

# N-900C001 Nonmagnetic PiezoWalk® Motor Actuator

## Long Travel, High Resolution, for Operation in Strong Magnetic Fields



The N-900C001 actuator is based on PI's patented NEXACT® piezo linear motor technology and is built exclusively from non-magnetic components.

- Non-Magnetic Working Principle
- For Operation in Strong Magnetic Fields, such as MRI
- Patented PiezoWalk® Motor
- Travel Range to 70 mm
- Self-Aligning Design
- Sub-Micrometer Step Size
- 5 N Force
- Self-Locking at Rest, No Heat Generation
- Custom Designs Available

### Ordering Information

**N-900C001**  
Nonmagnetic Piezo Motor Actuator

### E-861

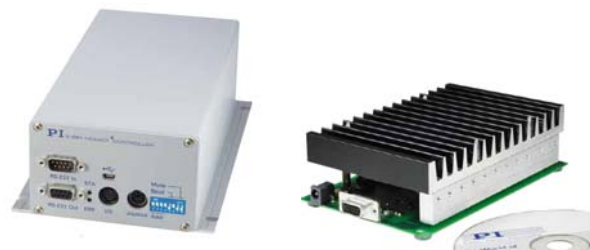
PiezoWalk® Motor Controller/Driver,  
Desktop

### E-862

PiezoWalk® Motor Controller/Driver,  
OEM

### Application Examples

- Medical Technology
- MRI
- High Energy Physics



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

### 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® actuators provide piezo-class resolution and millisecond responsiveness. The special drive design reduces the operating voltage to 45 V and below.

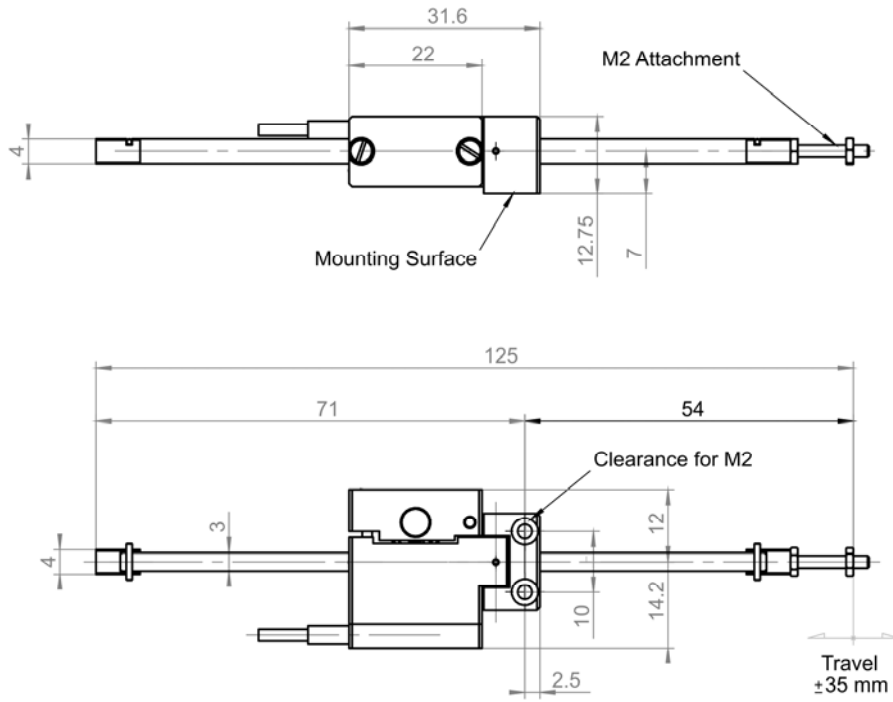
### Non Magnetic Design

The N-900C001 is a customized PiezoWalk® linear actuator for applications in very strong magnetic fields, such as encountered in MRI systems. All components and materials employed in the actuator are non-magnetic and non-magnetizable.

### Preliminary Data

Models	N-900C001	Units	Tolerance
Active axes	X		
Drive type	NEXACT® linear drive		
Travel Range	70	mm	
*Step size (in step mode)	10 nm to 5 µm		
Travel range in analog operation	7	µm	max.
Push/pull force	5 (E-861) 4 (E-862)	N	typ.
Step frequency	1.0	kHz*	max.
Recommended operating temperature	10 to 40 °C	°C	
Material	PZT, ceramic, AL, 300 series stainless steel		
Mass	30	g	±5%
Cable length	2	m	±0.1 m
Connector	HD Sub-D, 15 pin		

\*Depends on drive electronics.



N-900C001, dimensions in mm