

# $\theta_x, \theta_y$ axes | P33.T6S/KF/Y Piezo Tip/Tilt Platform



## Characteristics >>

- $\theta_x, \theta_y$  tilt
- Tilt range to  $\pm 3.75\text{mrad/axis}$
- 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

P33.T2 Piezo Tip/Tilt Platform is a deflection platform with fast response and compact size. It provides high-precision angular motion of the top platform. Compared with other actuators, the flexible hinge-guided piezoelectric deflection platform provides higher acceleration.



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## Technical Data >>

Type	S - closed loop K - open loop	P33.T6SF/Y	P33.T6KF/Y	Units
Active axes		$\theta_x, \theta_y$	$\theta_x, \theta_y$	
Driving channels		3	3	
Tilt angle (0~100V)		6.2/±3.1 (≈ ±639°)		mrad±10%
Tilt angle (0~120V)		7.5/±3.75 (≈ ±773°)		mrad±10%
Integrated sensor		SGS	-	
Resolution		0.25 (≈ 0.05°)	0.1 (≈ 0.02°)	μrad
Closed-loop linearity		0.25	-	%F.S.
Closed-loop repeatability		0.02	-	%F.S.
Unloaded resonant frequency		3.2	3.2	kHz±20%
Unloaded step time		6	3.5	ms±20%
El. capacitance		11/axis	11/axis	μF±20%
Operating temperature <sup>[1]</sup>		-20~80	-20~80	°C
Material		Steel	Steel	
Platform Length L		73	73	mm
Mass		290	290	g±5%
Cable length <sup>[2]</sup>		1.5	1.5	m±10mm
Sensor/voltage connector <sup>[2]</sup>		-	-	

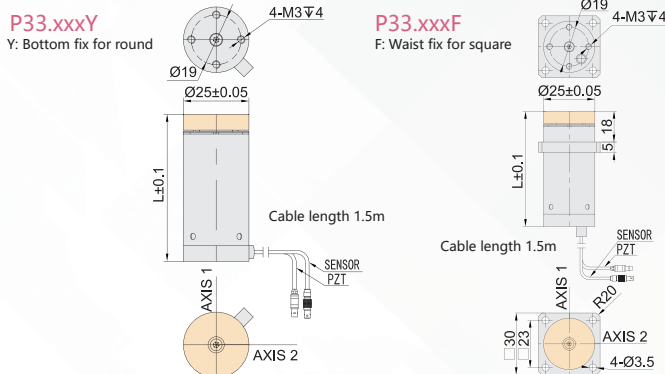
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

[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 20μm, 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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