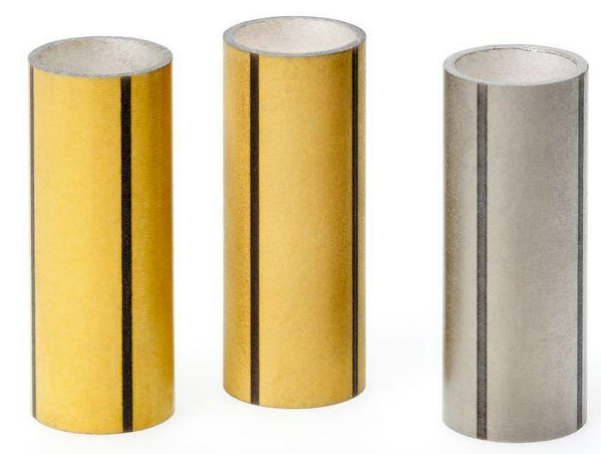


# PT Piezo Scanner Tubes

HIGH- DYNAMICS OPERATION WITH LOW LOADS



## PT230

- + Radial and axial displacement
- + Subnanometer resolution
- + Ideal for OEM applications
- + Large choice of designs
- + UHV- compatible to  $10^{-9}$  hPa

### Piezo actuator / scanner tube

Bipolar operating voltage up to  $\pm 250$  V. Fourfold segmented electrodes for axial and XY displacement. Monolithic piezoceramic actuator with minimal geometric tolerances. UHV- compatible to  $10^{-9}$  hPa. Short lead times

### Custom designs with modified specifications

- Materials
- Operating voltage range, displacement
- Tolerances
- Applied sensors
- Special high / low temperature versions
- Segmentation of the electrodes, wrap- around electrodes, circumferential insulating borders
- Non- magnetic

### Possible dimensions

- Length L max. 70 mm
- Outer diameter OD 2 to 80 mm
- Inner diameter ID 0.8 to 74 mm
- Min. wall thickness 0.30 mm

### Fields of application

Industry and research, UHV environment up to  $10^{-9}$  hPa. For microdosing, micromanipulation, scanning microscopy (AFM, STM, etc.), fiber stretching

## Specifications

	Dimensions L × OD × ID	Max. operating voltage	Electrical capacitance	Max. axial displacement	Max. XY deflection
		V	nF	$\mu\text{m}$	$\mu\text{m}$
PT230.94	30 mm × 3.2 mm × 2.2 mm	$\pm 250$	4 × 2.1	$\pm 4.5$	$\pm 35$
PT230.14	30 mm × 6.35 mm × 5.35 mm	$\pm 250$	4 × 4.5	$\pm 4.5$	$\pm 16$
PT230.24	30 mm × 10.0 mm × 9.0 mm	$\pm 250$	4 × 6.9	$\pm 4.5$	$\pm 10$

Electrical capacitance: Tolerance  $\pm 20$  %, measured at  $1 V_{pp}$ , 1 kHz, RT  
 Maximum displacement: For control with +250 / -250 V at opposite electrodes.

Piezo ceramic type: PIC255. Bakeout when short- circuited at 150 °C.  
 Inner electrode. GND. Outer electrodes: thin film (CuNi, Au); inner electrodes: fired silver.

Ask about custom designs!

## Order Information

### **PT230.94**

Piezo Scanning Tube, L 30 mm × OD 3.2 mm × ID 2.2 mm, ±35 µm XY Travel

### **PT230.14**

Piezo Scanning Tube, L 30 mm × OD 6.35 mm × ID 5.35 mm, ±16 µm XY Travel

### **PT230.24**

Piezo Scanning Tube, L 30 mm × OD 10 mm × ID 9 mm, ±10 µm XY Travel

Ask about custom designs!

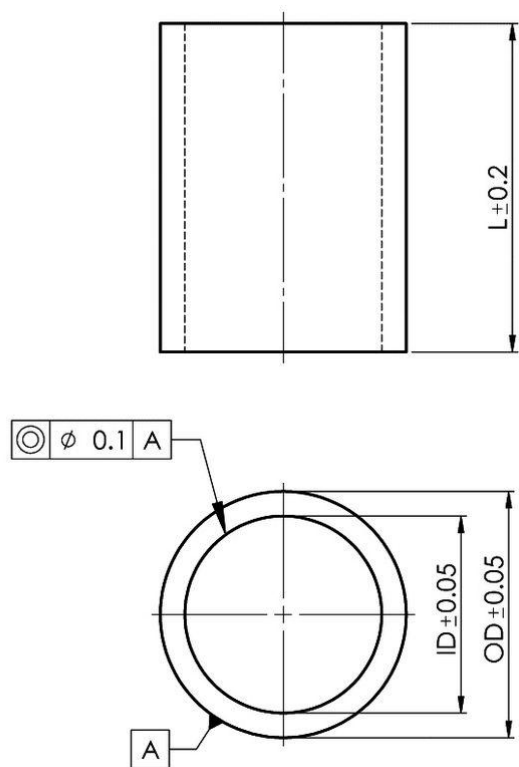
## Related Products

[PT120 – PT140 Piezo Tubes](#)

[P-010.xxH – P-025.xxH PICA Thru Ring Actuators](#)

[P-111 – P-151 PICA Shear Actuators](#)

## Drawings / Images



PT Piezo Tube  
actuators, dimensions  
in mm L, OD, ID see  
data table