mirror tilting system

PKS 1

- **compact**
- **orthogonal tilting axes**
- **high resonant frequency due to high stiffness**
- **applicable to vacuum conditions**
- **piezo driven fine adjusting range of 1 mrad**
- **large manual setting angle of ±2°**

applications:

- laser technology
- beam alignment
- scanning systems
- fine adjustment of optical mirrors

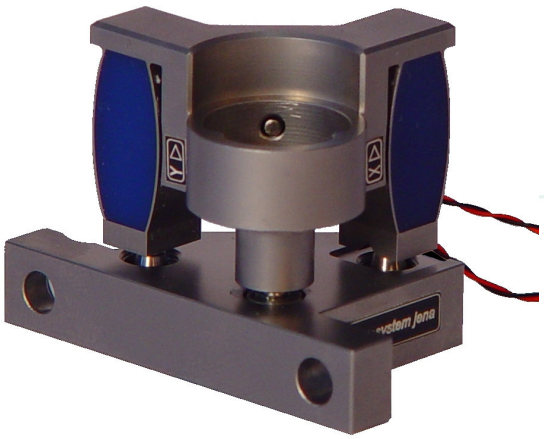

fig.1: PKS 1

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concept

The piezo tilting mirror PKS 1 has been developed for fast and fine mirror adjustment. It is applicable to vacuum conditions. The compact design and the high stiffness are a perfect backround for dynamic application.

specials

The piezo driven range of fine adjustment of 1mrad can be offset in a range of ±2° by using the fine-thread thumb screws.

mounting instructions

A mirror (Ø12,7x6,35mm) can be mounted easily by using the set screw or can be directly glued.

technical data:

		unit	PKS 1
part no.		-	K-700-00
axes		-	x, y
tilting angle, piezo-drive, open loop	x, y	mrad	1
tilting angle, manual	x, y	°	±2
capacitance (±20%) *	x, y	µF	0,8
resolution ** open loop	x, y	µrad	0,002
resonant frequency	x, y	Hz	450/450
stiffness		N/µm	25
dimensions (l x w x h)		mm	48 x 28 x approx. 36
mirror size ***		mm	Ø12,7x6,35
voltage range		V	-20 ... +130
connector		-	open wire
cable length		m	0,1
min. bend radius of cable		mm	>5
material		-	stainless steel
weight		g	84; without mirror

* typical small signal behavior
** resolution of the system only limited by noise of the system
*** not included

recommended configurations:

actuator	piezo tilting mirror	K-700-00
amplifier system	NV 40/3	E-101-20

actuator	piezo tilting mirror	K-700-00
amplifier/controller	2x EVD 50	E-720-100
amplifier system	casing for d-Drive	E-751-000