, nom 50	
Input impedance		50	Ω
V.S.W.R.		< 1.2:1	
Weight		Nom 60	g
Packaging	1-axis	IN PRO 163	
	2-axis	Standard IN PRO 161 Compact IN PRO 180	
Operating Temperature (non condensing)		+10 to +40	°C
Storage Temperature (non condensing)		-20 to +50	°C
RoHS compliance		Yes	

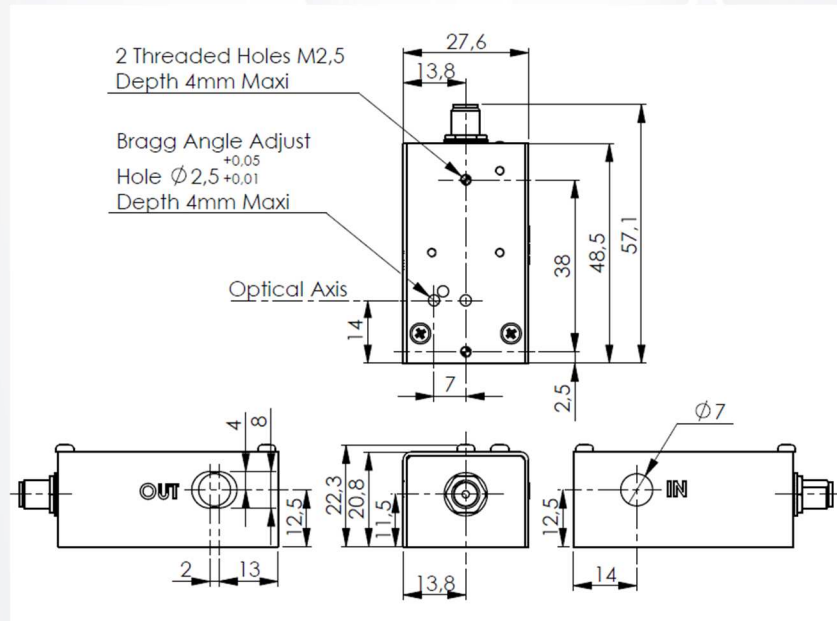
*Operating wavelength(s) to be specified.

Some examples for 1-axis & 2-axis versions:

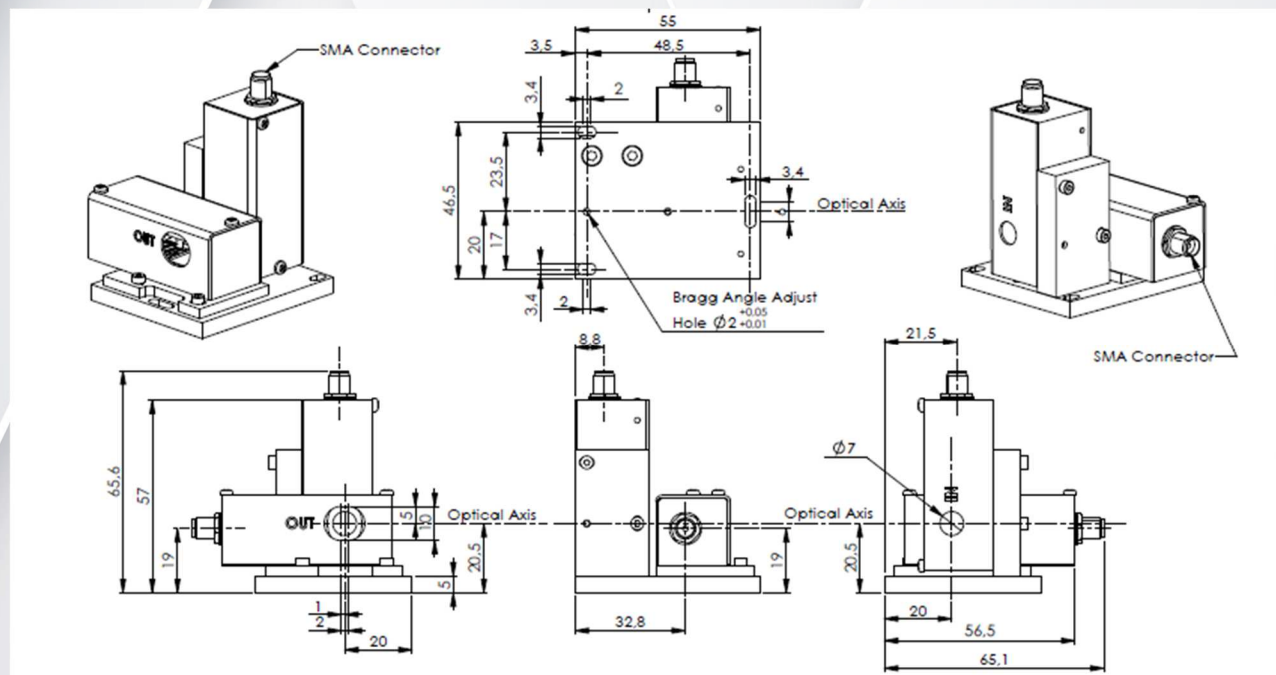
	DTSX(Y)-400-405	DTSX(Y)-400-532	DTSX(Y)-400-800	DTSX(Y)-400-1064	DTSX(Y)-A6-1550
Wavelength (nm)	405	532	780-820	1064	1550
Active Aperture(mm ²)	7.5 x 7.5	7.5 x 7.5	7.5 x 7.5	7.5 x 7.5	6 x 6
Frequency range (MHz)	45	50	36	30	18
Scan angle(mrd/mrd ²)	28	41	44@ 800nm	49	43
Resolution (TaΔF)	405	450	324 @800 nm	270	135
RF power (W)	<1	<1	<2	<2.2	<2.5
Optical power (W/mm ²)	0.1	5	10	10	10

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OUTLINE DRAWING 1-axis, IN PRO 163, mm



OUTLINE DRAWING 2-axis standard housing, IN PRO 161, mm



DTSX-xx, DTSXY-xx

OUTLINE DRAWING 2-axis compact housing, IN PRO 180, mm

