

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	Tolerance	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	Typ.	300

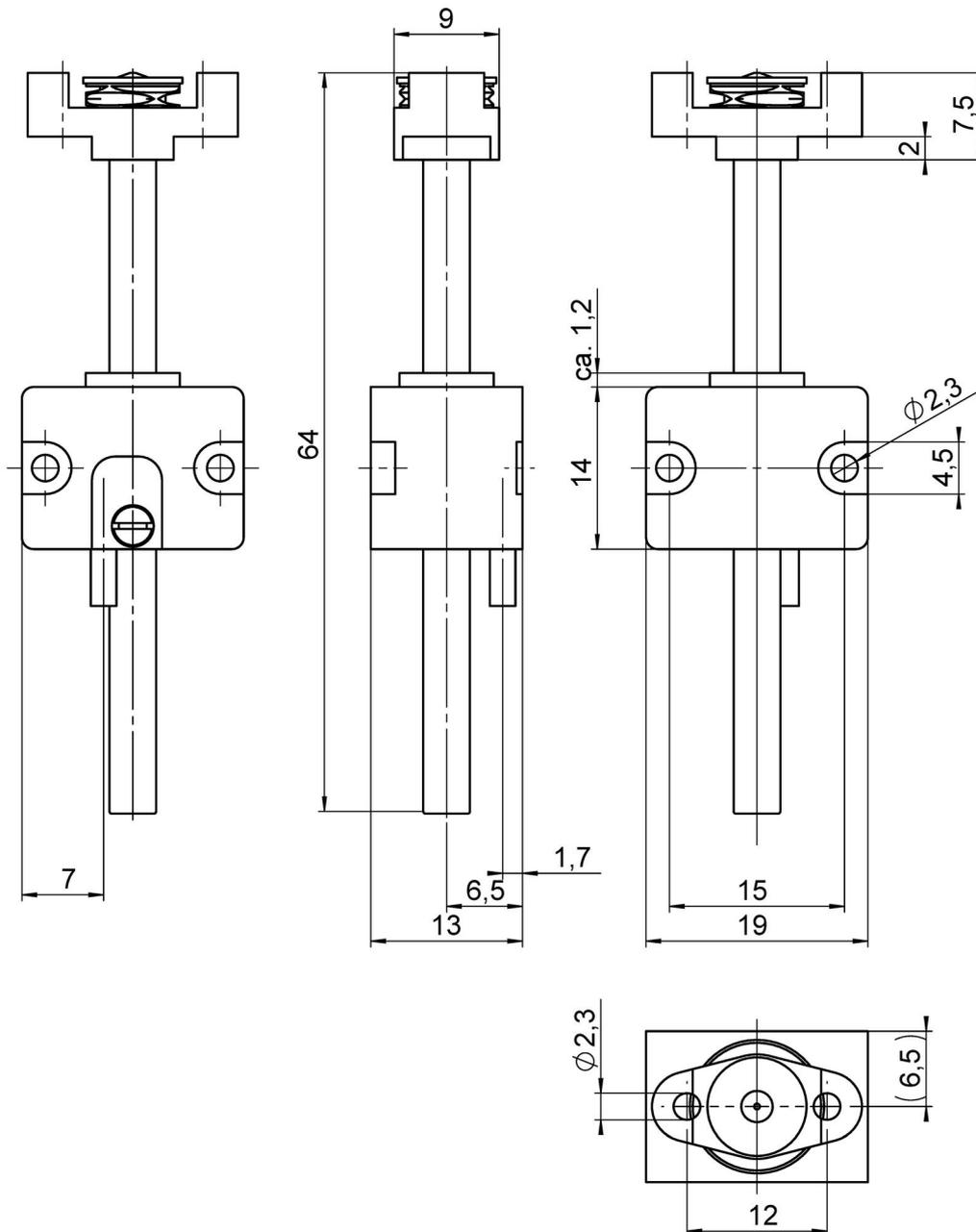
Drive Properties	Unit	Tolerance	N-422.50
Operating voltage	Vpp	Max.	48
Drive type			Piezoelectric inertia drive
Maximum power consumption	W	nominal	15 (actuator), 30 (driver input)
Drive force in X	N	Max.	7

Mechanical Properties	Unit	Tolerance	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	Tolerance	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