



series PSH 8

150 V

- fast tilting platform for mirrors and other components up to 50mm diameter
- different tilting angles
- kHz-resonant frequency
- sub- μ rad resolution
- optional position feedback sensor
- can be combined with other translation systems



applications:

- laser tuning, laser beam stabilization
- scanning systems
- fine adjustments of optical mirrors
- optical stages
- cameras

technical data:

operating voltage:	-20 to +130 V
temperature range:	-20 to 80 °C
housing, tilting plate:	stainless steel
base plate:	stainless steel
connectors voltage / sensor:	LEMO
cable length:	1 m

The PSH tilting system series consist of three piezoelectric actuators. These actuators provide tilt to the top plate on two axes. These axes are perpendicular to each other. Their construction is temperature compensated, i.e. changes in environmental temperature do not affect the tilting angle.

The tilting mirror mounts are pre-loaded, thus they are extremely suitable for dynamic applications. One of their main parameters is a high resonant frequency.

mounting instructions:

Mirror mounts are pre-loaded. They can work under pulling and pushing forces. Because of their construction, they are very sensitive to lateral forces between the housing and the top plate.

During mounting, we recommend the use of our mounting clamp. This part protects the housing and the top plate while the mirror is installed.

options:

- integrated measurement system, e.g. strain gauges (accuracy typ. 0.4 to 0.6 %)
- vacuum version

multiaxis tip/tilting platform series PSH		unit	PSH 8
part. no.			K-108-00
number of active axis		-	2
max. tilt **		mrad	8
linear z-motion**		μ m	-
operating voltage		V	-20...130
capacitance per axis ($\pm 20\%$)***		nF	4500
resonant freq. (unloaded)**		Hz	1200
typ. scan freq ****		Hz	140
stiffness in z		N/ μ m	20
dimensions	length L	mm	25
	width B	mm	25
	height H	mm	61
mounting distance	holes spacing	mm	-
	threads	mm	M2 x 2
	voltage	-	LEMO 0S.302
multiaxis tip/tilting platform series PSH with feedback sensor		unit	PSH 8 SG
part. no.			K-108-01
max. tilt**	open loop	mrad	8
	closed loop	mrad	6.4
dimension	height H	mm	61
	resolution*	μ rad	0.016
	closed loop	μ rad	0.16
non-linearity**		%	0.37
repeatability**		μ rad	3.2
connector	sensor	-	LEMO 0S.304

- * measured with E-240-100 amplifier
- ** typ. value measured by -20... 130V
- *** typ. value for small electrical field strength
- **** unloaded

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