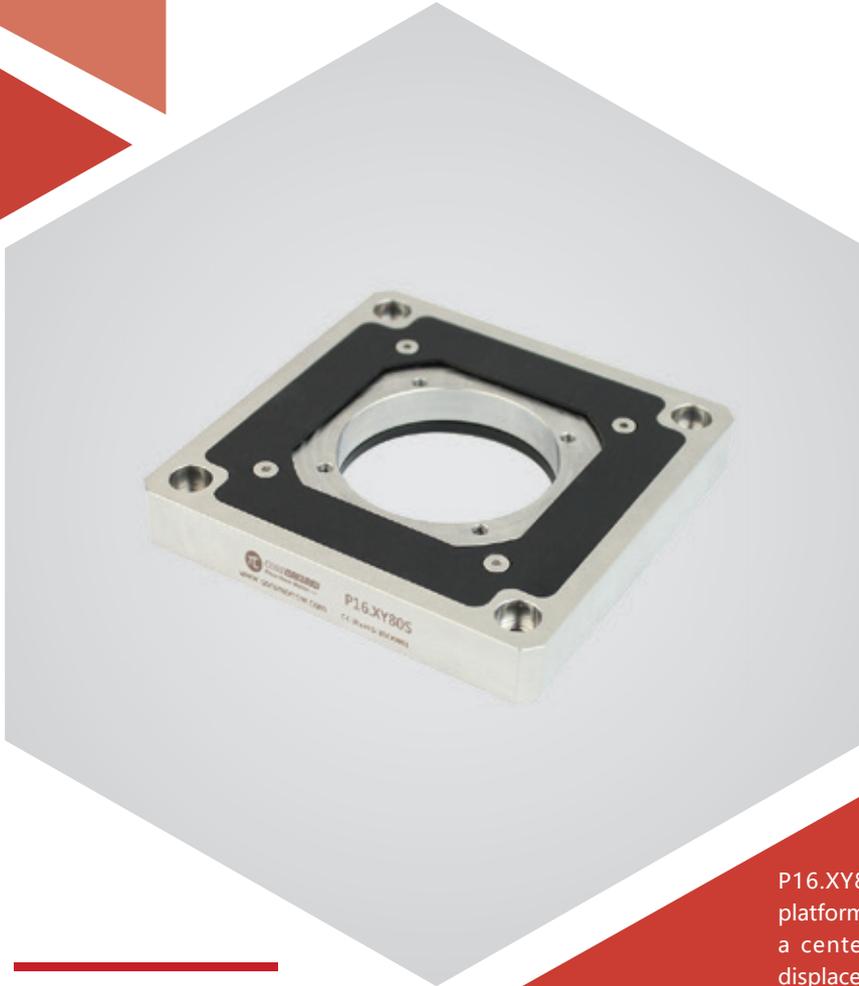


XY axis | P16.XY80S/K

Piezo Nanopositioning Scanner



Characteristics >>

- Motion in XY
- Travel to $\pm 40\mu\text{m}/\text{axis}$
- Load capacity to 0.5kg
- Aperture of $\varnothing 60\text{mm}$
- Closed-loop version for high accuracy

Applications >>

- Microscopic imaging
- Surface inspection
- Image stability
- Photoelectric aiming pod
- Interference/metering
- Precision positioning

Introduction

P16.XY80 piezo scanner is an XY motion scanning platform, adopting amplification mechanism. It features a center aperture diameter of 60mm and $\pm 40\mu\text{m}$ displacement in X and Y axes.

The product is very compact and easy to integrate.



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Technical Data >>

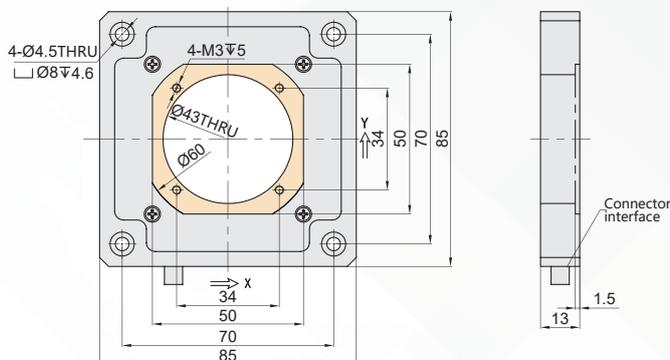
Type	S-Closed loop K-Open loop	P16.XY80S	P16.XY80K	Units
Active axes		X, Y	X, Y	
Driving channels		3	3	
Travel range (0~100V)		±33/axis	±33/axis	μm±10%
Travel range (0~120V)		±40/axis	±40/axis	μm±10%
Sensor		SGS	-	
Aperture size		Ø43	Ø43	mm
Resolution		2.5	1	nm
Linearity		X0.3Y1	-	%F.S.
Repeatability		X0.1Y0.5	-	%F.S.
Pitch/yaw/roll		<10	<10	μrad
Push/pull force		50/15	50/15	N
Stiffness in motion direction		1	1	N/μm±20%
Unloaded resonant frequency		700	700	Hz±20%
Unloaded step time		5	1.5	ms±20%
Load capacity		0.5	0.5	kg
El. capacitance		3.6/axis	3.6/axis	μF±20%
Operating temperature ^[1]		-20~80	-20~80	°C
Material		Steel, Al	Steel, Al	
Size (L×W×H)		85×85×13	85×85×13	mm
Mass		470	470	g±5%
Cable length ^[2]		1.5	1.5	m±10mm
Sensor/voltage connector ^[2]		-	-	

Note: 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° 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 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Drawing >>

Recommended Controllers >>


E01.D3
 LCD, membrane button, up to 625mA
 RS-232/RS-422/USB interface
 Software secondary development



E70
 Small size, 70mA
 RS-232/RS-422/USB interface
 Software secondary development



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