

PSAV series long travel range motorized vertical-motion stages



Description:

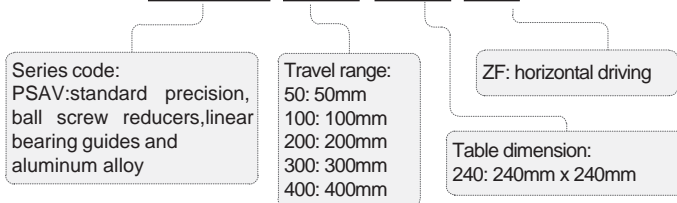
PSAV series motorized vertical-motion stages employ ball screw reducers to ensure ultra-high loading capability. The backlash clearance of ball screws reducers is much smaller than that of trapezoidal reducers and it is helpful to provide higher motion accuracy and positioning accuracy. The smooth running is guaranteed by using selected aluminum alloy and four pieces of linear bearing guides. A wider travel range of 50-400mm is offered by this series products which can meet most of customers' requirements. This is a series of motorized vertical-motion stages to be suitable for the applications which need higher loading capability and longer travel range in optical experiments, fine positioning and fine processing.

Main characteristics:

- Longer travel range and higher loading capability are guaranteed by using ball screw reducers
- Four pieces of linear bearing guides constitute guiding mechanism to ensure high motion accuracy and smooth running
- Long travel range is up to 400mm
- Reliable standard two-phase 57 stepping motors have characteristics of high torque and high loading capability

Naming rules:

PSAV 100-240 ZF



Selection chart:

Model number		PSAV50-240ZF	PSAV100-240ZF	PSAV200-240ZF	PSAV300-240ZF	PSAV400-240ZF
Mechanical specifications	Travel range(mm)	50	100	200	300	400
	Table dimensions(mm)	240×240				
	Transmission mechanism	Φ40x5 ball screw reducers, reduction ratio is 4:1				
	Guides (guiding mechanism)	4* linear-bearing guides				
	Main body materials and surface treatments	Black anodic-oxidation aluminum-alloy				
	Weight (Kg)	14	16	20	24	28
Accuracy specifications	Resolution (step/half-step) (μm)	6.25/3.125				
	8-fine-subdivision resolution (μm)	0.781				
	Highest speed (mm/s) *	12.5				
Electrical specifications	Motor and its stepping angle (°)	Two-phase 57 stepping motor, 1.8				
	Model number of motor**	MS-57BYG250CSC				
	Working current (A)	2.4				
	Holding torque of motor (mN·m)	1900				
	Model number of stepping driver (optional)	Moons, SR4				
	Type of plugs for stages	1*DB9 (pin)				
	Position-limit sensors (built-in)	2*KX-SS-5GL2				
	Voltage of power supply for sensors (V)	DC5~24V ±10%				
	Output for control	Dry contact point output				
	Status of output ports	output ON when sensor is triggered				
Operating load	Horizontal direction (Kg)***	200	180	150	120	100

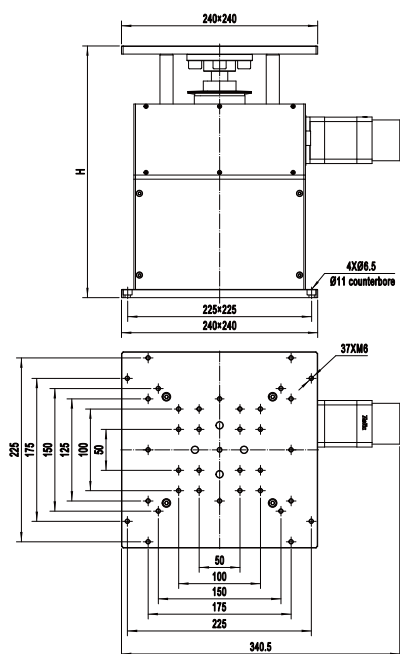
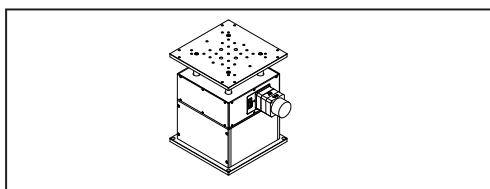
* Highest speed is measured with the conditions of zero-load and motors being worked at 600rpm

**Power failure protector must be turned on before motors running

***Time-delay protection circuits need to be added when loading is higher than 50Kg

Dimensions:

PSAVxx-240ZF



Model number	PSAV50-240ZF	PSAV100-240ZF	PSAV200-240ZF	PSAV300-240ZF	PSAV400-240ZF
Height(mm)	251~301	308~408	411~611	515~815	627~1027