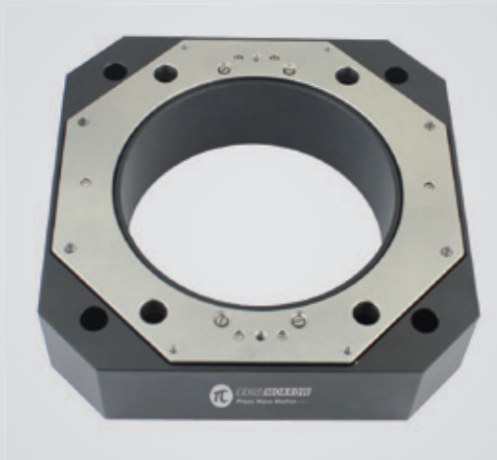


Z axis | P77.30S/K140

Piezo Phase Shifter



Characteristics >>

- Active axes Z
- Stroke to 16/32μm
- Load to 5kg
- Aperture size: Φ140mm
- Custom versions are available

Applications >>

- Optical trapping
- Surface inspection
- Precision positioning
- Microscopic imaging
- Phase shifter
- Phase shifting/interference/metering

Introduction

P77.30S/K140 piezo phase shifter is specially designed for optical detection and phase shifting applications, with travel range of up to 32μm and load capacity of up to 5kg, which is very suitable for large-aperture optical inspection equipment, like laser interferometer, for various lenses. Custom versions are available.



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Technical Data >>

Type	S-Closed loop K-Open loop	P77.30S140	P77.30K140	Units
Active axis		Z	Z	
Travel range(0~120V)		12.8/25.6	12.8/25.6	$\mu\text{m}\pm 10\%$
Travel range(0~150V)		16/32	16/32	$\mu\text{m}\pm 10\%$
Sensor		SGS	-	
Aperture		$\Phi 140$	$\Phi 140$	mm
Resolution		0.5	0.2	nm
Pitch/yaw/roll		< 15	< 15	μrad
Push/pull force capacity		80/15	80/15	N
Unloaded resonant frequency		200	200	$\text{Hz}\pm 20\%$
Unloaded Step time		14/7	14/7	$\text{ms}\pm 20\%$
Load capacity		Lateral 5	Lateral 5	kg
El. capacitance		14.4/28.8	14.4/28.8	$\mu\text{F}\pm 20\%$
Operating temperature ^[1]		-20~80	-20~80	$^{\circ}\text{C}$
Material		Al, steel	Al, steel	
Size(L×W×H)		210×210×56	210×210×56	mm
Mass		4200	4200	$\text{g}\pm 5\%$
Cable length ^[2]		1.5	1.5	$\text{m}\pm 10\text{mm}$

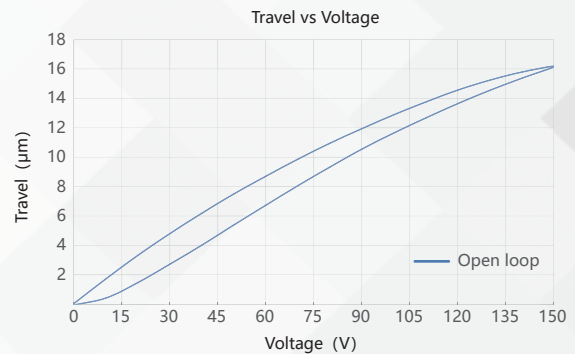
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

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

[2] Custom cable length and connector is available.

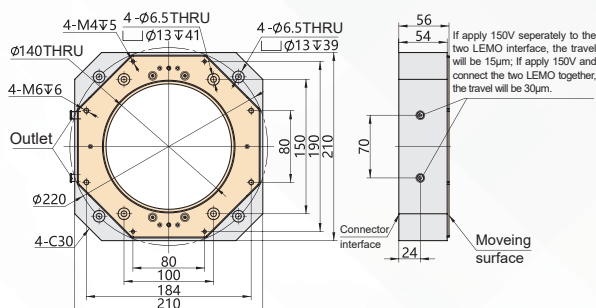
Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Curves >>



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

Drawing >>



Recommended Controllers >>



E53
 Small size, 60mA
 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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