

# PL90 Series

## Flat integrated XY stage



### Features

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

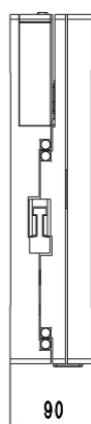
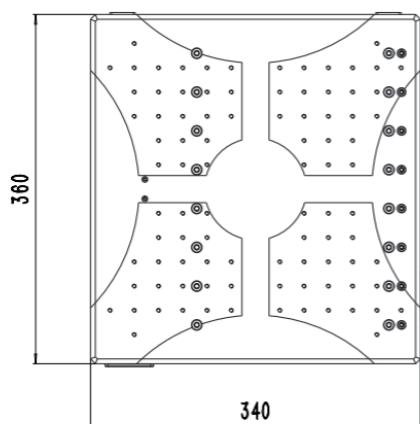
### Description

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	500 mm/s	750 mm/s	1000 mm/s
Max. acceleration	1 g	1 g	1 g
Accuracy	±1.5 μm	±2 μm	±2.5 μm
Bidirectional repeatability	±0.5 μm		
Straightness	±1 μm	±1.5 μm	±2 μm
Flatness	±1 μm	±1.5 μm	±2 μm
Pitch	12 arcsec	15 arcsec	18 arcsec
Roll	12 arcsec	15 arcsec	18 arcsec
Yaw	6 arcsec	8 arcsec	10 arcsec
Orthogonality	20 arcsec	20 arcsec	20 arcsec
<b>Mechanical properties</b>			
Moving mass (without payload)_Upper axis	2.9 Kg	8.6 Kg	16.3 Kg
Moving mass (without payload)_Lower axis	8.4 Kg	16.7 Kg	45 Kg
Max. load	15 Kg	26 Kg	30Kg
Stage mass	11 Kg	25 Kg	54 Kg
Dimensions	250 mmX230 mmX60 mm	360 mmX340 mmX90 mm	410 mmX410 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 linear encoder, 1Vpp
-S2	Incremental digital optical linear encoder, RS422
-S3	Absolute optical linear encoder, BISS