

UHV linear actuators | AC-300 & AC-600

Compact, accurate and high load capacity linear actuators dedicated to UHV and/or radiation environment applications



UHV stepper drive
Fine control of the position

Stable position when
switching off the power
supply

UHV Precision ball screw
Nanometer resolution

Kapton wires (PTFE-free)

Design and manufacture fully compliant
with UHV requirements

Optional custom interface
Double universal joint



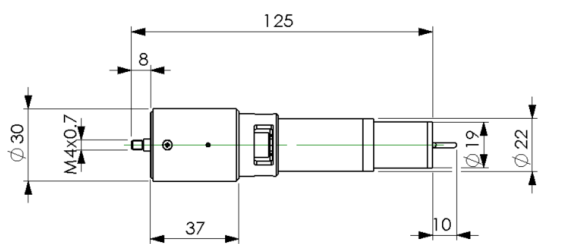
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Technical specifications

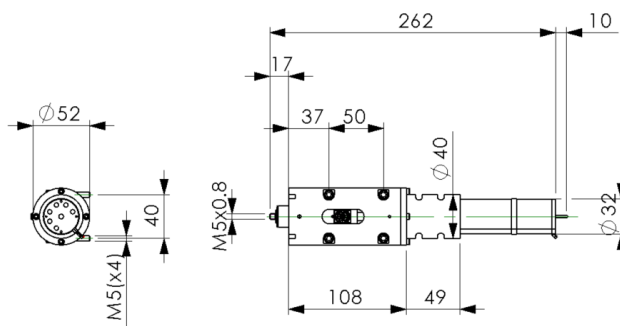
	AC-300	AC-600
Range	± 3 mm	± 10 mm
Max. thrust (push/pull) @ 48VDC and 1000 full steps/s	300 N	600 N
Min. incremental step	20 nm	18 nm
Motor type	2-phase stepper 0.6 A / 2.1 Ω / 0.85 mH per phase	2-phase stepper 1.2 A / 1.25 Ω / 1.2 mH per phase
Hard stop End travel switch	Yes Option ⁽¹⁾	Yes Option ⁽¹⁾
Weight	470 g	1550 g
Electrical interface	2 m long free ended Kapton wires ⁽²⁾ (2 wires per phase + 2 for built-in type K thermocouple)	

- ⁽¹⁾ contact us for defining the integration of the switches
⁽²⁾ specific cable length and/or connector can be quoted optionally

Interfaces



AC-300



AC-600

Notes:

- Radial output for the electrical wires can be proposed alternatively, upon request.
- AC-600 mechanical fixation is done via the 4x M5 screws
- AC-300 mechanical fixation is done by clamping on the Ø30 mm

Options

- HV (10⁻⁶ mbar) or UHV (10⁻¹⁰ mbar) environment
- End travel switches
- Interface with double universal joint for actuating rotation stages (up to ± 30 mrad in two directions) or for managing radial misalignment

