SEALED LINEAR LENS ACTUATOR



KEY FEATURES

- MPS ball screw based motorized compact mechanism (low friction – maintenance free system)
- Innovative and narrow mechanical design for module stacking
- Dust free optical path
- Lens size up to 2"
- Long strokes up to 40 mm
- Bespoke design

OVERVIEW

This optical platform based on the stacking of several sealed linear actuators is the key solution for precisely driving optics in working environments involving perfect cleanness. Thanks to the presence of high quality bellows, the ball screw and guiding rods are fully encapsulated, leaving the optical path clean for extended lifetime use of the lenses. Designed as a modular system, 1 to 3 linear actuators can be stacked in parallel to realize focus or zoom optical functions. The lens holders will be designed according to your lens specifications and positions. Conceived to ensure long linear displacements with minimized frictions, this platform realizes perfectly smooth movements and avoid costly maintenance requirements.

TECHNICAL SPECIFICATIONS

Spécifications*		
Max. stroke per actuator	[mm]	40
Max. nominal speed	[mm/s]	80
Motor type		Brushless DC
Motor reference		Faulhaber BX4
Motor control		Closed loop
Encoder		Yes
Drive mechanism		Ball screw
Unidirectional Z repeatability per actuator	[µm]	+/- 4
Bidirectional Z- repeatability per actuator	[µm]	+/- 5,5
Bidirectional X,Y repeatability per actuator	[µm]	+/- 4,5
Bidirectional angular repeatability per actuator	[mrad]	+/- 0,1
Weight per actuator	[g]	440
Dimension : X (1 actuator)	[mm]	24 (Base plate: 54)
Dimension : X (2 actuators)	[mm]	48 (Base plate: 78)
Dimension : X (3 actuators)	[mm]	72 (Base plate: 102)
Dimension : Y	[mm]	50
Dimension : Z	[mm]	257 (Base plate: 271)
Bellow material		NBR; FKM; Others

Remark: Device under development, values subject to modification * Please feel free to contact us for any customization request