

# $\theta_x, \theta_y$ axes | P34.T4S/K-B2 Piezo Tip/Tilt Platform



## Characteristics >>

- $\theta_x, \theta_y$  tilt
- Tilt range to 5.6mrad/axis
- Sub-ms response time
- High closed-loop positioning accuracy
- High temperature stability

## Applications >>

- Laser scanning
- Image processing and stabilization
- Beam deflection
- Interlacing scanning, dithering
- Interference
- Light filter/optical switch
- Laser micromachine
- Active and adaptive optics

## Introduction

P34.T4-B2 piezoelectric deflection platform is designed for lenses large up to 80 mm in diameter. Their differential drive exhibits excellent angular positioning stability over a wide temperature range. P34.T4-B2's structure allows the top platform to perform high dynamic precision deflection motion on two orthogonal axes with common pivot points.



**Harbin Core Tomorrow Science & Technology Co., Ltd.**

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**Technical Data >>**

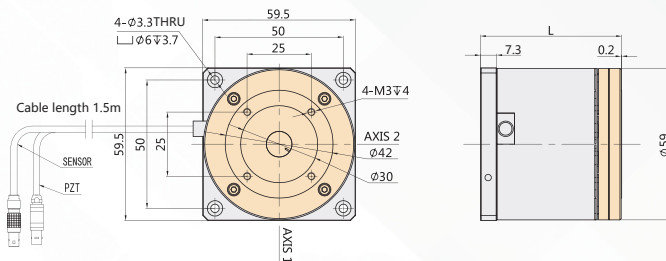
Type	S - closed loop K - open loop	P34.T4S-B2	P34.T4K-B2	Units
Active axes		$\theta_x, \theta_y$	$\theta_x, \theta_y$	
Driving channels		3	3	
Tilt angle (0~120V)		4.5		mrad $\pm$ 20%
Tilt angle (0~150V)		5.6		mrad $\pm$ 20%
Integrated sensor		SGS	-	
Resolution		0.2	0.1	$\mu$ rad
Closed-loop linearity		0.1	-	%F.S.
Closed-loop repeatability		0.02	-	%F.S.
Unloaded resonant frequency		1.6	1.6	kHz $\pm$ 20%
El. capacitance		14.5/axis	14.5/axis	$\mu$ F $\pm$ 20%
Operating temperature <sup>[1]</sup>		-20~80	-20~80	$^{\circ}$ C
Material		Aluminum	Aluminum	
Platform Length L		92	92	mm $\pm$ 0.1
Mass		800	800	g $\pm$ 5%
Cable length <sup>[2]</sup>		1.5	1.5	m $\pm$ 10mm

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 $^{\circ}$  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 $\mu$ m, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

**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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