

θ_x, θ_y axes | S38.T2S/K

Piezo Tip/Tilt Platform



Characteristics >>

- θ_x, θ_y tilt
- Tilt angle: $\pm 1.5\text{mrad/axis}$
- Small size, outer diameter is only 20mm
- Optional closed-loop sensor

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

S38.T2 piezo tip/tilt platform have a very small shape and structure, with an outer diameter of only 20mm, θ_x and θ_y two-dimensional deflection strokes can reach $\pm 1.5\text{mrad/axis}$. Small lenses can be loaded for fast two-dimensional optical path deflection adjustment.



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790 Email: info@coremorrow.com
Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

Technical Data >>

Type	S - closed loop K - open loop	S38.T2S	S38.T2K	Units
Active axes		θ_x, θ_y	θ_x, θ_y	
Driving channels		3	3	
Tilt angle		$\pm 1/\text{axis}$ (0~100V)	$\pm 1.2/\text{axis}$ (0~120V)	mrad $\pm 20\%$
Tilt angle		$\pm 1.2/\text{axis}$ (0~120V)	$\pm 1.5/\text{axis}$ (0~150V)	mrad $\pm 20\%$
Integrated sensor		SGS	-	
Resolution		0.07 ($\approx 0.01''$)	0.02 ($< 0.01''$)	μrad
Closed-loop linearity		0.4	-	%F.S.
Closed-loop repeatability		0.2	-	%F.S.
Unloaded resonant frequency		2000	2000	Hz $\pm 20\%$
El. capacitance		3.6	3.6	$\mu\text{F}/\text{axis} \pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	$^{\circ}\text{C}$
Material		Steel, cuprum	Steel, cuprum	
Platform length L		29	29	mm ± 0.1
Mass(with no cable)		60	60	g $\pm 5\%$
Cable length ^[2]		1.5	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 $^{\circ}\text{C}$.

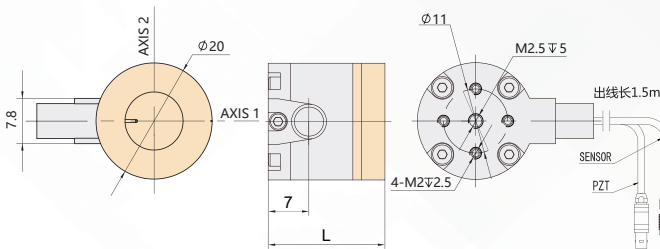
[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[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.

Drawing >>

Type	L[mm]
S38.T1	20
S38.T2	29



Note: Only mouting at the base, clamping is not accepted.

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



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790 Email: info@coremorrow.com
Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin
Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai