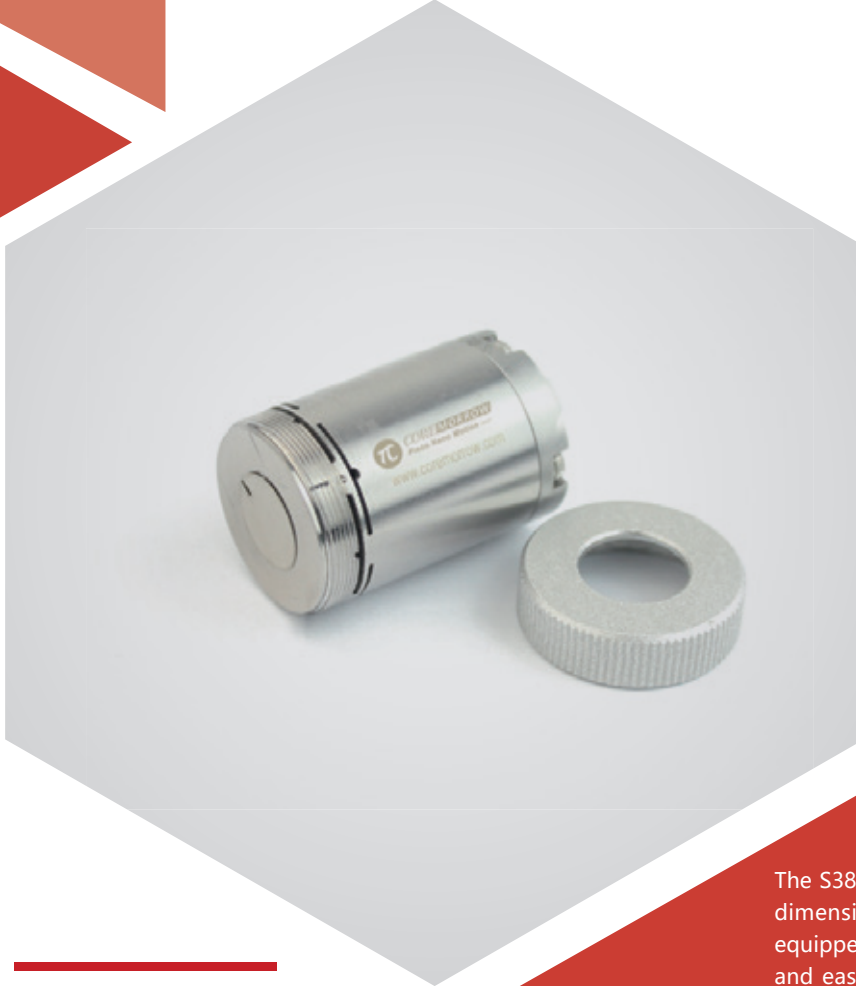


# $\theta_x\theta_y$ axes | S38.T2S/K-C1

## Piezo Tip/Tilt Platform



### Characteristics >>

- $\theta_x$ ,  $\theta_y$  tilt
- Tilt angle: 2.4mrad/axis
- Optional closed loop sensor
- Optional right-angle adapter structure

### Applications >>

- Light path adjustment
- Laser communication
- Light path stabilization
- Laser fast scanning
- Image processing and stabilization
- Error correction for polygonal mirrors
- Optical switch
- Active and adaptive optics

## Introduction

The S38.T2S/K-C1 piezo tip tilt platform is a  $\theta_x$ ,  $\theta_y$  two-dimensional deflection piezo fast steering mirror. It is equipped with a lens mounting cap and is small in size and easy to integrate. It can be integrated into a cage structure with a right-angle adapter.



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## Technical Data >>

Type	S - closed loop K - open loop	S38.T2S-C1	S38.T2K-C1	Units
Active axes		$\theta_x, \theta_y$	$\theta_x, \theta_y$	
Driving channels		3	3	
Tilt angle(0~100V)		2 or $\pm 1$ ( $\approx \pm 206''$ )		mrad $\pm 10\%$
Tilt angle(0~120V)		2.4 or $\pm 1.2$ ( $\approx \pm 247''$ )		mrad $\pm 10\%$
Integrated sensor		SGS	-	
Resolution		0.07 ( $\approx 0.01''$ )	0.02 ( $< 0.01''$ )	$\mu$ rad
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/axis	3.6/axis	$\mu$ F $\pm 20\%$
Operating temperature <sup>[1]</sup>		-20~80	-20~80	$^{\circ}$ C
Material		Steel, bronze	Steel, bronze	
Platform length L		29	29	mm $\pm 0.1$
Mass(with no cable)		60	60	g $\pm 5\%$
Cable length <sup>[2]</sup>		1.5	1.5	m $\pm 10$ mm
Sensor/voltage connector <sup>[2]</sup>		-	-	

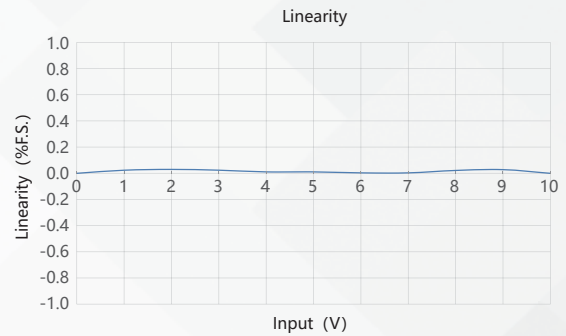
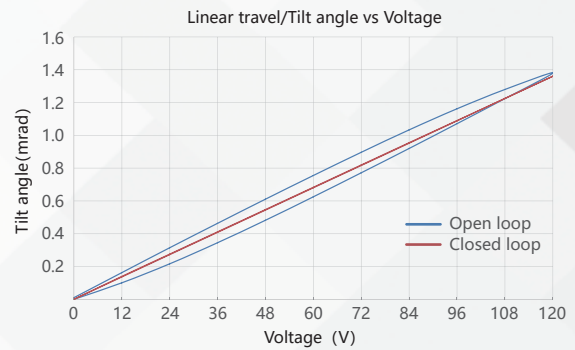
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25 $^{\circ}$  C.

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

[2] Custom cable length and connector is available.

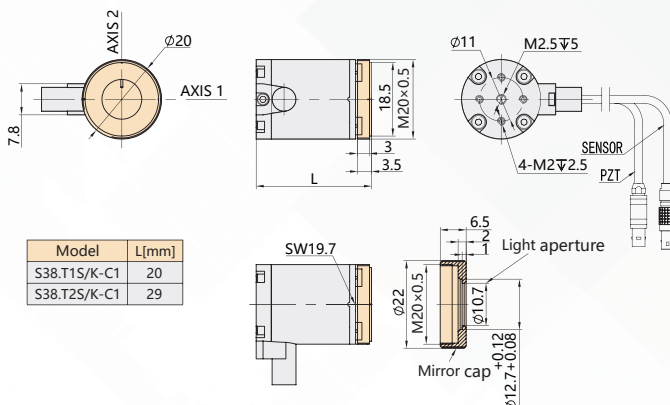
Note: The parallelism of the moving platform is about 20 $\mu$ m, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## 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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