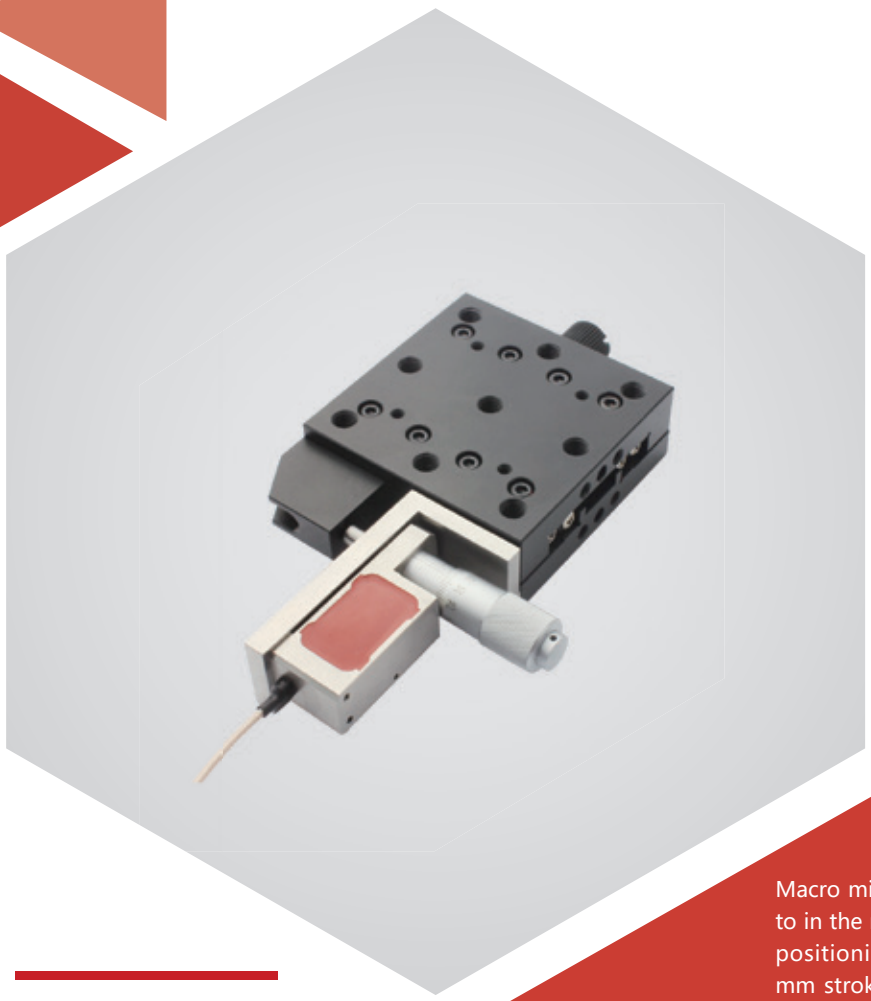
COREMORROW
Piezo Nano Motion

Make Your Motion and Control More Accurate!

X axis | X65P84S/K

Piezoelectric macro – micro composite platform



Introduction

Macro micro composite piezoelectric platform is to point to in the micrometer integration on the basis of the piezo positioning platform, hand the micrometer can be 13 mm stroke of macro regulation, piezoelectric movement platform can be 100 microns stroke of nanoscale micro adjustment, and micrometer adjustment accuracy on the platform of piezoelectric motor adjustment range, so as to ensure the precision of adjustment and convenient.

Characteristics »

- Motion in X
- Selectable sensor
- Manual micrometer displacement to 13mm, resolution to 10μm
- Piezo displacement up to 100μm, reslution to 1nm
- Custom longer coarse/fine travel is available

Applications »

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining/precision control

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Technical Data »

Type		X65P84S	X65P84K	Units
Active axes		X	X	
Travel range		13+100	13+100	mm+μm
Material		Steel, Aluminum	Steel, Aluminum	
Manual Adjustment - Micrometer				
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 range	0~120V	80	80	μm±20%
	0~150V	100	100	
Sensor		SGS	-	
Min step (resolution)		3	1	nm, typ.
Closed-loop linearity		0.1	-	%F.S.
Repeatability		0.05	-	%F.S.
Push force capacity		16	16	N
Stiffness		1	1	N/μm±20%
Load (Z axis)		1.3	1.3	kg
Mass		400	400	g±5%
Electrical capacitance		1.8	1.8	μF±20%
Operating temperature[1]		-20~80	-20~80	℃
Cable[2]		1.5	1.5	m±10mm
Connector[2]		LEMO	LEMO	

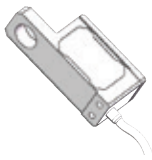
Note: Max driving voltage could be -20V~150V, recommended voltage 0~120V for long-term and high-reliable operation to extend lifetime. Technical data is measured by CoreMorrow E00/E01 series piezo controller.

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

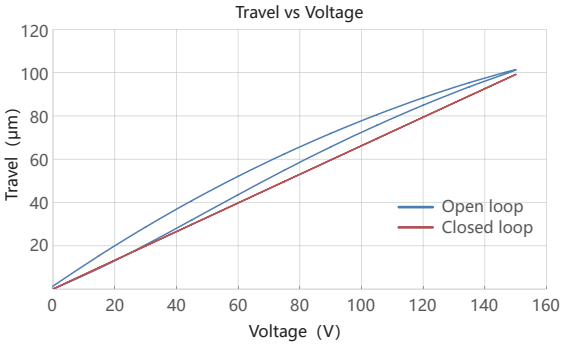
[2] Custom cable length and connector is available.

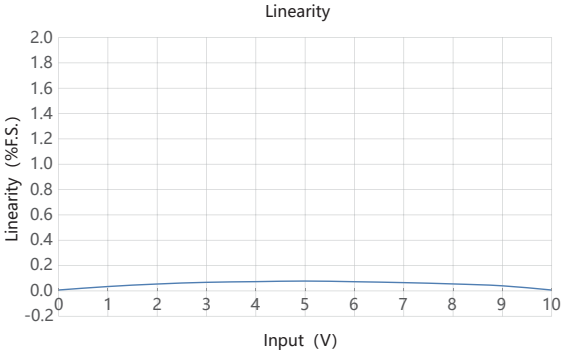
Note: The parameters mentioned above are related to the test environment and test equipment.

Composition »

Piezo stage	Micrometer
100μm Travel	13mm Travel
	

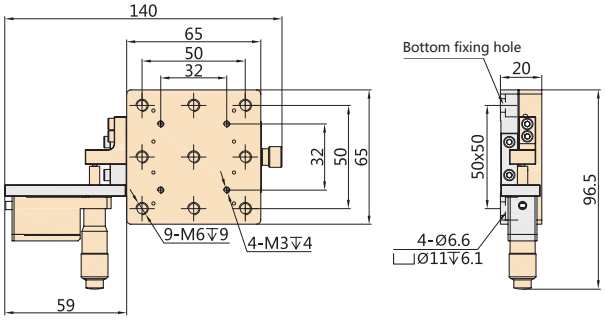
Curves »





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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