

XY axis | XY65P84S/K250

Piezoelectric macro – micro composite platform



Characteristics >>

- X Y motion
- Manual displacement to 13mm/axis, resolution to 10 μ m
- Piezo displacement to 250 μ m/axis, resolution to 2nm
- Optional feedback sensor
- Custom longer coarse/fine travel is available

Applications >>

- Optical alignment
- Cell manipulation
- Precision positioning
- Micromachining

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 13mm stroke of macro regulation, piezoelectric movement platform can be 250 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.



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Technical Data >>

Type	S- Closed loop K- Open loop	XY65P84S250	XY65P84K250	Units
Active axes		X, Y	X, Y	
Travel range(coarse+fine)		13+250/axis	13+250/axis	mm+μm
Material		Steel,Al	Steel,Al	
Manual Adjustment - Micrometer				
Travel range		13/axis	13/axis	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	200/axis	200/axis	μm±20%
	0~150V	250/axis	250/axis	
Sensor		SGS	-	
Min step (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%
Load (Z axis)		1	1	kg
Mass		1000	1000	g±5%
Electrical capacitance		7.2/axis	7.2/axis	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~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.

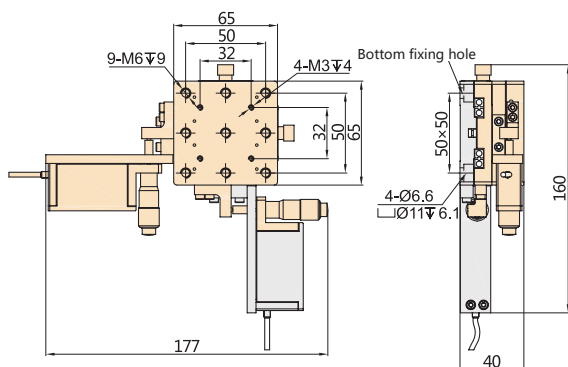
[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[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
250μm Travel	13mm Travel
	

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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