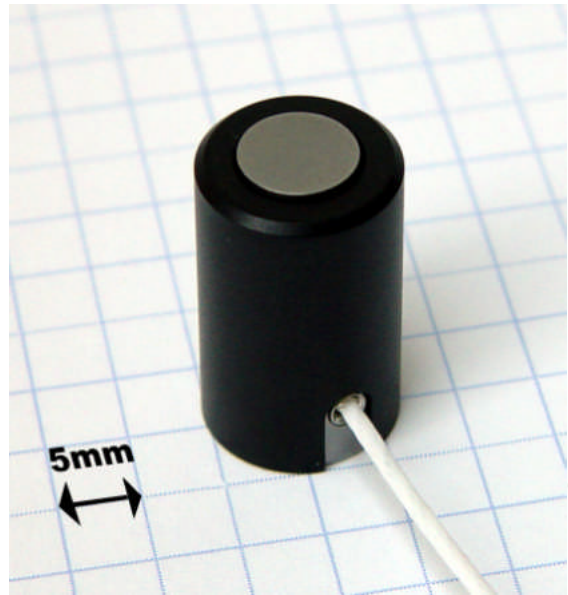


PSH 4/1 small size tilting system for high speed

- ◆ 1-axis +/- tilting platform
- ◆ sub- μ rad resolution
- ◆ 6.5kHz resonant frequency
- ◆ small size

application :

- laser beam steering
- beam stabilization
- scanning
- beam guiding



pic: PSH 4/1

CONCEPT

The new PSH 4/1 is a new addition in our series of piezo electrically driven mirror-tilting platforms. The PSH 4/1 was developed with a resonant frequency of more than 6.5kHz, as an ultra fast scanning system for the highest of frequencies. This system is uniquely designed with outside dimension of 12mm diameter and only 20mm height, The PSH 4/1 can be easily integrated into any of your existing systems.

These special features make the PSH 4/1 very suitable for applications in the fields of beam steering, laser stabilizing, optics, and telecommunication.

SPECIALS

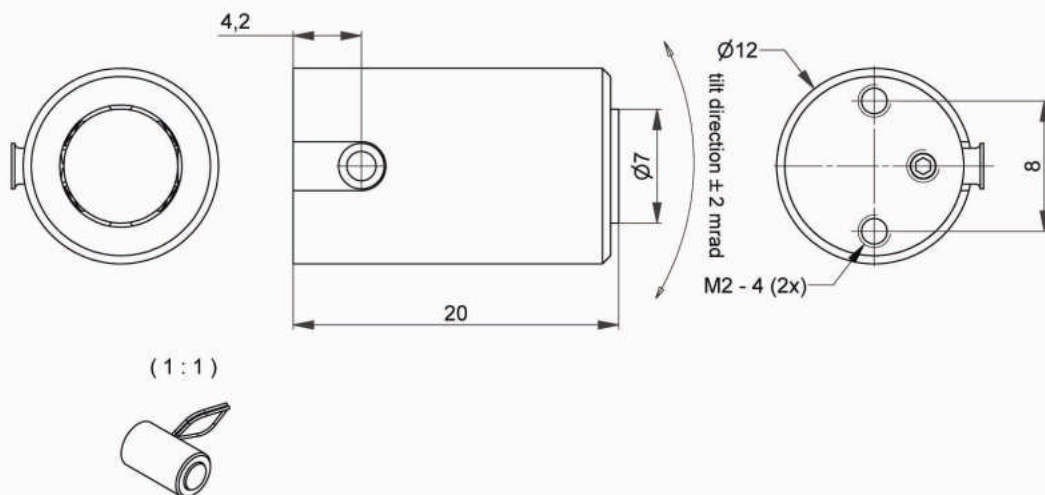
This miniature sized system is based on special high power piezo actuators. They provide a +/- tilting with a total travel range of up to 4mrad. Due to the internal pre-load the system displays a very short settling time and the resonant frequency is greater than 6.5kHz (unloaded). With its special flexure hinge design (FEA calculated) the system is free of friction and mechanical play. The PSH 4/1 is available in a cryogenic and vacuum version as well.

MOUNTING/INSTALLATION

The unique advantage of the PSH 4/1, is the small outer dimension. The system is integrated into a robust housing to avoid damaging. Also on the bottom plate two thread holes exist for mounting the PSH (M2x3 threading). The distance between both threaded holes is 8mm. Standard cable length is 1m. Optical components (e.g. mirrors) can be mounted on the top plate directly.

serie PSH			PSH 4/1
part. no.			K-120-00
tilting axes		-	θX
max. tilt **		mrad	± 2
operating voltage		V	-10...+150
resolution *		μrad	0.4^-3
capacitance *** (± 20%)		nF	200
resonant frequency (without pre-load) Vorspannung**		Hz	6500
typ. scanning range****		Hz	>5kHz
stiffness		N/μrad	1
dimension	length	mm	20
	diameter	mm	12
mounting	thread space	mm	8
	thread type	mm	M2-6H x 3
connector	voltage	-	ODU3pol.

- * measured wit amplifier E-248-000
- ** typ. value with -10V @ +150 V
- *** typ. small signal value
- **** pre-loaded platform, sinus wave motion



part-no.	K 120 00	part-name	PSH 4/1 HS
file name	K12000_KZ.idw	OK date/sign	
scale	M 2:1	customers drawing	piezosystem jena