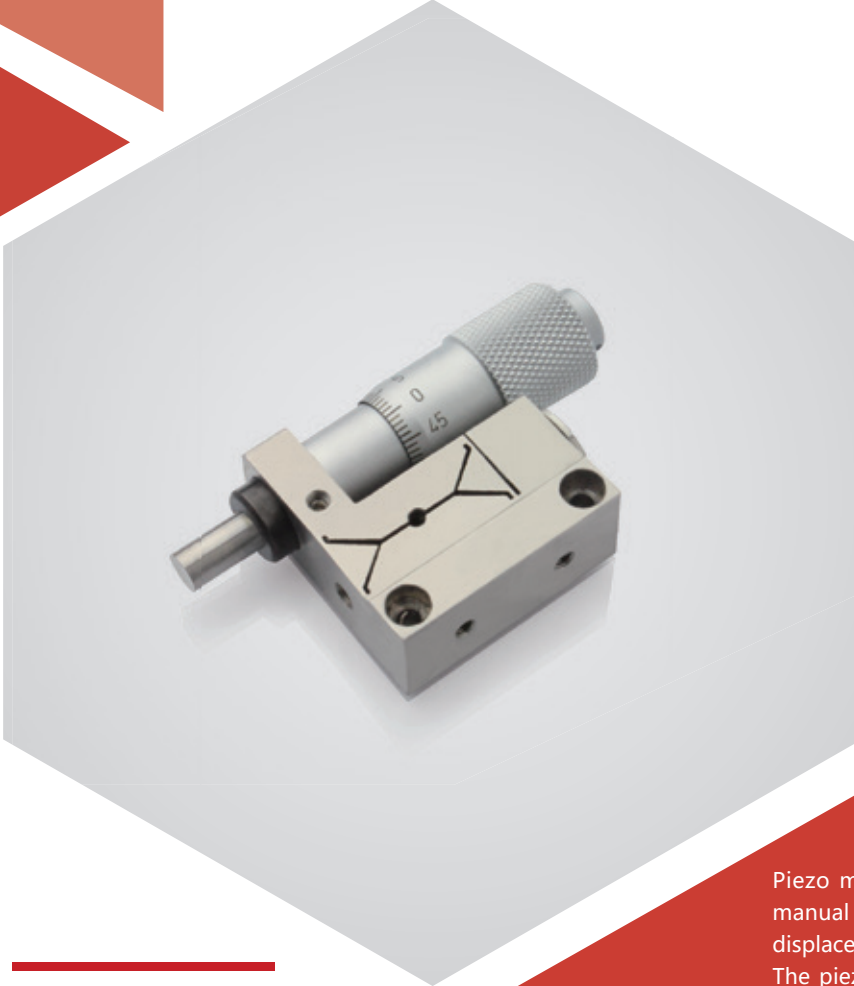


X axis | P83.X25S/K

Piezo Micrometers



Characteristics >>

- Active axes X
- Selectable sensor
- Manual micrometer displacement to 13mm, resolution to 10 μ m
- Piezo displacement up to 25 μ m, 100 μ m or 250 μ m, resolution to 0.5nm

Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning of CCD camera focus lens
- Micromachining/precision control

Introduction

Piezo micrometer refers to integrating piezo stage on manual micrometer. The manual micrometer has 13mm displacement.

The piezo stage features 25 μ m or 100 μ m displacement. The accuracy of micrometer is within the adjustment range of piezo stage, thus ensuring the accuracy and convenience of the adjustment.



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Technical Data >>

Type	P83.X25S	P83.X25K	Units
Active axes	X	X	
Travel range	13+25	13+25	mm+ μ m
Material	Steel	Steel	
Manual Adjustment - Micrometer			
Travel range	13	13	mm
Resolution	10	10	μ m
Driving mode	Screw thread pair		
Sensitivity	<2	<2	μ m
Least count	10	10	μ m/div
Screw pitch	0.5	0.5	mm/rev.
Piezo Adjustment - Piezo			
Travel range	0~120V	20	μ m \pm 20%
	0~150V	25	
Sensor	SGS	-	
Resolution	1	0.5	nm, typ.
Closed-loop linearity	0.2	-	%F.S.
Repeatability	0.1	-	%F.S.
Push force capacity	20	20	N
Stiffness	2	2	N/ μ m \pm 20%
Load (Z axis)	500	500	g
Mass	67.9	67.9	g
Electrical capacitance	1.8	1.8	μ F \pm 20%
Operating temperature ^[1]	-20~80	-20~80	$^{\circ}$ C
Cable ^[2]	1.5	1.5	m \pm 10mm
Connector ^[2]	LEMO	LEMO	

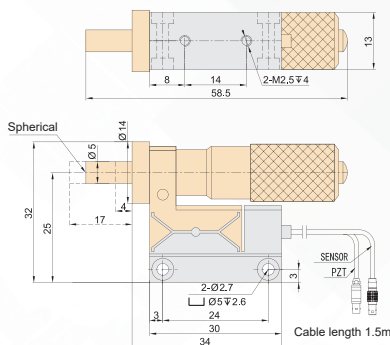
Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

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

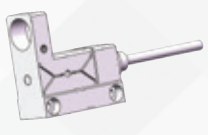

[2] Custom cable length and connector is available.

Note: The parameters mentioned above are related to the test environment and test equipment.

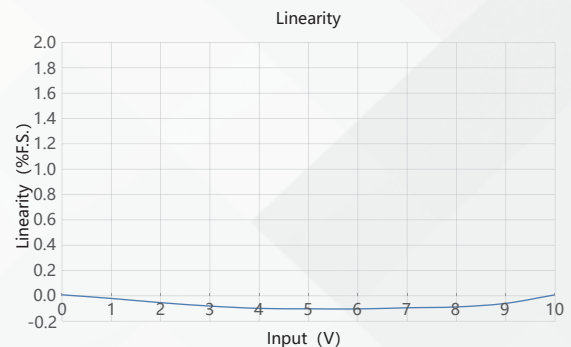
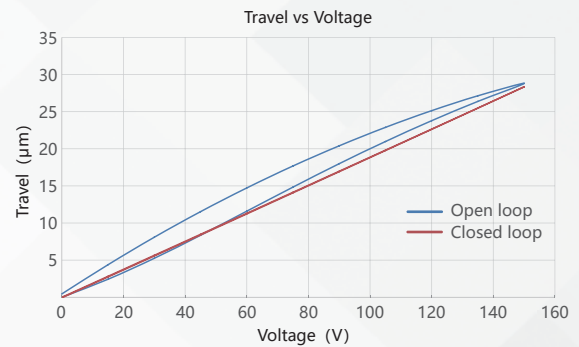
Drawing >>



Composition >>

Piezo stage	Micrometer
25 μ m Travel	13mm Travel
	

Curves >>



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

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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