

# PKS 1

## 2-Axis Mirror Tilting Platform



*Tilting axes in perpendicular orientation*



*Tilting range  $\pm 1$  mrad  
open-loop  $\pm 2^\circ$  manual*



*Sub- $\mu$ rad resolution*

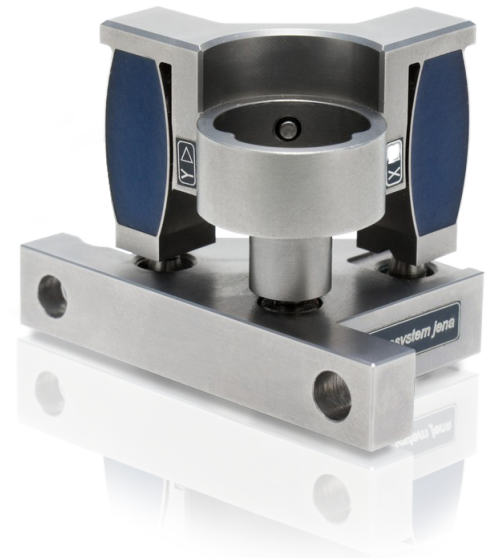


*900 Hz resonant frequency*

The PKS 1 tilting mirror system was developed for fast, fine mirror adjustment. It can be used with 1/2-inch and 1-inch mirrors. For laser beam stabilization the PKS 1 can be integrated into the beam line easily. The compact design and high stiffness are a perfect match for dynamic applications. Laser beam steering can be realized in nearly real time.

The piezo-driven range of fine adjustment of 1 mrad can be offset in a range of  $\pm 2^\circ$  by using the fine thread thumb screws. The controlling voltage range is -20 V to 130 V, and the resolution accuracy is dependent upon the noise level of the applied control signal.

Cable configuration can be changed for OEM applications upon request. The series PKS is adaptable to vacuum conditions.



### Variants:

- 1/2" mirror version
- 1" mirror version
- Vacuum versions

### Recommended Controller:

#### NV 40/3



E-750-000

### Applications

- Laser technology
- Beam alignment
- Fine adjustment of optical mirror
- Scanning systems

# PKS 1

## Technical Data

	<i>Unit</i>	<i>PKS 1-1/2"</i>		<i>PKS 1-1"</i>	
Part #	-	K-700-00		K-701-00	
Axes	-	$\Theta_x$	$\Theta_y$	$\Theta_x$	$\Theta_y$
Tilting angle, piezo-drive, open loop ( $\pm 10\%$ )	mrad	1			
Tilting angle, manual	$^\circ$	$\pm 2$			
Capacitance ( $\pm 20\%$ ) *	$\mu\text{F}$	0.8			
Resolution open-loop*	$\mu\text{rad}$	0.002			
Resonant frequency incl. mirror 10g	Hz	450		900	
Maximum mirror diameter ***	mm	$\varnothing 12.7$ (1/2")		$\varnothing 25.4$ (1")	
Voltage	V	-20 ... 130			
Material	-	Stainless Steel			
Connector	-	LEMO 0S.302			
Cable length	m	1			
Dimensions (LxWxH)	mm	48 x 31 x 36		52.5 x 52.5 x 36	
Mass	g	84; without mirror		140; without mirror	

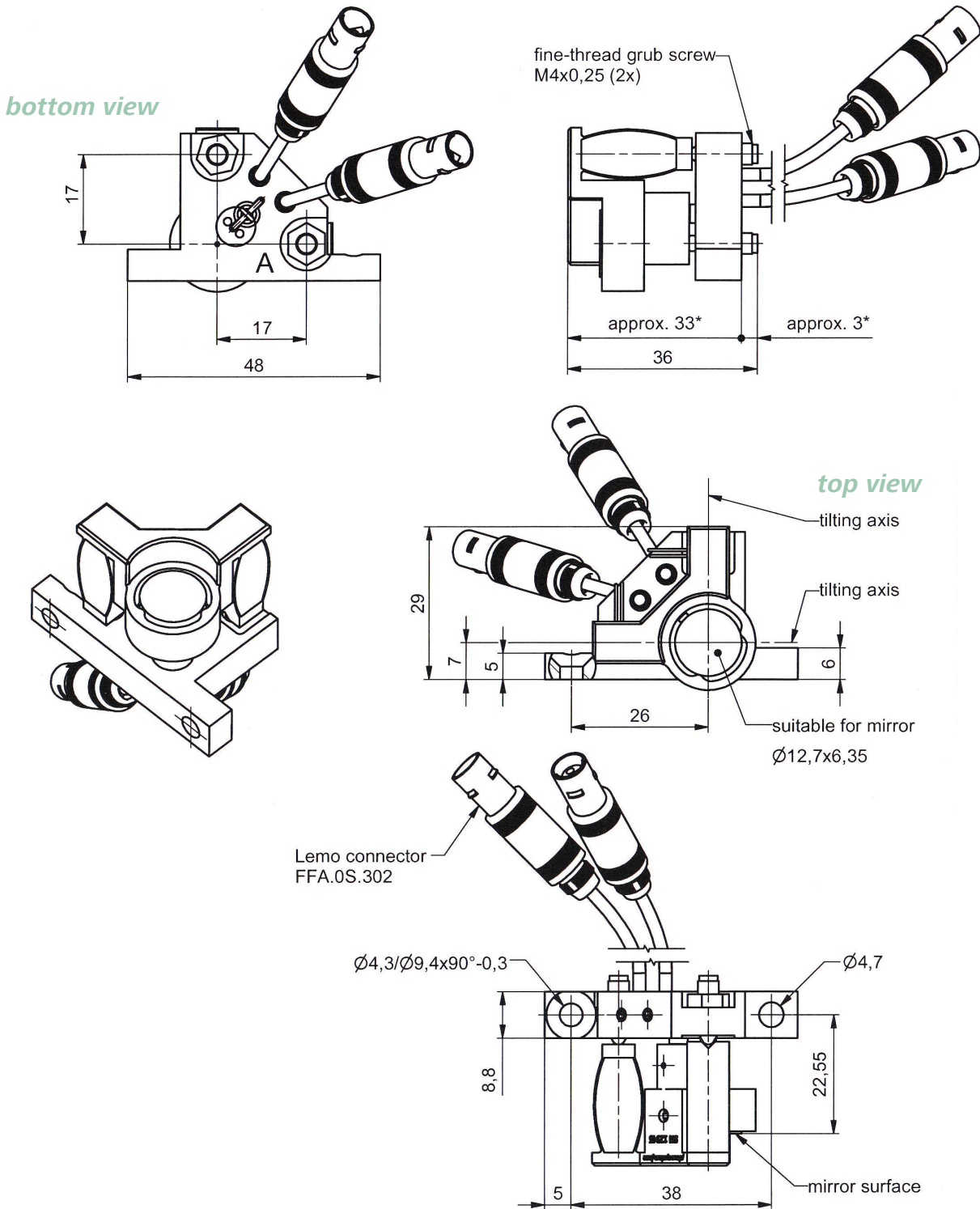
\* typical small signal behavior

\*\* resolution of the system only limited by noise of the signal

\*\*\* mirrors are not included in delivery

# PKS 1 - 1/2"

## Part Drawing



Dimensions given in mm.

Rights reserved to change specifications as progress occurs without notice.

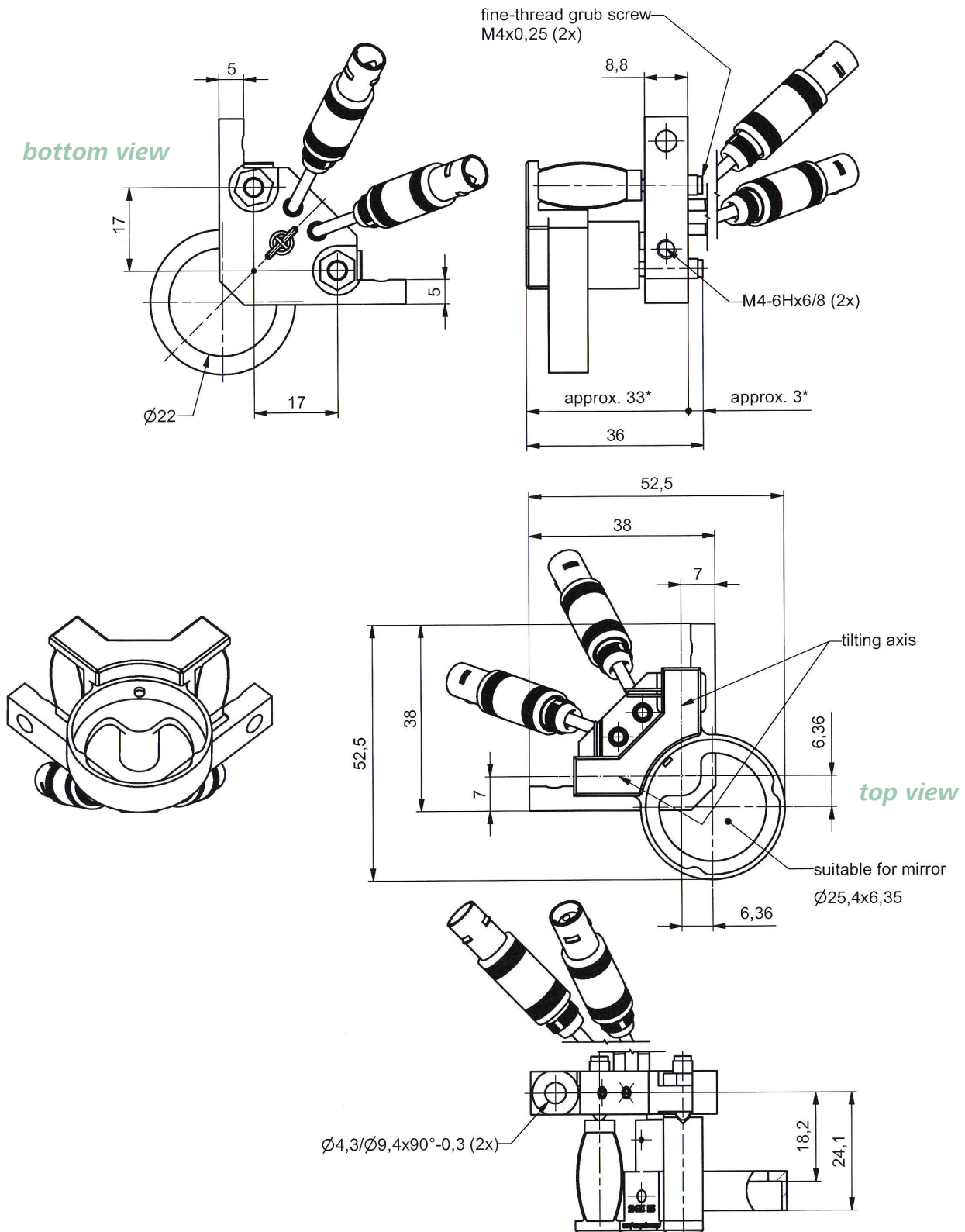
**piezosystem jena GmbH**  
Tel: +49 (3641) 66880  
E-Mail: [info@piezोजना.com](mailto:info@piezोजना.com)

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

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

# PKS 1 - 1"

## Part Drawing



Dimensions given in mm.

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**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.piezोजना.com](http://www.piezोजना.com)