

Description:

The LA series is designed for industrial applications with high repeatability. The main body material is rigidity aluminum alloy treated with black anodic oxidation to meet heavy load, multi-dimension combinations requirements. The mechanical mechanism adopts ball screw drive and equipped with standard two-phase stepper motor, which can provide high resolution and positioning accuracy.

Features:

- Adopting precision ball screw and standard two-phase stepper motor to provide high resolution and positioning accuracy.
- Smooth linear-slider guides enables the stage running with a high speed.
- The mounting surface of the guide adopts precision machining technology, which makes the product have high motion accuracy.
- Built-in three sensors (positive and negative limit and zero limit), the use of high flexible cable and cable module, more convenient maintenance
- With three built-in sensors (positive, negative, and zero) and a highly flexible cable and cable module, this design makes maintenance easier.

Naming rules:

LA 100-60 (-ST528)

Series code:
LA: precise level,
aluminum alloy, ball
screw, linear-slider guides

Travel range:
50:50mm
100:100mm
150:50mm

Stage surface
size(mm):
60:60mm×60mm

Motor type:
None (default): two-phase stepping
motor
ST528: five-phase 28 stepping motor

Selection chart:

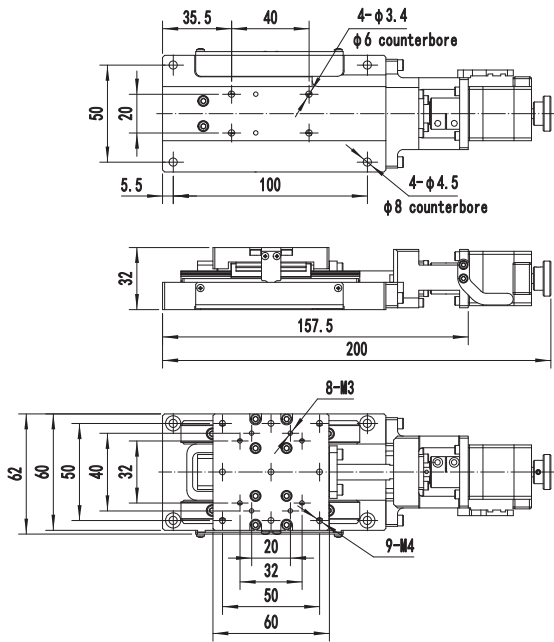
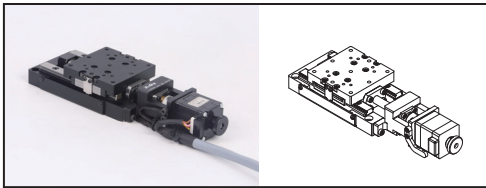
Model		LA50-60	LA100-60	LA150-60
Mechanical specifications	Travel range(mm)	50	100	150
	Stage surface size(mm)	60×60		
	Transmission mechanism	Ball screw, Φ8×2		
	Guide mechanism	linear-slider guides		
	Main body material, surface treatment	Black anodized aluminum alloy		
	Weight(Kg)	0.73	0.85	1
Accuracy specifications	Resolution(step/half-step)(μm)	10/5		
	20-fine-subdivision resolution(μm)	0.5		
	Highest speed(mm/s)*	20		
	Repositioning accuracy(μm)	≤±2		
	Static clearance(μm)	≤1		
	Backlash(μm)	≤3		
	Static parallelism(mm)	≤0.08		
	Dynamic straightness(μm)	≤20		
	Dynamic parallelism(μm)	≤30		
Specialty specifications	Minimum incremental motion(μm)**	≤2		
	Repositioning accuracy while micro-step motion(μm)	≤±1		
	Backlash while micro-step motion(μm)	≤0.5		
Electrical specifications	Motor and its stepping angle(°)	Two phase 28 stepping motor, 1.8		
	Brand and model number of motor	Shinano, STP-28D1003-08		
	Working current(A)	1.3		
	Torque of motor(N-m)	0.0785		
	Brand and model number of stepping driver(optional)	Moons, SR2		
	Type of plug for stage	DB9(pin)		
	Type of cable for stage	High flexibility cable(Helukabel, Germany)		
	Length of connection cable(m)	0.2		
	Position-limit sensors(built-in)	2×GP1S09xHCPI(Japan SHARP)		
	Origin-point sensors(built-in)	1×GP1S09xHCPI(Japan SHARP)		
	Voltage of power supply for sensors(V)	DC5~24V±10%		
	Control output	NPN open collector output DC5 ~ 24V 8mA or less Residual voltage 0.3V or less(when load current is 2mA)		
	Status of output ports	output ON when sensor is blocked		
Maximum load capacity	Horizontal direction(Kg)	4		
	Vertical direction(Kg)	2		
	Inverted direction(Kg)	2		

*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

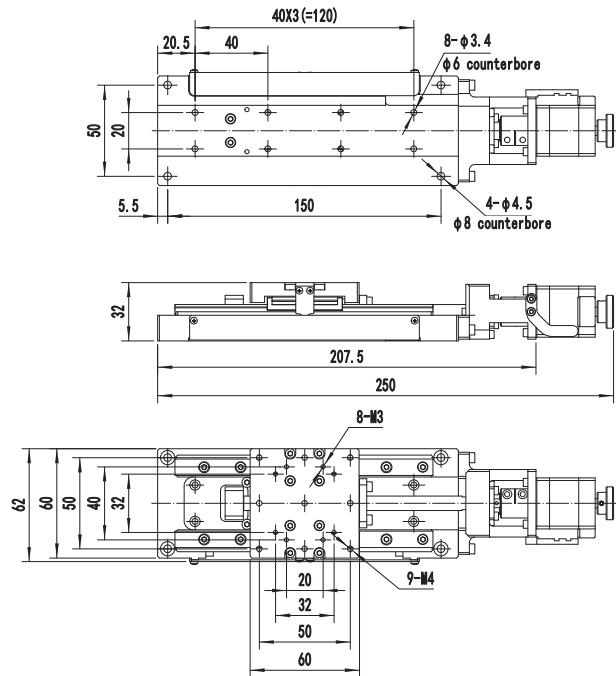
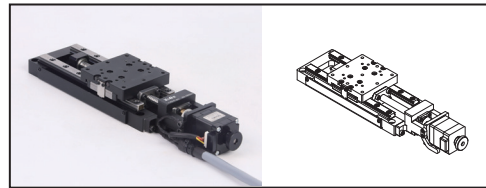
**Note: ≤2μm(when using Zolix TMC controller), the minimum incremental motion is less than or equal to 5μm when using Zolix MC600 and ZC300 controller.

Dimensions:

LA50-60



LA100-60



LA150-60

