

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.

Fields of application

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

Specifications

Motion	N-422.50	Unit	Tolerance
Active axes	X		
Travel range	35	mm	
Step size (in step mode)	300	nm	typ.
Step frequency*	20	kHz	max.
Max. velocity*	5	mm/s	min.

Mechanical properties	N-422.50	Unit	Tolerance
Stiffness in motion direction	>4	N/ μ m	\pm 20 %
Push/pull force (active)	7	N	max.
Max. holding force (passive)	10	N	min.

Drive properties	N-422.50	Unit	Tolerance
Drive type	Inertia drive		
Operating voltage	48	V _{pp}	max.
Power consumption	15 (actuator) 30 (driver input)	W	nominal

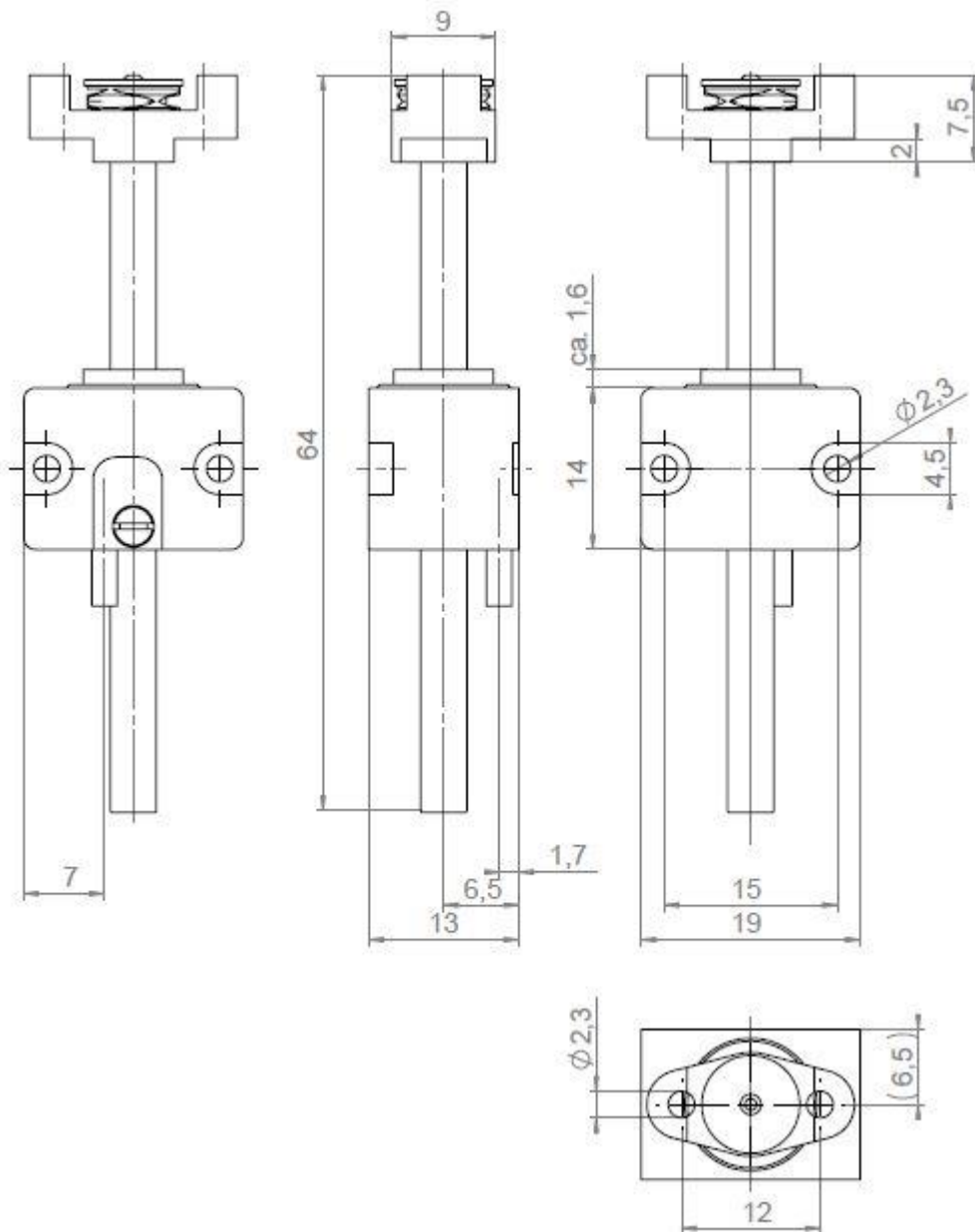
Miscellaneous	N-422.50	Unit	Tolerance
Operating temperature range	0 to 50	°C	
Material**	Stainless steel		
Dimensions	21.5 × 18 × 13 + runner	mm	
Mass	25	g	\pm 5 %
Cable length	1.5	m	\pm 10 mm
Connector	LEMO 3-pin		
Recommended electronics	E-872.401		

* Depending on drive electronics.

** Ceramic runner.

Ask about customized versions.

Drawings / Images



N-422, dimensions in mm

Ordering Information

N-422.50

OEM linear drive, 10 N, 35 mm, with mounting holes

Accessories

N-400.A02

Extension cable, LEMO connector(s) 3-pin to LEMO connector(s) 3-pin, 2 m

N-400.A05

Extension cable, LEMO connector(s) 3-pin to LEMO connector(s) 3-pin, 5 m

N-400.A08

Extension cable, LEMO connector(s) 3-pin to LEMO connector(s) 3-pin, 8 m

N-400.A12

Extension cable, LEMO connector(s) 3-pin to LEMO connector(s) 3-pin, 12 m

N-400.ALM

Adapter, LEMO 3-pin to Mini DIN

N-400.AML

Adapter, Mini DIN to LEMO 3-pin