

θ_x, θ_y axes | S34.T2S/KY

Piezo Tip/Tilt Platform



Characteristics >>

- θ_x, θ_y tilt
- Load capacity to 500g
- High resonant frequency
- Fast response

Applications >>

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

Introduction

S34.T2S/KY piezo tip/tilt platform are specially designed for high-load, high-dynamic two-dimensional deflection applications. The load capacity can reach 500g, and the unload resonant frequency can reach 2800Hz. Its deflection angle can reach 1mrad/axis, open and closed loop versions are available.



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Technical Data >>

Type	S - closed loop K - open loop	S34.T2SY	S34.T2KY	Units
Active axes		θ_x, θ_y	θ_x, θ_y	
Driving channels		3	3	
Tilt angle(0~120V)		0.8($\approx 165^\circ$)	0.8($\approx 165^\circ$)	mrad/axis $\pm 10\%$
Tilt angle(0~150V)		1($\approx 2006^\circ$)	1($\approx 200^\circ$)	mrad/axis $\pm 10\%$
Integrated sensor		SGS	-	
Resolution		0.05 ($\approx 0.01^\circ$)	0.02 ($< 0.01^\circ$)	μrad
Closed-loop linearity		0.5	-	%F.S.
Closed-loop repeatability		0.2	-	%F.S.
Unloaded resonant frequency		2800	2800	Hz $\pm 20\%$
Loaded resonant frequency@500g		600	600	Hz $\pm 20\%$
Step Time		5	3	ms $\pm 20\%$
El. capacitance		14.5		$\mu\text{F}/\text{axis}\pm 20\%$
Operating temperature ^[1]		-20~80		$^\circ\text{C}$
Material		Steel, Aluminum		
Mass		2000		g $\pm 5\%$
Cable length ^[2]		1.5		m $\pm 10\text{mm}$
Sensor/voltage connector ^[2]		-		

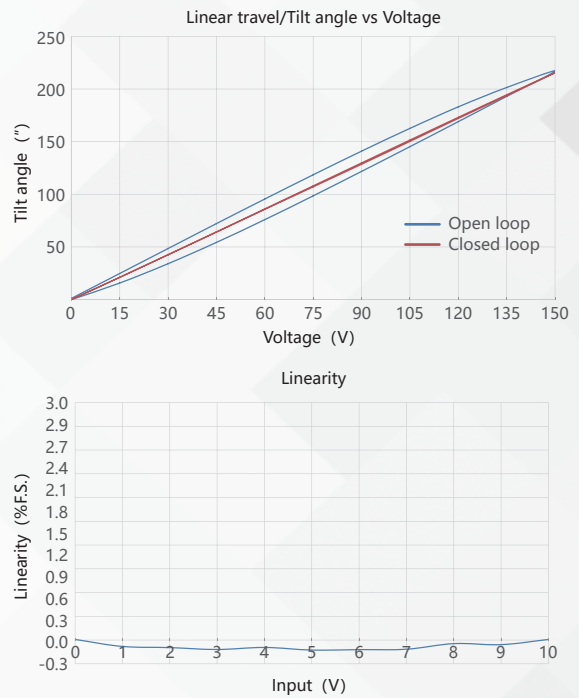
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25 $^\circ\text{C}$.

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

[2] Custom cable length and connector is available.

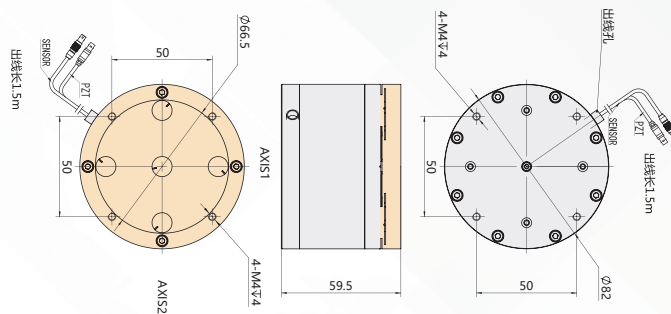
Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves >>



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

Drawing >>



Recommended Controllers >>



E01.D3
 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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