



Description:

XYR series alignment stages are one kind of three-axis parallel alignment stages to solve the requirements of high-precision, high-reuse frequency alignment, bonding and fitting of workpieces on industrial production lines. Each XYR alignment stage is composed of four sets of modules on the top surface, the bottom surface and the middle. Each set of modules is guided by crossed-roller guide and crossed-roller bearing. The belt drive module(3 sets) is equipped with small lead ball screw and a standard stepper motor, or a five-phase stepper motor or servo motor. A light-through hole or no through hole in the center can be designed according to the actual needs, which can realize the transmission and reflection alignment requirements respectively.

Features:

- Using ball screws to meet the requirement of high precision and high repetition operations.
- Better motion accuracy is guaranteed by employing crossed-roller guides and bearings.
- Standard modular-design principles present better uniformity of parts and shorter delivery time of products.
- The center can be designed with light-through hole or without light-through hole to fit different applications.
- Equipped with standard two-phase stepping motor, five-phase stepping motor or servo motor are optional.

Naming rules:

XYR 200 230 (S)(-CH)(-ST528)

Series code:
XYR: all-in-one XY three-axis stages

Dimension of table:
150: 150mm×150mm
200: 200mm×200mm

Baseplate dimension:
210: 210mm×210mm
230: 230mm×230mm
400: 400mm×400mm

Main body material:
None (default): black anodized aluminum-alloy
S: stainless steel

Central light-through hole
None (default): No hole
CH: There is a central light-through hole

Type of motors:
None (default): standard two-phase stepping motors
ST5xx: Optional five-phase stepping motors. xx refers to model number of motors
ASPx: Optional Panasonic servo motors. x refers to power code of servo motors Note: partial products can not employ servo motors

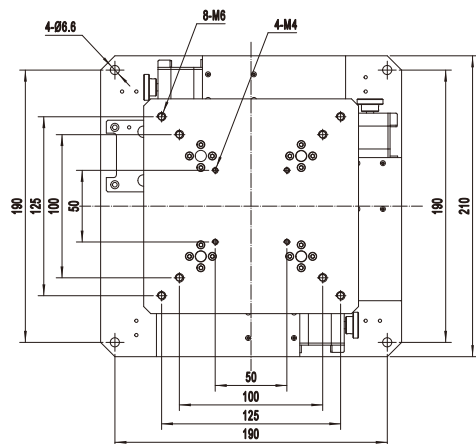
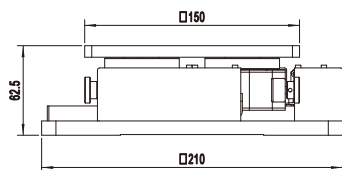
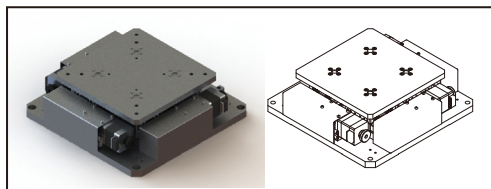
Selection chart:

	Model	XYR150210	XYR200230	XYR300400-CH
Mechanical specifications	Travel range for X- and Y-axis(mm)	±4.5	±10	±15
	Rotation angular range for θz-axis(°)	±5		
	Stage surface size(mm)	150×150	200×200	300×300
	Base plate dimension(mm)	210×210	230×230	400×400
	Overall height(mm)	62.5	76	98
	Transmission mechanism	precision ball screw, φ8×2		
	Guide mechanism	crossed-roller bearing guide		
	Main body material, surface treatment	Black anodized aluminum alloy		
	Weight(Kg)	6	8	15
Accuracy specifications	Resolution of XY axis(step/half-step)(μm)	10/5		
	20-fine-subdivison resolution of XY axis(μm)	0.5		
	Repositioning accuracy(μm)	≤±3		
	Static parallelism(mm)	≤0.03	≤0.04	≤0.05
	Dynamic parallelism(μm)	≤20		≤30
	Highest speed(mm/s)*	20		
Electrical specifications	Motor and stepping angle(°)	2-phase 28 stepping motor, 1.8	2-phase 42 stepping motor, 1.8	
	Brand and model number of motor	Shinano, STP-28D1003-08	Shinano, SST43D2126-10	
	Working current(A)	1.3	1.7	
	Holding torque of motor(N·m)	0.0785	0.456	
	Brand and model number of stepping driver(optional)	Moons, SR2		
	Type of plug for stage	1×DB9(pin)		
	Type of cable for stage	High flexibility cable(Helukabel, Germany)		
	Length of connection cable(m)	0.2		
	Position-limit sensors(built-in), for each axis	2×GP1S09xHCPI(Sharp, Japan)		2×PM-L25(SUNX, Japan)
	Origin-point sensors(built-in), for each axis	1×GP1S09xHCPI(Sharp, Japan)		1×PM-L25(SUNX, Japan)
	Voltage of power supply for sensors(V)	DC5~24V±10%		
	Control output	NPN open controller output DC5 ~ 24V 8mA or less Residual voltage 0.3V or less(when load current is 2mA)		NPN open controller output DC5 ~ 24V 8mA or less
	Status of output ports	Output ON when sensor is blocked		
	Algorithms and formulas on multi-axis motion	Can be provided(Free)		
	Software for stage control and	Can be provided(Extra charge needed)		
Maximum load capacity	Horizontal direction(Kg)	20	30	50

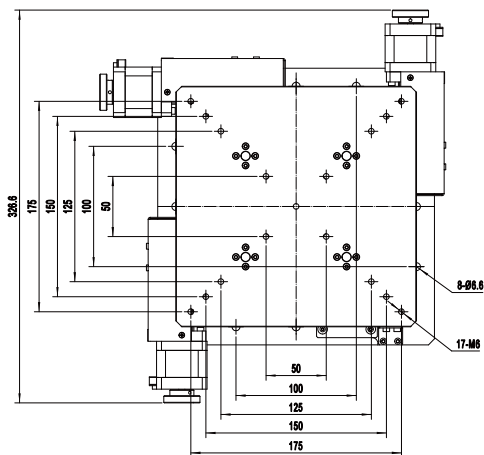
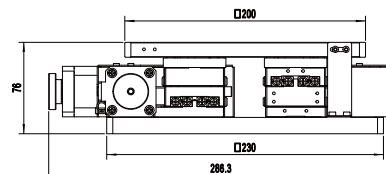
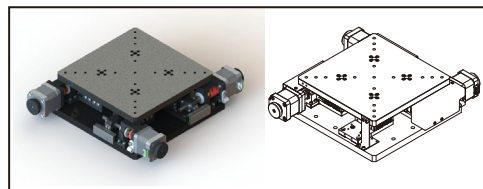
*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

Dimensions:

XYR150210



XYR200230



XYR300400-CH

