

θ z axis | S20.R0S/K Piezo Rotation Stage



Introduction

S20 piezo rotation stage with a diameter of 20mm central aperture, features compact size, a rotation angle of 0.5mrad and closed-loop repeatability of 0.2% F.S.

Characteristics >>

- θ z rotary motion
- Rotation angle range to 0.5mrad
- Aperture diameter: \varnothing 20mm
- Closed loop for high accuracy
- Fast response
- Small size

Applications >>

- Optical beam scanning
- Light path adjustment
- Graphical stability
- Interference/metering
- Large loading tilt motion
- Space perturbation simulation system
- Calibration of acceleration sensor
- Calibration of angular velocity sensor



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Technical Data >>

Type	S-Closed loop K-Open loop	S20.R0S	S20.R0K	Units
Active axis		θ_z	θ_z	
Rotation angle(0~120V)		0.4($\approx 80^\circ$)	0.4($\approx 80^\circ$)	mrad $\pm 20\%$
Rotation angle(0~150V)		0.5($\approx 100^\circ$)	0.5($\approx 100^\circ$)	mrad $\pm 20\%$
Integrated sensor		SGS	-	
Resolution		0.25($\approx 0.5^\circ$)	0.05($\approx 0.01^\circ$)	μ rad
Closed-loop linearity		0.5	-	%F.S.
Closed-loop repeatability		0.2	-	%F.S.
Push/pull force		50/10	50/10	N
Stiffness		5	5	N/ μ m $\pm 20\%$
Unloaded resonant frequency		3.5	3.5	kHz $\pm 20\%$
Unloaded step time		8	0.7	ms $\pm 20\%$
Load capacity		4	4	kg
Operating temperature ^[1]		-20~80	-20~80	$^\circ$ C
El. capacitance		1.6	1.6	μ F $\pm 20\%$
Material		Steel	Steel	
Mass		140	140	g $\pm 5\%$
Cable length ^[2]		1.5	1.5	m ± 10 mm
Sensor/voltage connector ^[2]		-	-	

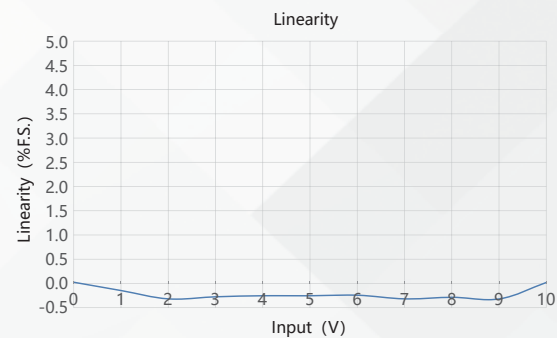
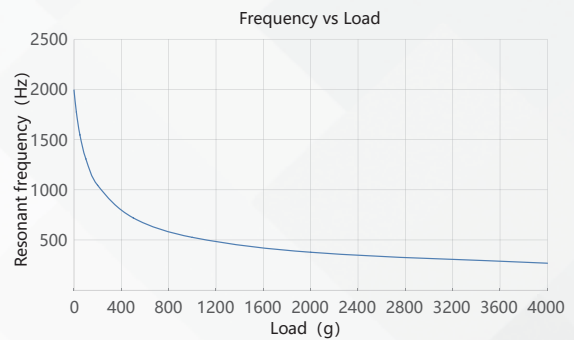
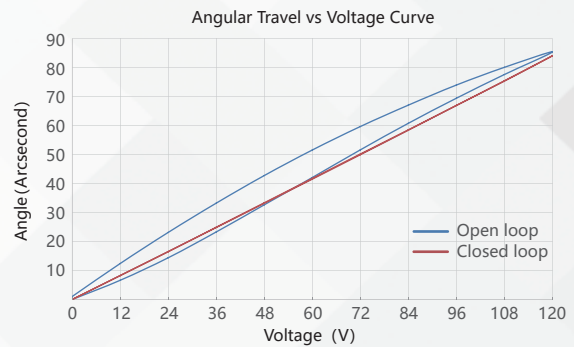
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25 $^\circ$ C.

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

[2] Custom cable length and connector is available.

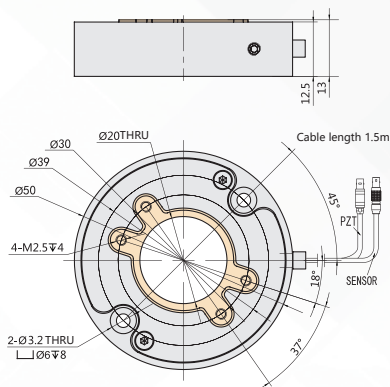
Note: The parallelism of the moving platform is about 20 μ m, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves >>



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

Drawing >>



Recommended Controllers >>



E01.D1
 LCD, membrane button, up to 625mA
 RS-232/RS-422/USB interface
 Software secondary development



E53
 Small size, 60mA
 RS-232/RS-422/USB interface
 Software secondary development



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