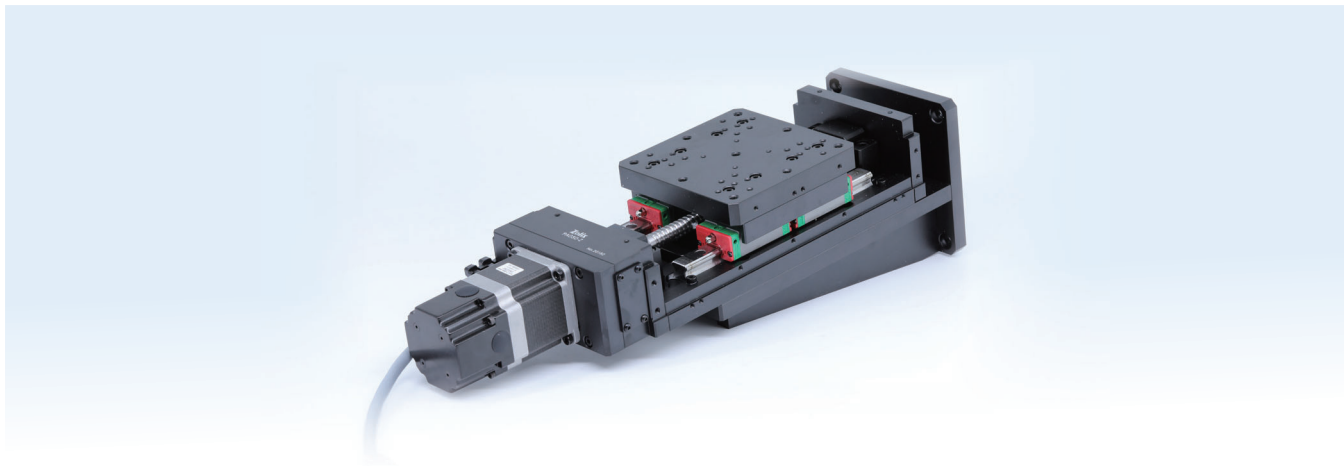


PAxx-Z Series Precise Motorized Vertical-Motion Stages



Description:

PAxx-Z series precise motorized vertical-motion stages are new-developed products based on Zolix's standard PA series motorized linear stages, adding a set of right-angle fixing block and power-failure protection unit. Except motion direction and loading capability, other parameters are same as those of standard PAxx products. PAxx-Z is used for fine adjustments in Z-direction.

Naming rules:

PA 100-(ST242)(-C)(-SR)-Z

Series code :
PA: precision, ball
screws, linear-slider
guides, aluminum alloy.

Travel range :
050:50mm
100:100mm
150:150mm
200:200mm
300:300mm
400:400mm
600:600mm
800:800mm
1000:1000mm

Motortype :
None(default): Two-phase 57 stepping
motor
ST242: Two-phase 42 stepping motor
ASP1: Panasonic 100W Ac servo
motor
ASY2: Yaskawa 200W AC servo motor
P1: Panasonic 100w motor mounting
plate and shaft coupling
Y2: Yaskawa 200w motor mounting
plate and shaft coupling

Way to install
Z: applied in vertical

Sensor position:
None(default): built in
SL: external & left side
SR: external & right side

Type of
protection: None(default)
: without protection
C: with protection

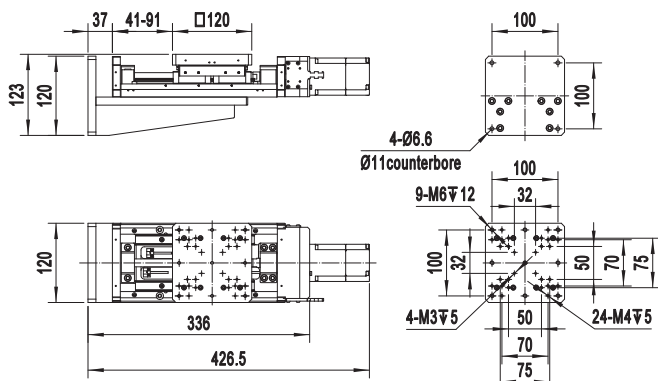
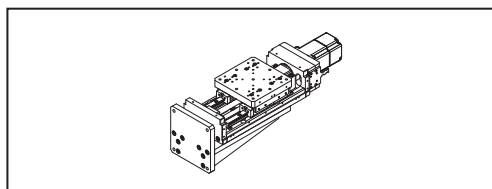
Selection chart:

Model		PA050-Z	PA100-Z	PA150-Z	PA200-Z	PA300-Z	PA400-Z	PA600-Z	PA800-Z	PA1000-Z
Mechanical specifications	Travel range(mm)	50	100	150	200	300	400	600	800	1000
	Stage surface size(mm)	120×120				150X150		200X200		
	Transmission mechanism	precision ball screw Φ12×4				precision ball screw Φ16×5		precision ball screw Φ25×5		
	Guide mechanism	linear-slider guides								
	Main body material, surface treatment	Black anodized aluminum alloy								
	Weight(Kg)	7.6	8.2	9	9.7	12.3	14	29.5	35	40
	Shaft coupling(OD - OD1-OD2)(mm)	30-6.35-8						32-8-12		
Accuracy specifications	Resolution(μm)	20				25				
	20-fine-subdivision resolution(μm)	1				1.25				
	Highest speed(mm/s)*	40				50				
	Single-direction positioning accuracy	≤30						/		
	Repositioning accuracy(μm)	≤±3						≤±5		
	Static clearance(μm)	≤3								
	Backlash(μm)	≤5								
	Static parallelism(μm)	≤0.1						≤0.12		
	Dynamic straightness(μm)	≤20				≤25		≤15μm/100mm		
	Dynamic parallelism(μm)	≤25				≤30		≤15μm/100mm		
	Yaw(")	≤50						/		
	Pitch(")	≤55				≤60		/		
Electrical specifications	Motor and its stepping angle(°)	Two-phase 57 stepping motor, 1.8								
	Brand and model number of motor	Shinano, SST59D3201						Shinano, SST59D5301-SD		
	Working current(A)	2.0						3.0		
	Holding torque of motor(N·m)	1.3						1.57		
	Brand and model number of stepping driver(optional)	Moons, SR4								
	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×PM-L25(SUNX, Japan)								
	Origin-point sensors(built-in)	1×PM-L25(SUNX, Japan)								
	Voltage of power supply for sensors(V)	DC5~24V±10%								
	Current consumption(mA)	<60(total)								
	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	Position limit sensor: output ON when sensor is blocked; Origin-point sensor: output OFF when sensor is blocked;								
Maximum load capacity	Vertical direction-central(Kg)	15						30		

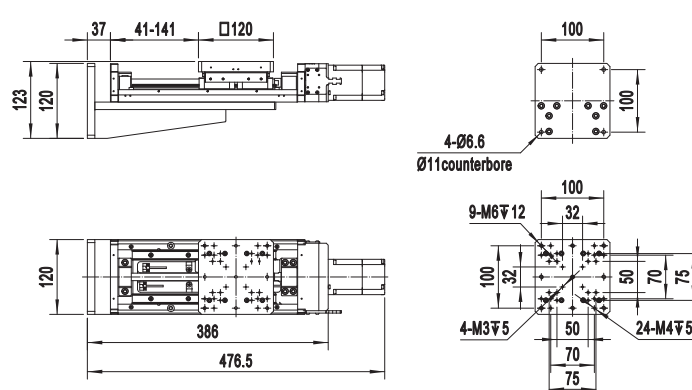
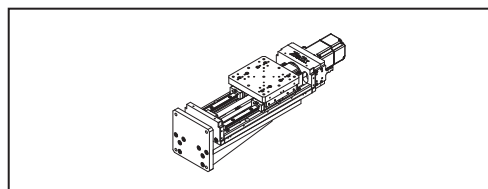
*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

Dimensions:

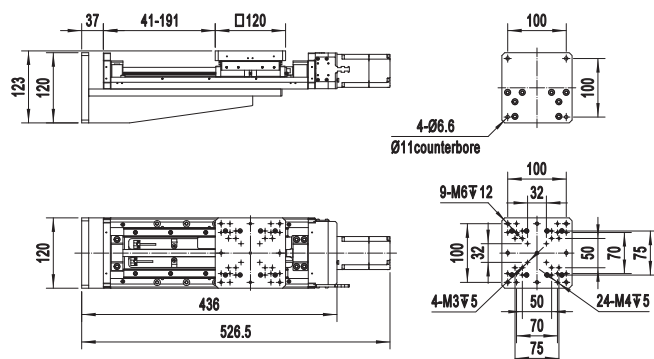
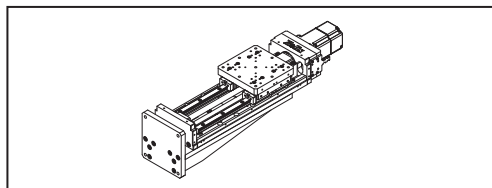
PA050-Z



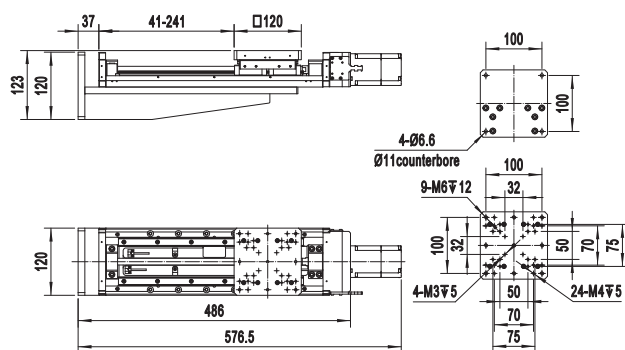
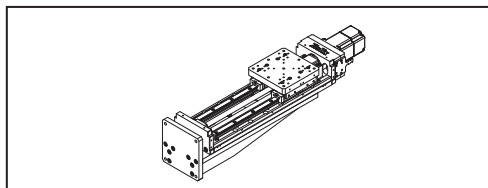
PA100-Z



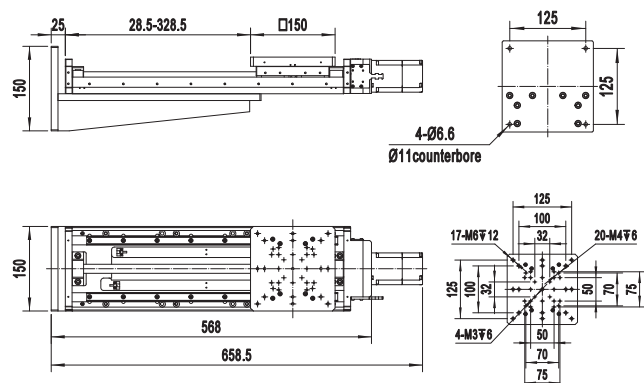
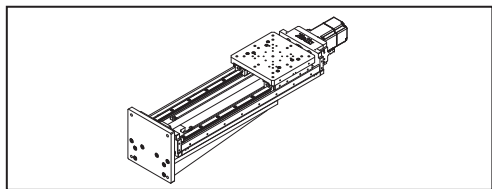
PA150-Z



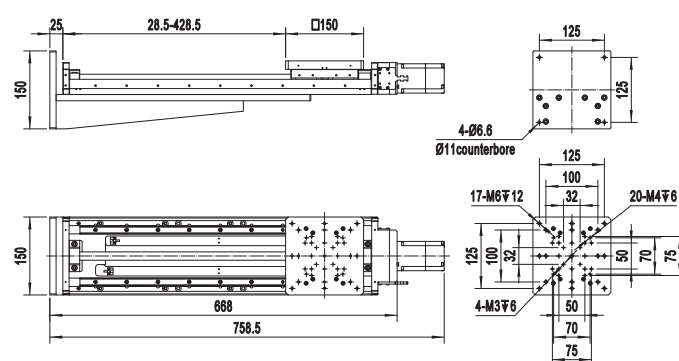
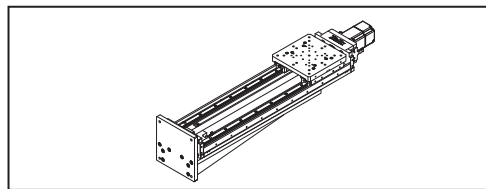
PA200-Z



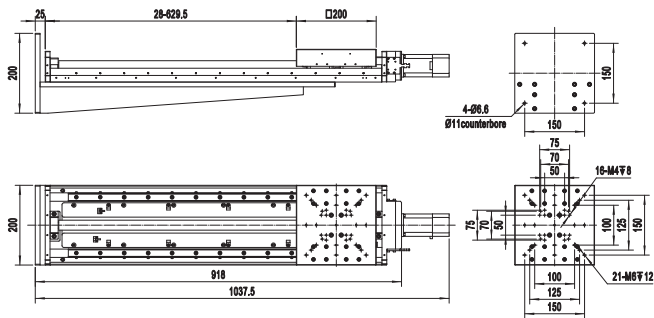
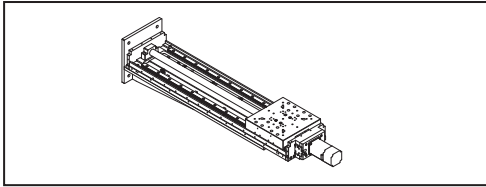
PA300-Z



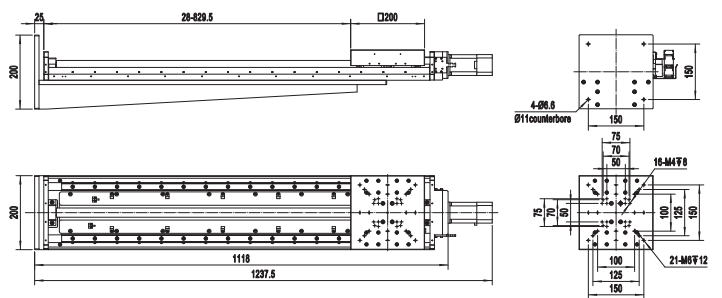
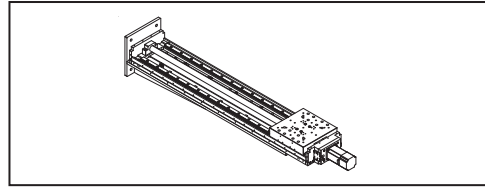
PA400-Z



PA600-Z



PA800-Z



PA1000-Z

