

Round PICMA® Multilayer Bender Actuators

All-Ceramic Bending Actuators with High Displacement



PD410

- Displacement to 480 μm
- Fast response in the ms range
- Nanometer resolution
- Low operating voltage
- UHV-compatible to 10^{-9} hPa

PICMA® multilayer bender elements with high reliability

Operating voltage 0 to 60 V. Bidirectional displacement, bimorph design. Ceramic insulation, polymer free. UHV-compatible to 10^{-9} hPa, no outgassing, high bakeout temperature. Reliable even under extreme conditions.

Fields of application

Industry and research, vacuum. For medical technology, laser technology, sensor technology, automation tasks, pneumatic valves.

Specifications

| | Displacement | Dimensions OD × ID × TH | Blocking force | Electrical capacitance | Resonant frequency |
|----------|---------------|-------------------------|----------------|------------------------|--------------------|
| | μm | | N | μF | Hz |
| PD410.10 | ±240 | 44 mm × 7 mm × 0.65 mm | ±16 | 2 × 9.5 | 1000 |

Displacement: Tolerance $\pm 20\%$.

Blocking force: Tolerance $\pm 20\%$.

Electrical capacitance: Measured at $1 V_{pp}$, 1 kHz, RT, tolerance $\pm 20\%$.

Resonant frequency: Measured at $1 V_{pp}$ restraint with rotatable mounting on the outer circumference, tolerance $\pm 20\%$.

Piezo ceramic type: PIC252.

Standard connections: Solderable contacts (PD410.10) or PTFE-insulated stranded wires, UHV compatible, 100 mm, AWG 32, \varnothing 0.49 mm (PD410.11).

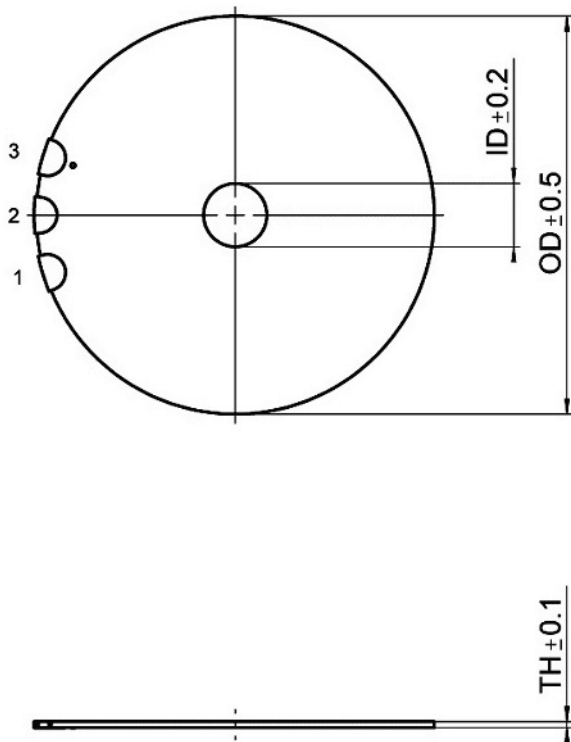
Operating voltage range: 0 to 60 (± 30) V.

Operating temperature range: -20 to 150 °C.

Recommended mounting: Epoxy resin adhesive.

All specifications depend on actual clamping conditions and mechanical load applied.

Custom designs or different specifications on request.



PD410 round PICMA® Bender, dimensions in mm. ID, OD, TH, see data table.

Ordering Information

Round PICMA® Bender actuators

PD410.10

Round PICMA® multilayer piezo bending actuator, $\pm 240 \mu\text{m}$ travel range

Round PICMA® Bender actuators with PTFE-insulated stranded wires

PD410.11

Round PICMA® multilayer piezo bending actuator, $\pm 240 \mu\text{m}$ travel range, stranded wires

Custom designs or different specifications on request.