

# PSH 25

## 2-Axis Mirror Tilting Platform



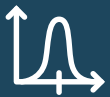
**Compact size**



**Tilting range  $\pm 20$  mrad open-loop,  
 $\pm 16$  mrad closed-loop**



**Sub- $\mu$ rad resolution**



**Up to 1.4 kHz  
resonant frequency**



The PSH 25 provides fast and precise positioning of optical components. Mirrors or prisms can be positioned in the mrad range at up to several hundred kilohertz.

This tip-tilt steering mirror platform is characterized by the positioning of optical components in two axes. A tilting range of up to  $\pm 20$  mrad (open-loop) /  $\pm 16$  mrad (closed-loop) is available. Another key feature is the easy exchange of different optical components.

The tilting system PSH 25 can be equipped with an integrated strain gauge positioning sensor. Positions can be controlled very exactly and a previously established tilt range can be set and repeated.

Optics and optical components in various sizes can be mounted on to this tilting system.

### **Variants:**

- With strain gauge (SG)

### **Recommended Controller:**

NV200/D Net

### **Applications**

- Laser scanning
- Laser beam stabilization
- Optical filters/switches
- Scanning microscopy (SPM)
- Image processing and stabilization

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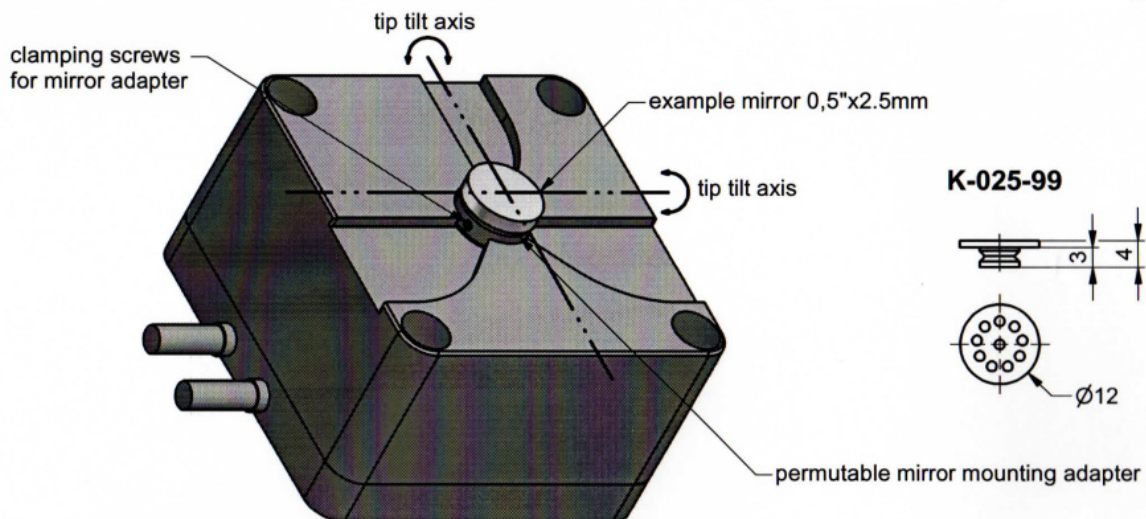
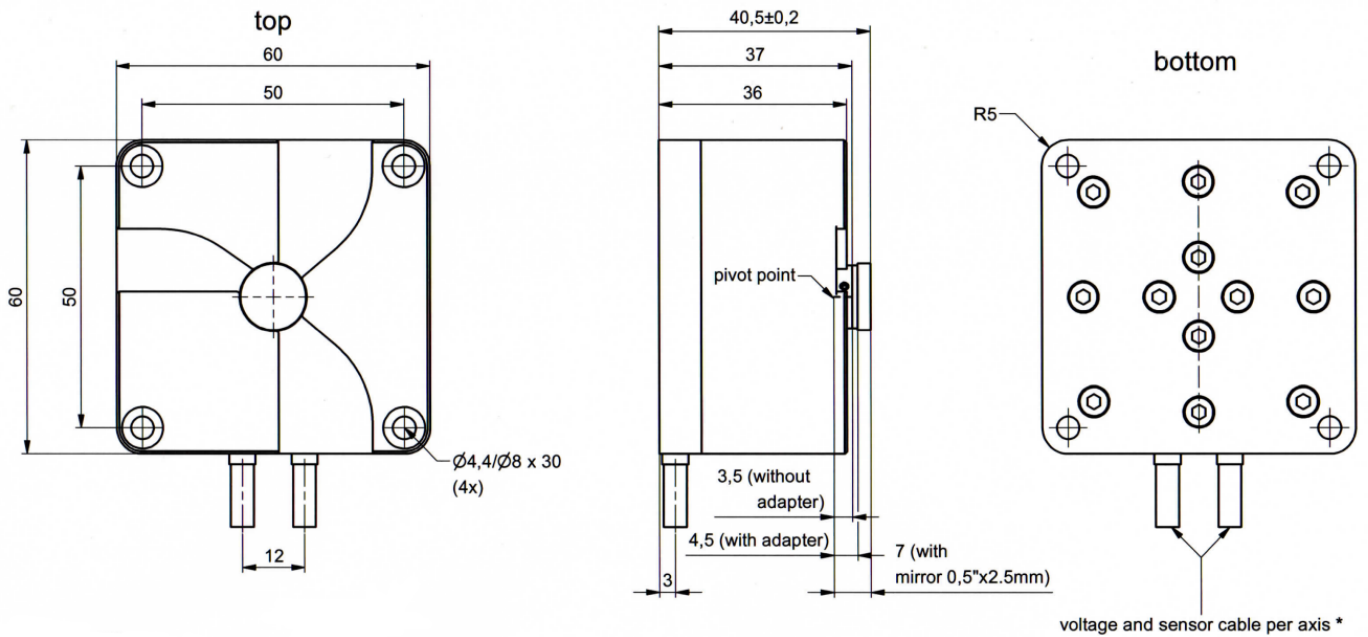
## Technical Data

	<i>Unit</i>	<i>PSH25 OEM</i>		<i>PSH25 SG OEM</i>	
Part #	-	K-125-00		K-125-01 (D/E)	
Axes	-	$\Theta_x$	$\Theta_y$	$\Theta_x$	$\Theta_y$
Tilting range open-loop	mrad	$\pm 20$		$\pm 20$	
Tilting range closed-loop	mrad	-		$\pm 16$	
Resolution open-loop*	$\mu\text{rad}$	-		0.2	
Resolution closed-loop*	$\mu\text{rad}$	-		0.3	
Feedbacksensor	-	-		strain gauge	
Repeatability	$\mu\text{rad}/\%$	-		13/0.05	
Max. non linearity	$\mu\text{rad}/\%$	-		0.4/0.002	
Electrical capacitance	$\mu\text{F}$	-		1.64	
Resonant frequency 13 g mm <sup>2</sup> (mass moment of inertia, 0.5" mirror)	Hz	-		1400	
Resonant frequency 80 g mm <sup>2</sup> (mass moment of inertia, 1" mirror)		-		500	
Voltage	V	-		-20 ... +130	
Temperature range	°C	-20...+80		-20...+80	
Material	-	aluminum		aluminum	
Dimensions (lxBxH)	mm	60 x 60 x 40.5 (2.4" x 2.4" x 1.6")			
Mass	g	350 (12.3 oz)			

\* Resolution is limited only by the noise of control signal.

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## Part Drawing



Dimensions given in mm.

We reserve the right to make changes to technical data and designs in the interest of technical progress.

**piezosystem jena GmbH**  
Tel: +49 (3641) 66880  
E-Mail: [info@piezोजना.com](mailto:info@piezोजना.com)

**piezosystem jena, Inc.**  
Tel: +1-508-634-6688  
E-Mail: [contact@psj-usa.com](mailto:contact@psj-usa.com)

[www.piezosystem.com](http://www.piezosystem.com)