PZS 1-4

piezoslit PZS (patent pending)

Two slit edges are driven by single piezo-electric actuator. The piezoslit element is constructed with solid state flexure hinges arranged within a parallelogram design. This ensures a synchronized movement of the slit edges in respect to the center line. To avoid influence of hysteresis, creep and temperature effects, the piezoslit can be equipped with a strain gage measurement system. The positioning accuracy of the integrated measurement system is typically 0.2% or better.

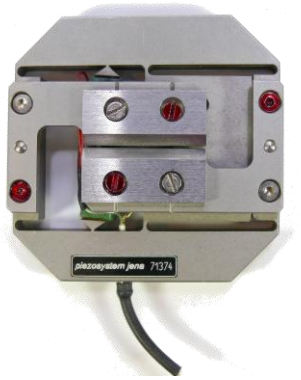

Image: PZS 4

zero volt position:

version 1: edges open (standard position)
version 2: edges closed (must be notified with order)

please order separately:

PZS 1/PZS 4:	1 pair of slit edges (length: 22mm, height: 2mm) made from steel: part no. O-101-51 made from invar: part no. O-101-59
PZS2:	1 pair of slit edges (length: 14mm, height: 2mm) made from steel: part no. O-102-51
PZS3:	1 pair of slit edges (length: 15mm, height: 3mm) made from steel: part no. O-103-51 made from invar: part no. O-103-71

Product highlights:

- symmetrical motion of two slit edges
- opening op to 1500µm
- driven by only one piezo actuator
- nm precise resolution
- vacuum compatible version
- optional measurement system

Applications:

- optics
- spectroscopy
- vacuum systems
- optical switches
- shutters and scanners

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PZS 1-4

Technical data:

PZS series	unit	PZS 1	PZS 2	PZS 3	PZS 4
part no.	-	O-101-00	O-102-00	O-103-00	O-101-80
opening (± 10%)*	µm	0 to 230	0 to 60	0 to 1500	0 to 300
capacitance (± 20%)	µF	1.8	0.7	7.2	2.5
resolution open loop**	nm	0.5	0.01	3	0.6
resonant frequency	Hz	450	1400	200	500
dimensions (l x w x h)	mm	42 x 42 x 14	22 x 22 x 9.5	96 x 25 x 14	50 x 50 x 14
aperture	mm	Ø8	Ø4	9 x 4	Ø10
weight	g	115	100	70	115
Vacuum compatible version part no.	-	PZS 1 V O-101-02	PZS 2 V O-102-02	PZS 3 V O-103-02	PZS 4 V O-181-82
Series PZS with integrated measurement system	unit	PZS 1 SG	PZS 2 SG	-	PZS 4 SG
part no.	-	O-101-01	O-102-01		O-101-81
opening (± 0.2%) closed loop	µm	190	50		240
integrated measurement system		strain gage	strain gage		strain gage
resolution closed loop**	nm	3	0.8		8
typ. repeatability	nm	15	6		20
weight	g	130	115		130

* typical value measured with NV 40/3 (closed loop NV 40/3)

** typical value for small electrical field strength

*** please see chapter's general remarks for explanation

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