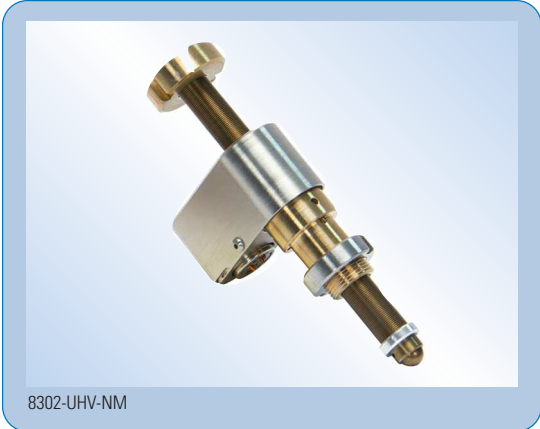


# Ultra High Vacuum Picomotor™ Actuators

## Non-magnetic with Kapton Wires



8302-UHV-NM

- Ultra High Vacuum Compatible ( $10^{-9}$  Torr)
- Outgas less than 5 ppm of volatile mass at 85° C over 3 hrs
- 0.5 and 1.0 in travel range
- Kapton Wires

New Focus models 83xx-UHV-NM Ultra-High Vacuum Non-magnetic Picomotor™ Actuators with Kapton wires are available in 0.5 inch (12.7 mm) or 1.0 inch (25.4 mm) travel and can be used in UHV environments ( $10^{-9}$  Torr), VUV/EUV, and non-magnetic applications. Kapton wires utilize a relief mechanism improving the robustness of the actuator. Replacing standard or metric micrometers or integrated in Pico mounts, it becomes ideal for beam-steering applications in vacuum or in applications that are affected by magnetic materials. These actuators offers the same, better than 30-nm resolution with minimal backlash, along with excellent long-term stability and high stiffness, including the ability to maintain their set positions even in the power-off state.



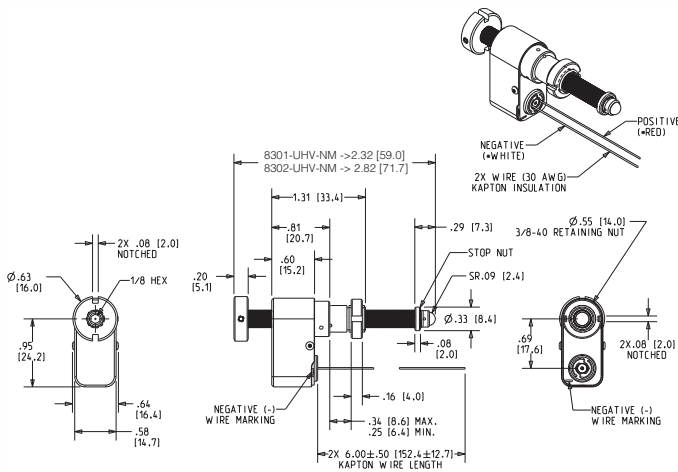
8321-UHV-NM



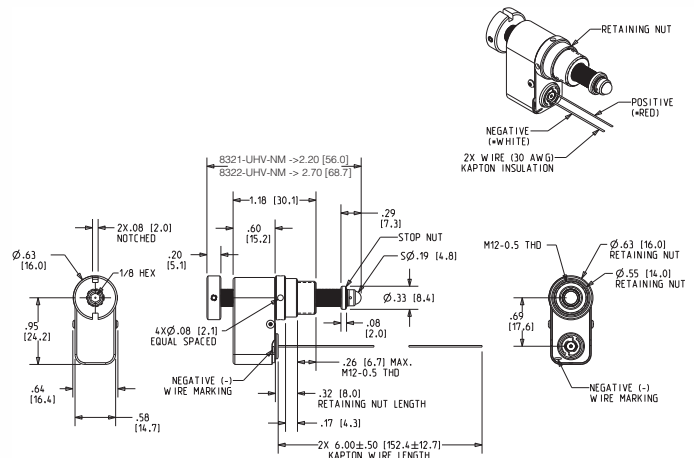
8322-UHV-NM

# Ultra High Vacuum Picomotor™ Actuators Non-magnetic with Kapton Wires

Specifications	8301-UHV-NM	8302-UHV-NM	8321-UHV-NM	8322-UHV-NM
Travel Range (mm)	12.7	25.4	12.7	25.4
Minimum Incremental Motion (nm)		<30		
Axial Load Capacity (N)		22		
Operating Temperature Range (°C)		10 to 40		
Vacuum Compatibility		10 <sup>-9</sup> Torr		
Wire Type (vacuum rated, 152mm, unterminated)		Kapton		
Connector Type		4-pin RJ-22 (non-vacuum-rated)		
Cable Length [ft. (m)] (unterminated, non-vac)		7 (2.1)		
Mounting	0.375 in. Shank (9.5 mm Shank)		12 x 0.5 mm Thread (12x0.5-mm thread)	



830X-UHV-NM



832X-UHV-NM

Note: Shank thread 3/8-40 for std and M12-0.5 for Metric."

Model	Description
8301-UHV-NM	Ultra-High Vacuum, Non-Magnetic Picomotor Actuator, 0.5 in. Travel, 0.375 in. Shank with Kapton Wires
8302-UHV-NM	Ultra-High Vacuum, Non-Magnetic Picomotor Actuator, 1.0 in. Travel, 0.375 in. Shank with Kapton Wires
8321-UHV-NM	Ultra-High Vacuum, Non-Magnetic Picomotor Actuator, 12.7 mm. Travel, 12x0.5 Metric Thread Shank with Kapton Wires
8322-UHV-NM	Ultra-High Vacuum, Non-Magnetic Picomotor Actuator, 25.4 mm in. Travel, 12x0.5 Metric Thread Shank with Kapton Wires
8742-4-KIT	Four-Axis 8742 Picomotor Controller/Driver Kit
8758	Hand Control Pad for 874X Picomotor Controller/Drivers

\* COLOR OF BOTH KAPTON WIRES ARE IDENTICAL. COLOR NOTATION IS FOR REFERENCE TO POLARITY PER USERS MANUAL.



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