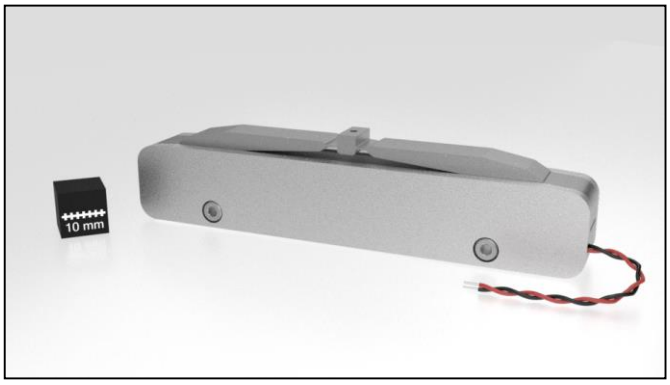
PSA1250 High Frequency Piezo Actuator

Description

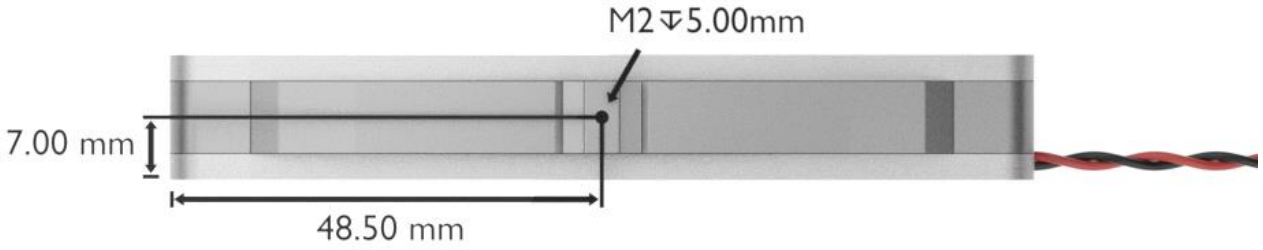
- Linear contracting motion with displacement to 1500 µm
- Minimal moving mass results in exceptionally high resonant frequency
- Optimal actuator for force generation in adaptive systems technology, nanoimprint processes, or machine tools
- Customizable and scalable for new applications

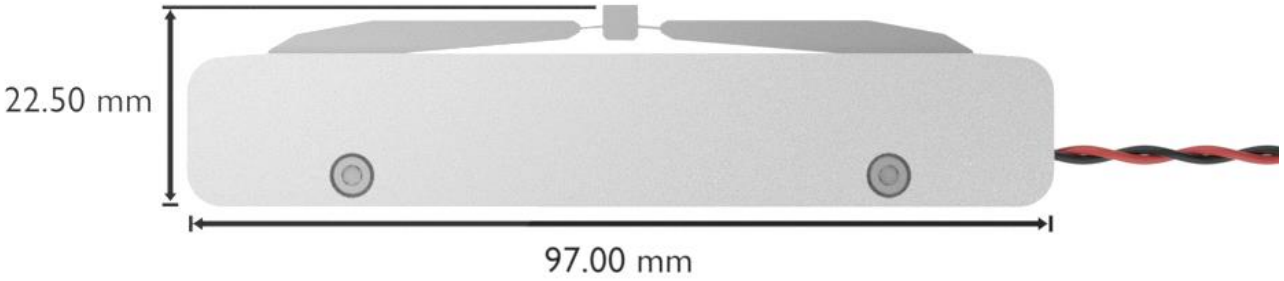


Recommended Applications

- Shutters
- Valves
- Pick and Place
- High-frequency switches
- Industrial Automation

Specifications	
Motion Direction (positive voltage):	Contracting
Resonant Frequency, No Load	500 Hz
Open-loop Displacement: Voltage Range: 0V to +150V	1250 µm ±15%
Open-loop Displacement: Voltage Range: -30V to +150V	1500 µm ±15%
Stiffness In Motion Direction:	0.045 N/µm
Blocked Force in Pull Direction: (Stiffness x Displacement 0 to +150V)	56 N
Blocked Force in Push Direction: (Stiffness x Displacement 0 to -30V)	67 N
Max. External Pushing Load: (Limited by Internal Preload)	8 N
Mass:	80 g
Integrated Thermocouple:	K-Type
Capacitance at 1VDC:	7 µF
Operating Environment:	-20°C to 80°C; 0 to 50% RH
Materials:	Stainless steel, Cu, PTFE, Al
Dimensions:	22.5 mm x 14.0 mm x 97.0 mm
Recommended Electronics:	VF-500 Amplifier
Connectors:	Flying Leads, Custom Options Available
Options:	Contact DSM for Integrated Sensor Options for Closed Loop Operation





A K-type thermocouple lead and two 26 AWG Lead Wires (a single red and a single black) exit the actuator per PZT stack polarity
Standard Flying Lead length is 50 mm