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 ±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**

<table>
<thead>
<tr>
<th>Dimensions L × OD × ID</th>
<th>Max. operating voltage</th>
<th>Electrical capacitance</th>
<th>Max. axial displacement</th>
<th>Max. XY deflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT230.94 30 mm × 3.2 mm × 2.2 mm</td>
<td>±250</td>
<td>4 × 2.1</td>
<td>±4.5</td>
<td>±35</td>
</tr>
<tr>
<td>PT230.14 30 mm × 6.35 mm × 5.35 mm</td>
<td>±250</td>
<td>4 × 4.5</td>
<td>±4.5</td>
<td>±16</td>
</tr>
<tr>
<td>PT230.24 30 mm × 10.0 mm × 9.0 mm</td>
<td>±250</td>
<td>4 × 6.9</td>
<td>±4.5</td>
<td>±10</td>
</tr>
</tbody>
</table>

Electrical capacitance: Tolerance ±20 %, measured at 1 V, 1 kHz, RT
Maximum displacement: For control with ±250 V, -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
PT Piezo Tube actuators, dimensions in mm L, OD, ID see data table