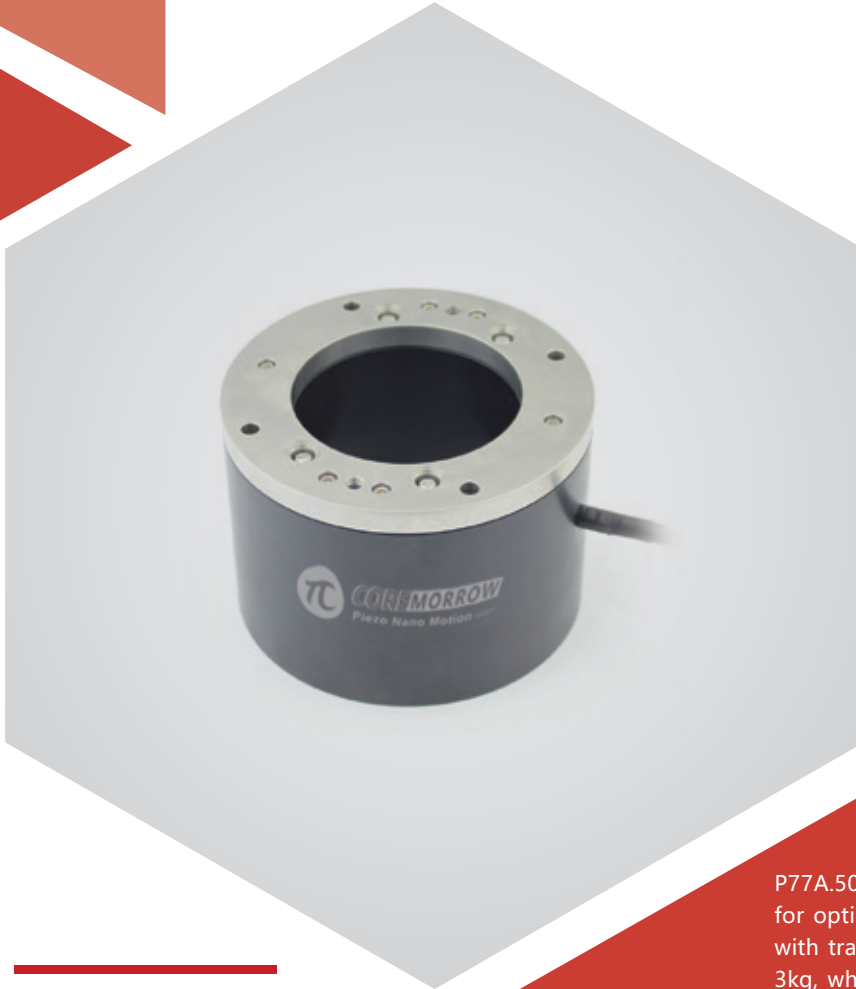


# Z axis | P77A.50K65

## Piezo Phase Shifter



## Introduction

P77A.50K65 piezo phase shifter is specially designed for optical detection and phase shifting applications, with travel range of up to 50 $\mu$ m and load capacity is 3kg, which is very suitable for large-aperture optical inspection equipment, like laser interferometer, for various lenses. Custom versions are available.

### Characteristics >>

- Active axes Z
- Stroke to 50 $\mu$ m
- Max load to 3kg
- Aperture size:  $\Phi$ 65mm
- Custom versions are available

### Applications >>

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



**Harbin Core Tomorrow Science & Technology Co., Ltd.**

Tel: +86-451-86268790

Email: [info@coremorrow.com](mailto:info@coremorrow.com)

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: [www.coremorrow.com](http://www.coremorrow.com)

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

## Technical Data >>

Type	K-Open loop	P77A.50K65	Units
Active axis		Z	
Travel range(0~120V)		40	μm±10%
Travel range(0~150V)		50	μm±10%
Aperture		Φ65	mm
Outer diameter		Φ105	mm
Height		72.5	mm
Resolution		1.5/0.5	nm
Pitch/yaw/roll		< 10	μrad
Push/pull force capacity		50/10	N
Unloaded resonant frequency		1400	Hz±20%
Unloaded Step time		2.5	ms±20%
Load capacity		upright 3, lateral 1, inverted 2	kg
El. capacitance		5.4	μF±20%
Operating temperature <sup>[1]</sup>		-20~80	°C
Material		Aluminum, steel	
Size(L×W×H)		1100	g±5%
Cable length <sup>[2]</sup>		1.5	m±10mm
Voltage connector <sup>[2]</sup>		LEMO	

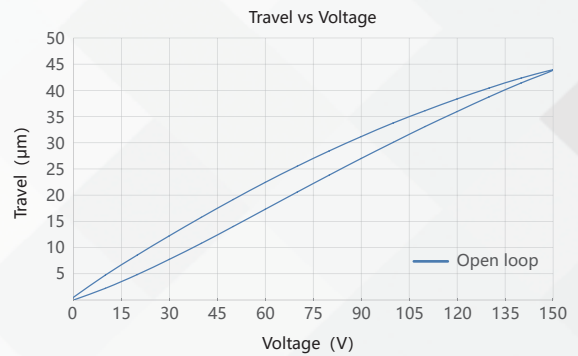
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

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

[2] Custom cable length and connector is available.

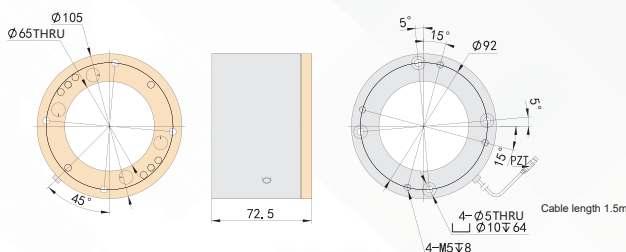
Note: The parallelism of the moving platform is about 20μm, and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## 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



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790

Email: info@coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: www.coremorrow.com

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai