

# $\theta_x\theta_y$ axes | S30.T2S/K

## Piezo Tip/Tilt Platform



## Introduction

S30.T2 is an open-loop  $\theta_x$ ,  $\theta_y$  piezo tip/tilt platform, which is designed for highly-dynamic applications, with unloaded resonance frequency up to 15kHz.

### Characteristics >>

- Small size
- Nanoradian resolution
- Unloaded resonant frequency: 15kHz
- High-dynamic
- Open-loop

### Applications >>

- Laser scanning
- Beam deflection
- Beam stabilization
- Light filter
- Image processing and stabilization
- Error correction for polygonal mirrors
- Optical switch
- Active and adaptive optics



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## Technical Data >>

Type	S30.T2S	S30.T2K	Units
Integrated sensor	SGS	-	
Active axes	$\theta_x, \theta_y$		
Tilt angle(0~120V)	$3/\pm 1.5$		mrad $\pm 10\%$
Resolution	0.03 (<0.01")	0.03 (<0.01")	$\mu\text{rad}$
Unloaded resonant frequency	15		kHz $\pm 20\%$
Linearity	0.2/-		%F.S.
Repeatability	0.1/-		%F.S.
Resonant frequency @loading $\varnothing 12.5 \times 3\text{mm}$ mirror	10		kHz $\pm 20\%$
Distance from pivot point to platform surface	4.2		mm $\pm 0.2\text{mm}$
El. capacitance	1.6/axis		$\mu\text{F} \pm 10\%$
Operating temperature <sup>[1]</sup>	-20~80		$^{\circ}\text{C}$
Material	Titanium, steel		
Mass	30		g $\pm 5\%$
Driving channels	3, includes one constant voltage output		
Height(L)	30		mm
Cable length <sup>[2]</sup>	1.5		m $\pm 10\text{mm}$

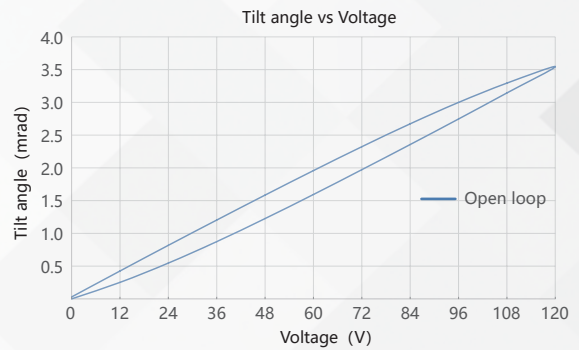
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

Note: The parallelism of the moving platform is about 20 $\mu\text{m}$ , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

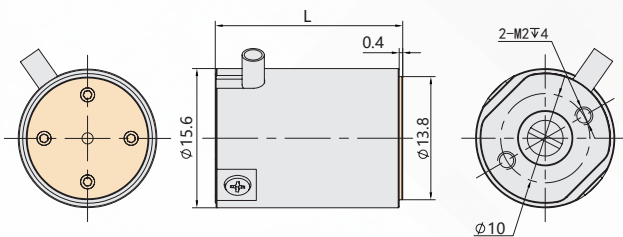
## Curves >>



Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

## Drawing >>

Type	L[mm]
S30.T2S	30
S30.T2K	30



## Recommended Controllers >>



**E01.C3**  
LCD, membrane button, up to 625mA  
RS-232/RS-422/USB interface  
Software secondary development



**E70**  
Small size, ave current 70mA/channel  
RS-232/RS-422/USB interface  
Software secondary development



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