N-900C004 Mini XYZ Stage, Nonmagnetic, PiezoWalk® Motors

Vacuum Compatible, Self-locking, High Resolution, for SEM

PiezoWalk® Working Principle
PiezoWalk® technology overcomes the limitations of conventional piezo drives and combines virtually unlimited travel ranges with high stiffness in a very small package. NEXACT® linear motors provide piezo-class resolution and millisecond responsiveness. The special drive design reduces the operating voltage to 45 V and below.

Non Magnetic Design
The N-900C004 is a customized PiezoWalk® linear motor-driven miniature XYZ stage for SEM or any other application where magnetic drive systems are not permissible. All components and materials employed in the stage and motor are non-magnetic and non-magnetizable.

Non-Magnetic & Vacuum Compatible Working Principle
For Operation in Strong Magnetic Fields, such as MRI
Patented PiezoWalk® Motor
Travel Range to 10 mm
Open-Loop with Sub-Micrometer Step Size:
  Designed to Align Samples
  5 N Force
Self-Locking at Rest, No Heat Generation
Custom Designs Available

Ordering Information
N-900C004
Miniature XYZ Positioning Stage, Piezo-Motor-Driven, Non-Magnetic

E-861
PiezoWalk® Motor Controller/Driver, Desktop

E-862
PiezoWalk® Motor Controller/Driver, OEM

Application Examples
- SEM
- Medical Technology
- MRI
- High Energy Physics

PiezoWalk® Motors
Nonmagnetic PiezoWalk®
XYZ miniature stage.
Network connector for size comparison

Controllers for PiezoWalk® motors.
E-861 desktop version left and E-862 OEM version (right)

Preliminary Data

<table>
<thead>
<tr>
<th>Models</th>
<th>N-900C001</th>
<th>Units</th>
<th>Tolerance</th>
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</thead>
<tbody>
<tr>
<td>Active axes</td>
<td>XYZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive type</td>
<td>NEXACT® piezo motor</td>
<td></td>
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<tr>
<td>Travel Range</td>
<td>10</td>
<td>mm</td>
<td></td>
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<tr>
<td>*Open-Loop Step size (in step mode)</td>
<td>10 nm to 5 µm</td>
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<tr>
<td>Travel range in analog operation</td>
<td>7 (E-861) 5 (E-862)</td>
<td>µm</td>
<td>max.</td>
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<td>Recommended operating temperature</td>
<td>10 to 40 °C</td>
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<td>Mass</td>
<td>150</td>
<td>g</td>
<td>±5%</td>
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<tr>
<td>Connector</td>
<td>HD Sub-D, 15 pin</td>
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*Depends on drive electronics.
N-900C004, dimensions in mm

Individual stage available as P/N N-900C003