# Linear Actuator with Piezo Motor

### **Inexpensive and Easy to Integrate**



### N-422

- Easy integration: Two mounting versions
- Silent: Operating frequency to >20 kHz
- Velocity over 5 mm/s
- Submicron resolution
- Holding force to 10 N

#### Piezo motor direct drive

OEM actuator without position sensor. Continuous motion with step frequencies in the ultrasound range. Mounting via thread on the front or on a level surface perpendicular to the direction of motion.

#### Inertia drive

Self-locking, no heat generation at rest. Noiseless drive with operating frequencies over 20 kHz. Resolution in step mode approx. 300 nm, open loop.

#### **Application fields**

Industry and research. Alignment of optical elements, micromanipulation, biotechnology, cell manipulation, medical technology.

Motion	Unit	Toleran- ce	N-422.50
Active axes			X
Travel range in X	mm		35
Maximum velocity in X, unloaded	mm/s	Min.	5
Maximum step frequency	kHz	Max.	20
Step size in full step mode	nm	Тур.	300

Drive Properties	Unit	Toleran- ce	N-422.50
Operating voltage	Vpp	Max.	48
Drive type			Piezoelectric inertia drive
Maximum power con- sumption	w	nominal	15 (actuator), 30 (driver input)
Drive force in X	N	Max.	7

Mechanical Properties	Unit	Toleran- ce	N-422.50
Stiffness in X	N/µm	±20%	>4
Holding force in X, passive	N	Min.	10
Overall mass	g	±5%	25
Material			Stainless steel; ceramic (runner)



Miscellaneous	Unit	Toleran- ce	N-422.50
Operating temperature range	°C		0 to 50
Connector			LEMO FFA.0S.303.CLAC27
Cable length	m	+30 / -0 mm	2
Recommended controllers / drivers			E-872.401

Maximum step frequency and maximum velocity depending on the drive electronics. Ask about customized versions.



# Drawings / Images



N-422, dimensions in mm. Note that a comma is used in the drawings instead of a decimal point.

## Order Information

### N-422.50

Linear actuator with piezo motor; piezoelectric inertia drive; 35 mm travel range; 7 N feed force; 5 mm/s maximum velocity; 2 m cable length