

L-239

High-Load Linear Actuator

Dynamic, High-Resolution Precision Drive



- High feed force to 300 N
- Travel range 52 mm (2")
- Resolution 0.1 μm
- Velocity to 50 mm/s
- Preloaded, low-friction ball screw
- Vacuum-compatible versions to 10^{-9} hPa on request

Reference-class linear drive

High-resolution high-load linear actuator. Stepper motor for high torque. Highly dynamic, closed-loop DC motors for high velocities. Robust design for industrial environments. Versions available for vacuum environments to 10^{-9} hPa.

High-quality components

Ground ball screws for high velocities and number of cycles.

Stable bearing at shaft output reduces lateral forces on the pusher.

Nonrotating tip for uniform motion prevents wobble, torque, and wear at the point of contact.

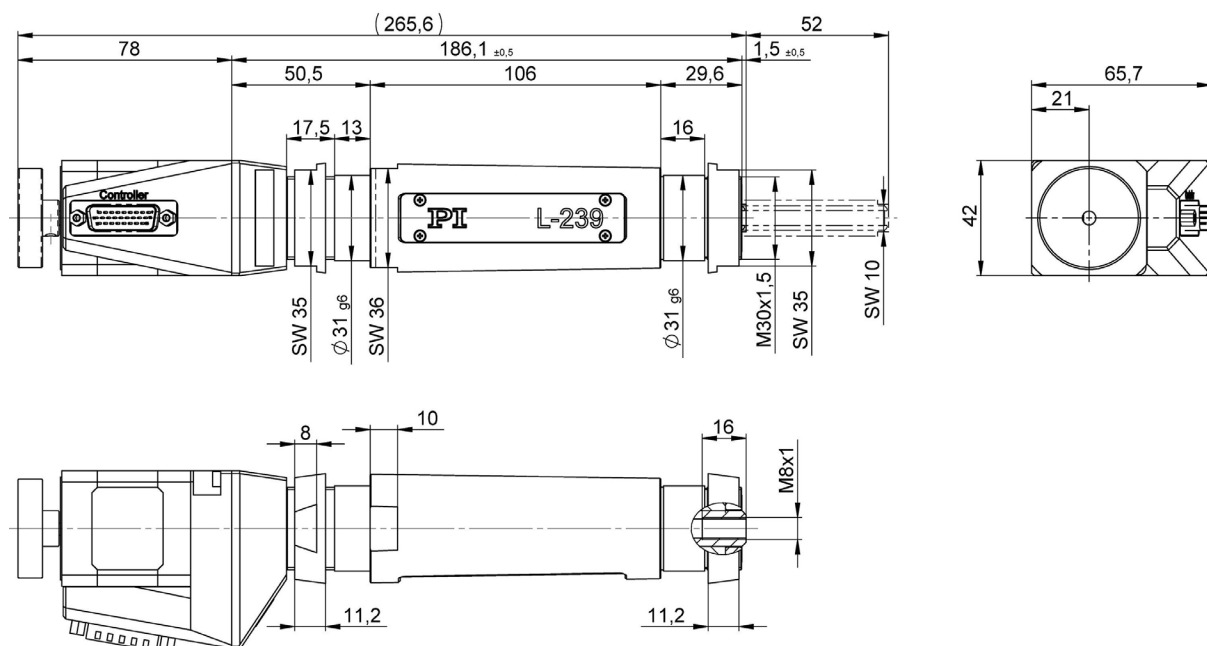
Noncontact limit switches protect the mechanics. A direction-sensing reference point switch supports automation applications.

Specifications

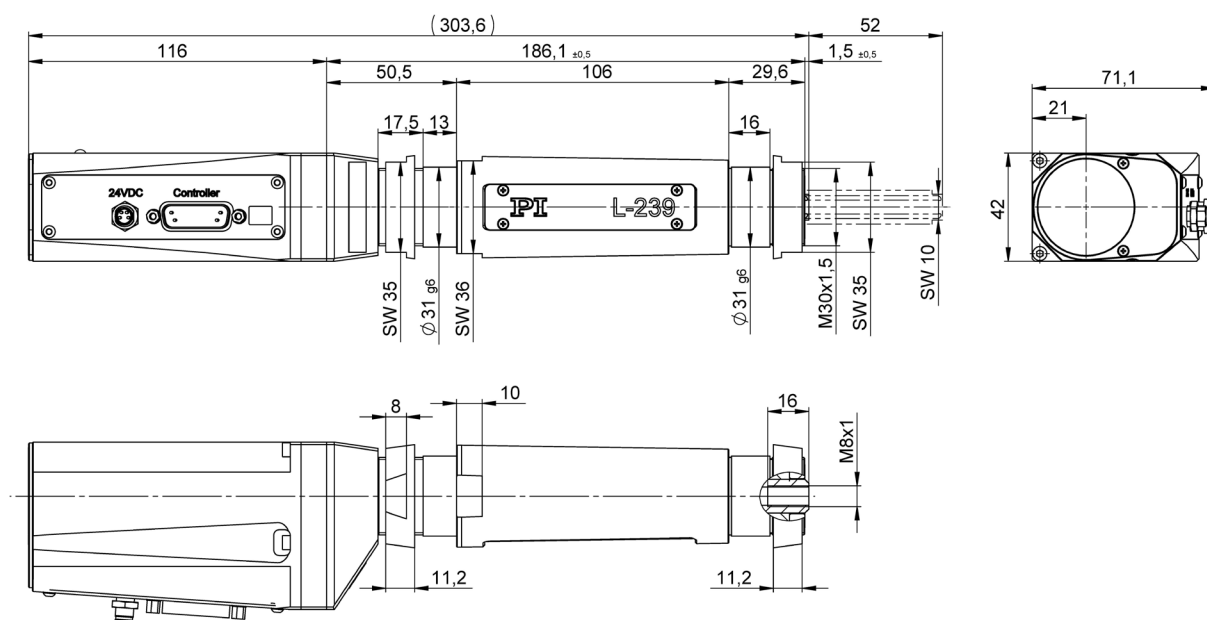
	L-239.50AD	L-239.50SD	Unit	Tolerance
Motion and positioning				
Travel range	52	52	mm	
Minimum incremental motion	0.5	5 (full step)	µm	typ.
Backlash	2	2	µm	typ.
Unidirectional repeatability	0.5	0.5	µm	typ.
Velocity	50	25	mm/s	max.
Reference point switch repeatability	2	2	µm	typ.
Mechanical properties				
Spindle pitch	1	1	mm	
Push / pull force	200	300	N	max.
Permissible lateral force	10	10	N	max.
Drive properties				
Motor Type	DC motor	2-phase stepper motor*		
Reference and limit switches	Hall effect	Hall effect		
Miscellaneous				
Material	Aluminum, stainless steel	Aluminum, stainless steel		
Mass	1.7	1.65	kg	±5 %
Connector	Sub-D 15 (motor and encoder), 3 m cable incl.	HD Sub-D 26 (motor), 3 m cable incl. (HD Sub-D 26 to Sub-D 15)		
Recommended controllers/drivers	C-863 (single axis) C-884 (up to 4 axes)	C-663 Mercury step controller (single axis) SMC Hydra motion controller (double axis)		

*200 full steps/rev., max. 1.2 A/phase
Ask about custom designs!

Drawings and Images



L-239.50SD, dimensions in mm



L-239.50AD, dimensions in mm

Ordering Information

L-239.50SD

High-Load Linear Actuator, 31 mm \varnothing Shaft, Stepper Motor, 52 mm (2") Travel Range, 300 N Push Force, Magnetic Limit Switches

L-239.50AD

High-Load Linear Actuator, 31 mm \varnothing Shaft, DC Motor, 52 mm (2") Travel Range, 200 N Push Force, Magnetic Limit Switches

Ask about custom designs!