

PICMA® Stack Multilayer Ring Actuator

WITH INNER HOLE



P-080

- Inner hole for preload or as aperture for optical applications
- Superior lifetime
- Ideal for dynamic operation
- Microsecond response
- Subnanometer resolution

Multilayer stack actuators

Flexible travel range up to 30 μm . Annular cross-section for easy integration.
UHV-compatible to 10^{-9} hPa, high bakeout temperature

PICMA® piezo linear actuators

Low operating voltage -20 to 100 V. Ceramic insulation.
High reliability and long lifetime

Available options

Different heights, easy to mount on customer request.
Variety of shapes. Precision-ground end plates for reduced tolerances

Fields of application

Research and industry. For laser tuning, microdispensing, life sciences

Preliminary data	P-080.311	P-080.341	P-080.391	Unit
Dimensions OD × ID × L	8 × 4.5 × 8.5	8 × 4.5 × 16	8 × 4.5 × 36	mm × mm × mm
Nominal travel range	5.5 ± 20 %	11 ± 20 %	25 ± 10 %	μm
Blocking force	800	825	850	N
Stiffness	145	75	34	N/μm
Electrical capacitance	0.86	1.7	4.0	μF
Resonant frequency	160	85	40	kHz

All data at 0 to 100 V.

Standard connections: PTFE-insulated stranded wires, 100 mm, AWG 30 (Ø 0.61 mm).

For optional solderable contacts without stranded wires, change order number extension to 0.

Piezo ceramic type PIC 252. Ceramic end plates made of Al₂O₃.

Recommended preload for dynamic operation: 15 MPa.

Maximum preload for constant force: 30 MPa.

Axial resonant frequency: measured at 1 V_{ppr}, unloaded, unclamped.

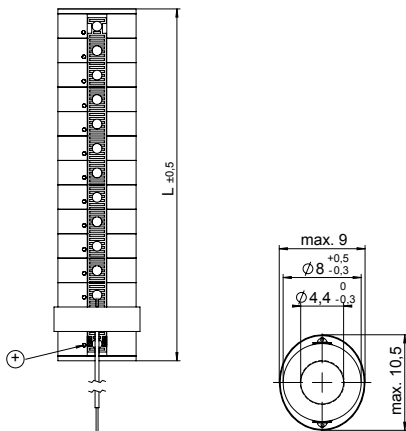
The value is halved for unilateral clamping.

Electrical capacitance: Tolerance ±20%, measured at 1 V_{ppr}, 1 kHz, RT.

Operating voltage: -20 to 100 V.

Operating temperature range: -40 to 150°C.

Ask about custom designs!



P-080, dimensions in mm