

X axis | P84.X250S/K

Piezo Micrometers



Introduction

Piezoelectric micrometer is to point to in the micrometer integration on the basis of piezoelectric positioning platform, hand the micrometer can be 13 mm stroke of macro regulation, piezoelectric motion platforms can be carried out 250 microns of nanoscale micro adjustment, and micrometer adjust fine degrees in the piezoelectric adjusting range of motion platforms, so as to ensure the precision of adjustment and convenient.

Characteristics >>

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

Applications >>

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





Technical Data >>

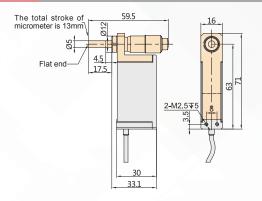
Туре		P84.X250S	P84.X250K	Units	
		Υ X	Υ X	Offics	
Active axes		~			
Travel range		13+250	13+250	mm+µm	
Material		,	Steel, Aluminum		
Manual Adj	ustment - Mic	rometer			
Travel range		13	13	mm	
Resolution		10	10	μm	
Driving mode		Screw thread pair			
Sensitivity		<2	<2	μm	
Least count		10	10	μm/div	
Screw pitch		0.5	0.5	mm/rev.	
Piezo Adjustment - Piezo					
Travel	0~120V	200	200	2001	
range	0~150V	250	250	μm±20%	
Sensor		SGS	-		
Resolution		7	2	nm, typ.	
Closed-loop linearity		0.1	-	%F.S.	
Repeatability		0.05	-	%F.S.	
Push force capacity		8	8	N	
Stiffness		0.03	0.03	N/µm±20%	
Unloaded resonant frequency		210	210	Hz±20%	
Load (Z axis)		200	200	g	
Electrical capacitance		7.2	7.2	μF±20%	
Operating temperature ^[1]		-20~80	-20~80	°C	
Cable ^[2]		1.5	1.5	m±10mm	
Connector ^[2]		LEMO	LEMO		

Note: Max driving voltage could be $-20V\sim150V$, recommended voltage $0\sim120V$ 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 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.

Drawing >>



Composition >>

Piezo stage	Micrometer
250μm Travel	13mm Travel

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

