

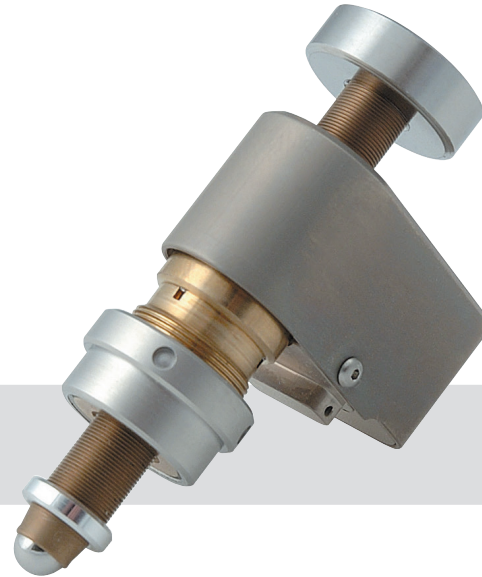
832x-V and 832x-UHV Series

8321-V, 8321-UHV, 8321-UHV-KAP, 8322-V



832x-V and 832x-UHV piezomotor actuators are ideal for beam-steering and scientific motion-control applications in vacuum and ultra-high vacuum. These actuators offer better than 30 nm resolution with minimal backlash, along with excellent long-term stability, high stiffness and ability to hold position at power-off state.

They come in 2 different travel versions: 0.5 inch (12.7 mm) and 1 inch (25.4 mm).

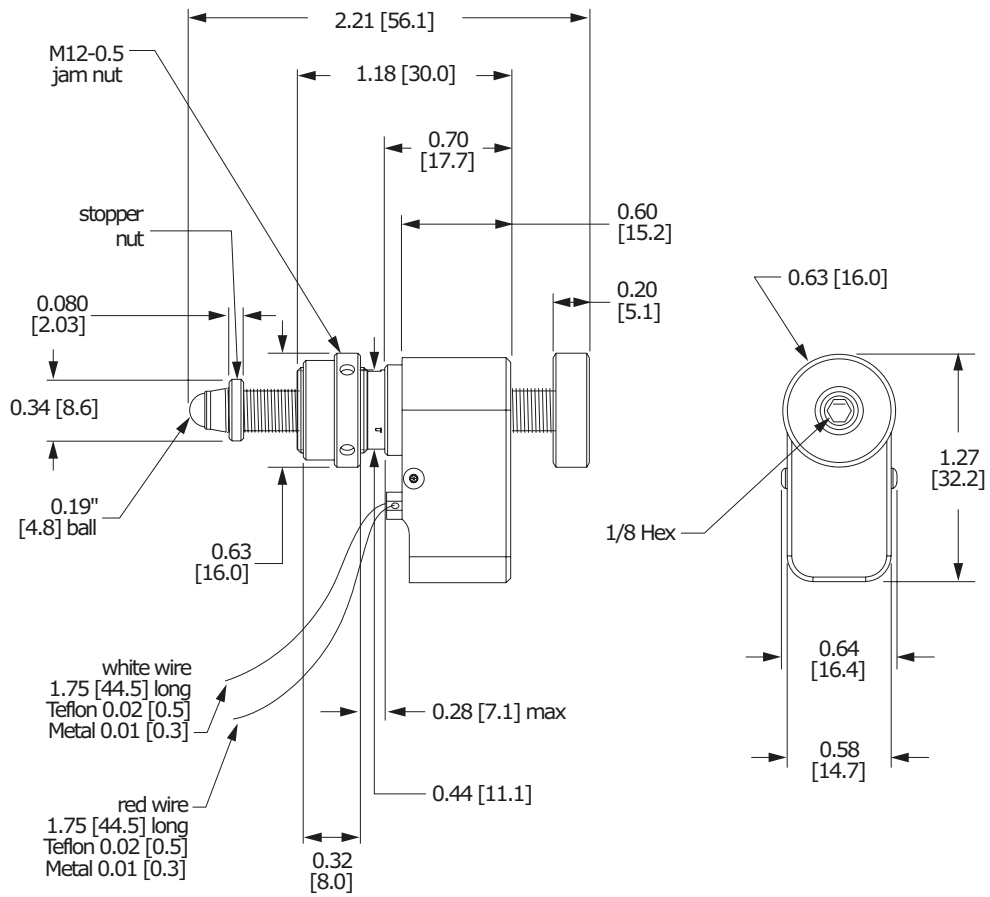


Product Features

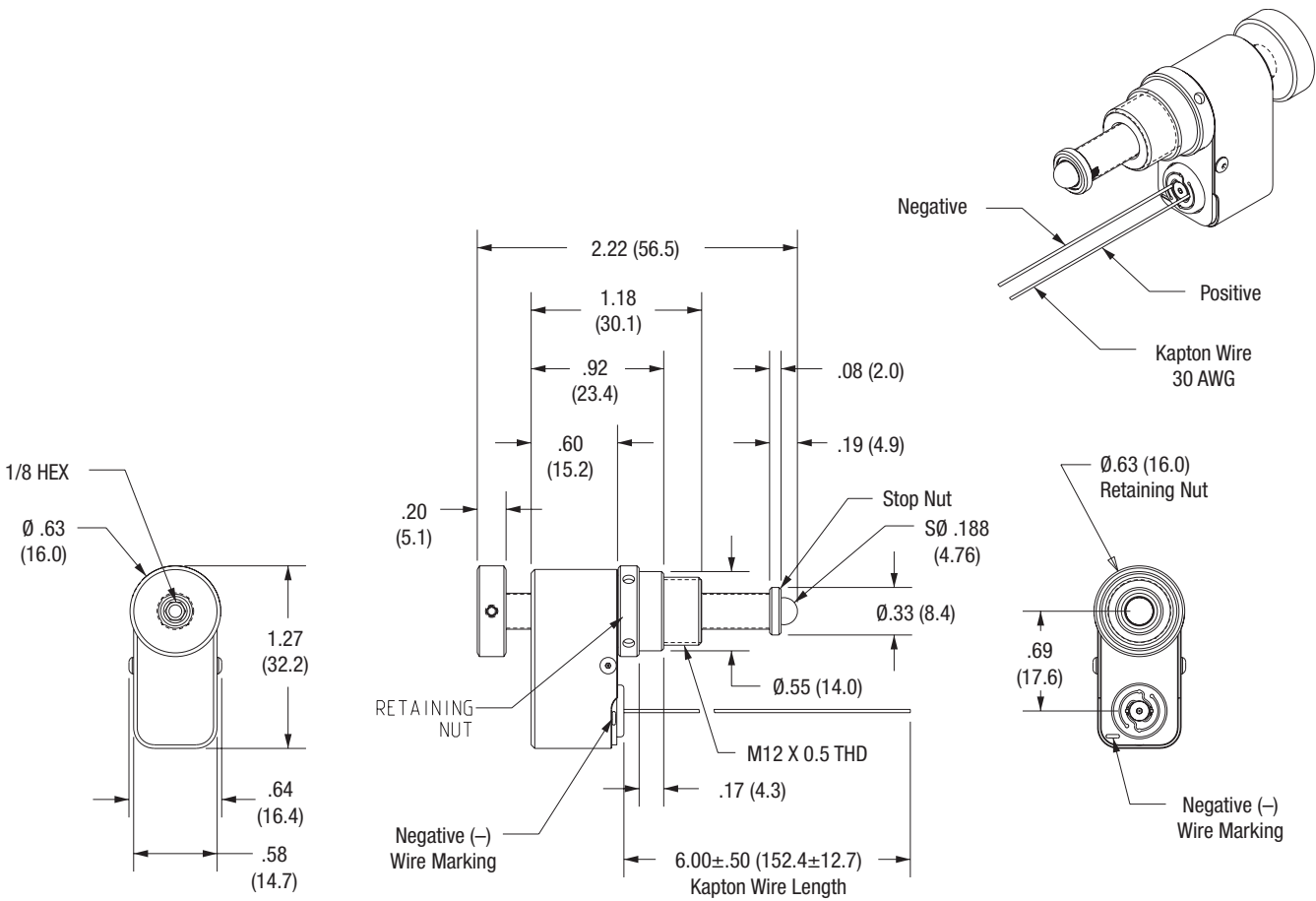
- Vacuum and ultra-high vacuum versions
- Minimum Incremental Motion <30 nm
- Set-and-forget long-term stability
- Teflon or Kapton wires

Dimensional Drawings

832x-UHV Picomotor Actuator



8321-UHV-KAP



Specifications	8321-UHV-KAP	8321-V, 8321-UHV	8322-V
Travel Range (mm)	12.7	12.7	25.4
MIM (nm)		< 30	
Max speed* (mm/min)		>1.46	
Drive force (N)		> 22	
Max axial holding force (N)		90	
Frequency (Hz)		< 2000	
Rated Life* (steps)		> 10 ⁹	
Vacuum Compatibility** (hPa)		10 ⁻⁶ or 10 ⁻⁹	
Vacuum Wire Material***		Teflon, Kapton	
Teflon Wire Length (mm)	N/A	44.5	
Kapton Wire Length (mm)	152.4	N/A	N/A
Connector type	Inside chamber: Flying leads Outside chamber: 2.1m RJ22 cable (supplied)		
Mounting	M12x0.5		
Long term Operating Temperature(° C)	+10 to +40		
Storage Conditions (° C)	-5 to 40°C, < 40% HR		

* @2000Hz & 22N

**10⁻⁶ for -V and 10⁻⁹ for -UHV and -UHV-KAP

***Teflon for -V and -UHV, kapton for -KAP

Recommended Controllers/Drivers

Model	Description
8703	Picomotor Driver, Single-Axis, TTL/Analog
8712	Picomotor Driver, Single-Axis, PCB-Mountable
8742	Motion Controller, Picomotor, Open-Loop, 4 Channel
8742-4-KIT	Picomotor Controller Kit, Four-Axis
8742-8-KIT	Picomotor Controller Kit, Eight-Axis
8742-12-KIT	Picomotor Controller Kit, Twelve-Axis
8743-CL	Picomotor Driver Module, Closed-Loop, 2 Channel
8743-CL-2-KIT	Motion Controller Kit, Closed Loop, Two-Axis Picomotor Driver, 8743-CL

ORDERING Information

Model	Description
8321-V	Picomotor Actuator, 12.7mm travel, 12x 0.5 mm thread, vacuum compatible, Teflon
8321-UHV	Picomotor Actuator, 12.7 mm travel, 12 x 0.5 mm thread, ultra- high vacuum, Teflon
8321-UHV-KAP	Picomotor Actuator, 12.7 mm travel, 12 x 0.5 mm thread, ultra- high vacuum, Kapton
8322-V	Picomotor Actuator, 25.4 mm travel, 12 x 0.5 mm thread, vacuum compatible, Teflon