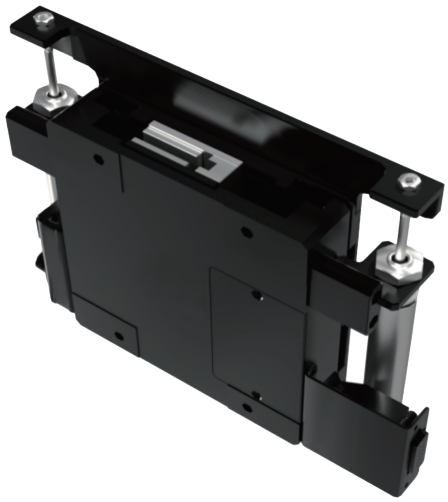
MZA150 Series

Z Stage with Air-floating gravity compensator



Features

- Dual gravity compensation, low profile design
- 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

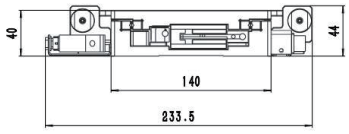
Description

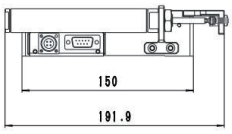
The stage adopts high precision anti-creep cross roller guide. It can achieve vertical high-precision, high stiffness linear motion. It adopts the air- float gravity compensation technology, which has the function of reducing the load of the vertical motor and greatly improving the vertical motion performance and lifetime.

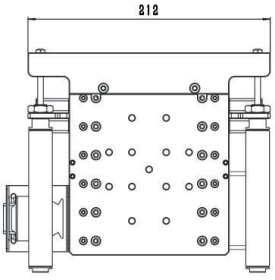
Applications

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

Interface Definition







*Interface dimensions from MZA150 in the middle of vertical stroke

Limotion Systems
라 이 모 션

Technical Specifications

	MZA150-120
Travel range	±60 mm
Max. velocity	200 mm/s
Max. acceleration	1 g (No load)
Accuracy_base	±2.5 μm
Accuracy_plus	±0.275 μm
Bidirectional repeatability_base	±100 nm
Bidirectional repeatability_plus	±75 nm
Position stability (3σ)	2 nm
Straightness	±1.5 μm
Pitch	10 arcsec
Roll	10 arcsec
Yaw	5 arcsec
Mechanical properties	
Moving mass (without payload)	1.5 Kg
Max. load	14 Kg
Stage mass	3 Kg
Dimensions	233.5 mm×191.9 mm×44 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 encoders, high-precision calibration, and more.

Table 1 Encoder Options

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

Table 2 High-precision calibration Options

-PLUS	High-precision calibration: product will be calibrated by platform interferometer at the end of production and before leaving the factory