

Flat Integrated XY Stage



Features

- Non-contact direct-drive linear motor drive for high dynamic response
- Optical encoder for high precision
- High stiffness anti-creep cross roller guide
- Excellent positioning accuracy and dynamic performance

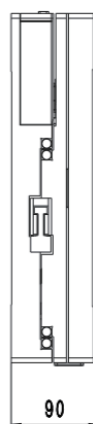
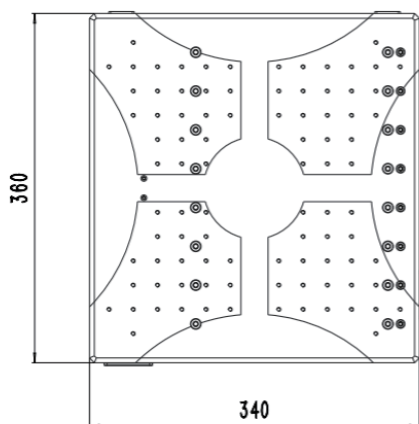
Description

The stage adopts XY unibody, orthogonality design with an ultra-thin profile. High-precision, high-stiffness linear motion in horizontal X/Y axis with 2 degrees of freedom.

Applications

- Semiconductor
- Flat panel display
- Optical fiber alignment
- Biomedicine

Interface Definition



*Interface dimensions from PL90

Technical Specifications

	PL90-100	PL90-200	PL90-300
Travel range	±50 mm	±100 mm	±150 mm
Max. velocity	0.3 m/s	0.5 m/s	0.5 m/s
Max. acceleration	0.4 g	0.4 g	0.4 g
Accuracy	±1.5 μm	±2 μm	±2 μm
Bidirectional repeatability	±0.5 μm		
Straightness	±2 μm	±3 μm	±5 μm
Flatness	±2 μm	±3 μm	±5 μm
Pitch	±15 arcsec	±20 arcsec	±25 arcsec
Roll	±15 arcsec	±20 arcsec	±25 arcsec
Yaw	±15 arcsec	±20 arcsec	±25 arcsec
Orthogonality	20 arcsec	20 arcsec	20 arcsec
Mechanical properties			
Moving mass (without payload)_Upper axis	6 Kg	8.6 Kg	11.5 Kg
Moving mass (without payload)_Lower axis	15 Kg	18 Kg	20 Kg
Max. load	10 Kg	10 Kg	10 Kg
Stage mass	22 Kg	26 Kg	31 Kg
Dimensions	380 mmX380 mmX90 mm	380 mmX380 mmX90 mm	430 mmX430 mmX90 mm
Material	Aviation aluminum, black anodized		

Customization Information

The series is configured with options that can be selected based on the user's actual application. Options include travel, encoder, and more.

Table 1 Travel Options

-100	100mm travel stroke platform with linear motors and limit
-200	200mm travel stroke platform with linear motors and limit
-300	300mm travel stroke platform with linear motors and limit

Table 2 Encoder Options

-S1	Incremental analog optical encoder, 1Vpp
-S2	Incremental digital optical encoder, RS422
-S3	Absolute optical encoder, BISS