

θ_x, θ_y axes | P35.T40S/K Piezo Tip/Tilt Platform



Introduction

Designed for high large-angle deflection applications, P35 Piezo Tip/Tilt Platforms provide beam deflections up to 86mrad (approximately 4.9 degrees, 17700"), making them ideal for fast deflection applications with high precision and large angle.

Characteristics >>

- θ_x, θ_y tilt
- Tilt range to 43mrad
- Resolution to 0.4 μ rad
- Unloaded resonant frequency to 1.5kHz

Applications >>

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



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Technical Data >>

Type	S - closed loop K - open loop	P35.T40S	P35.T40K	Units
Active axes		θ _x , θ _y		
Driving channels		3		
Tilt angle(0~120V)		35/±17.5 (≈ ±3600°)		mrاد±10%
Tilt angle(0~150V)		43/±21.5 (≈ ±4400°)		mrاد±10%
Integrated sensor		SGS	-	
Resolution		1.2 (≈ 0.25°)	0.4 (≈ 0.08°)	μrad
Closed-loop linearity		0.02	-	%F.S.
Closed-loop repeatability		0.014	-	%F.S.
Unloaded resonant frequency		1500		Hz±20%
Resonant frequency		480(@10.6g)/215(@30g)		Hz±20%
Closed-loop operating frequency (-3dB)		25 (@30g load)		Hz±20%
El. capacitance		7.2/axis		μF±20%
Step time@10.6g		10	1.2	ms±20%
Step time@30g		25	25	ms±20%
Operating temperature ^[1]		-20~80		°C
Material		Titanium, aluminum		
Mass		335		g±5%
Cable length ^[2]		1.5		m±10mm
Sensor/voltage connector ^[2]		-		

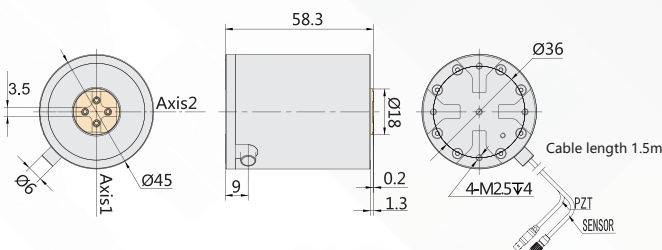
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

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

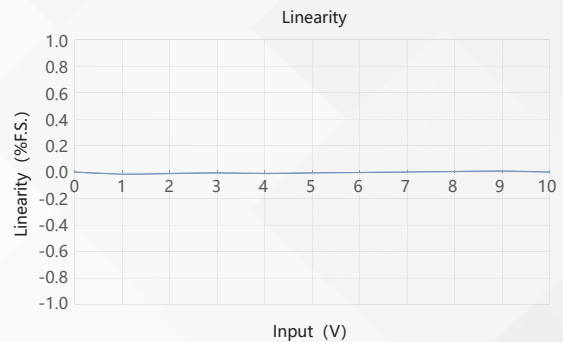
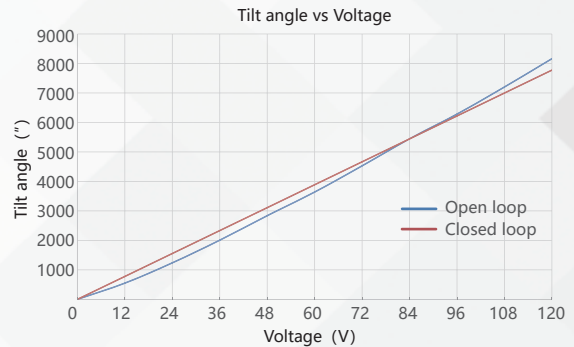
[2] Custom cable length and connector is available.

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 >>



Curves >>



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

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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