

Key Features

- Slide 298 x 176 mm (l x w)
- Stroke 300 mm
- Payload up to 20 kg
- Incremental Encoder
- Dynamic Linear Motor up to 2 m/s
- High Repeatability
- Granite Rail



Air Bearing Linear Axis on Granite Rail

Concept and Design

The EZ-4360 linear axis was originally designed for use in measuring machines and for moving optical components.

The almost 300 mm long slide travels on the granite with bearings located far to the outside, allowing the transmission of high tilting moments. The solid granite rail and the ZeroMet™ (Renishaw) scale guarantee good repeatability even with moderate temperature fluctuations.

The slide is designed for payloads of up to 20 kg. Its surface offers plenty of space for customer-specific structures and sensors.

The axis is driven by a linear motor (Tecnotion UL6). Due to the magnetic preload, the axis can also be operated vertically. An incremental measuring system (Renishaw Tonic™) is installed in the standard version. Deviating strokes can be realized on request.

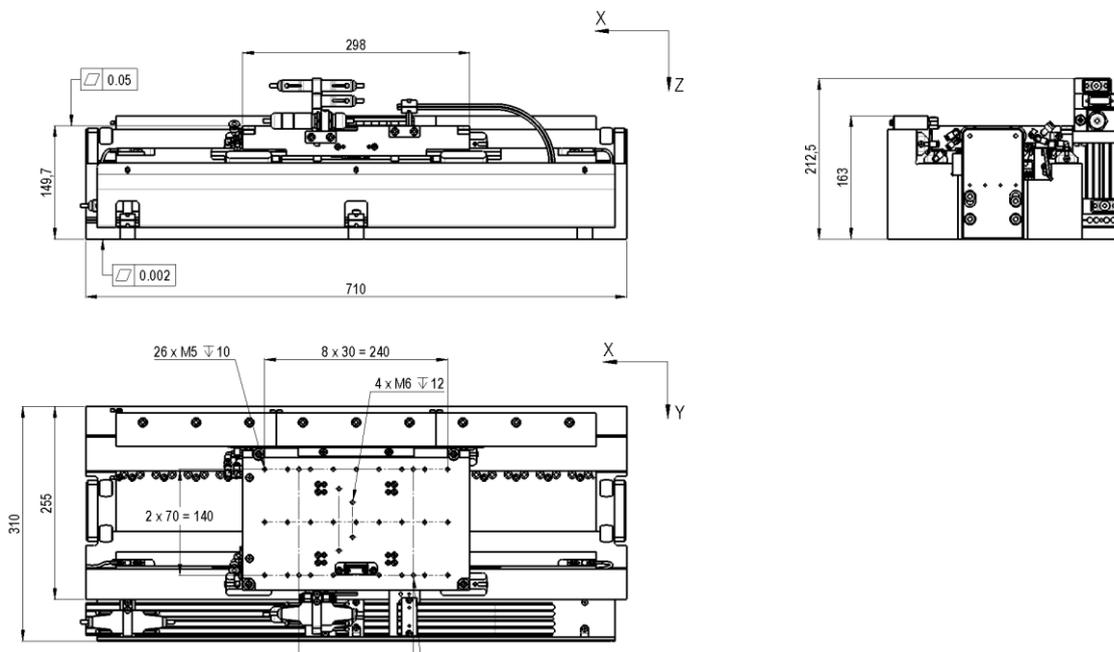
Applications

Electronics manufacturing, PCB manufacturing, inspection technology, non-contact 2D measurement, sensor and camera positioning for inspection, AOI (automatic optical inspection), automation processes. In general: applications with high demands on dynamics, precision, repeatability, smooth scan movements, short settling times.

Drive Control

We offer the linear axis EZ-2352-094 with the following drive controllers:

- Kollmorgen Servostar AKD / S300 / S700
- ACS Controller with UDMpa Drive
- Triamec TSD130



Specifications

Type	Unit	EZ-4360
Stroke	mm	300
Positioning Accuracy (non-compensated) (XTX)	µm	3
Repeatability (bidirectional) ¹⁾	nm	50
Position Stability ¹⁾	nm	30 - 100
Vertical/Horizontal Straightness (XTZ/XTY)	µm	2
Pitch (XRY)	µrad	10
Yaw (XRZ)	µrad	10
Max. Speed unloaded	m/s	2
Max. Acceleration unloaded	m/s ²	10
Mechanical Data		Unit
Dimension LxWxH	mm	710x307x212
Max. Load ²⁾	kg	20
Load Capacity vertical (Z)	N	560
Load Capacity lateral (Y)	N	280
Moment of Tilt around X	Nm	25
Moment of Tilt around Y	Nm	20
Moment of Tilt around Z	Nm	70
Moving Mass (slide)	kg	7.5
Total Mass (incl. slide)	kg	77
Encoder		EZ-4360
Type	incremental, Renishaw Tonic	
Signal	1Vpp, RS422	
Drive		Unit
Type	3-phase, synchronous, ironless	
Max. Voltage ph-ph	V _{AC}	230 (300 V _{DC})
Constant Force	N	110
Peak Force	N	380
Constant Current	A _{rms}	1.6
Peak Current	A _{rms}	5.6
Cable Length (open end)	m	6
Interfaces and Environment		Unit
Air Consumption	Sl/min	5
Supply Pressure	bar	5
MTBF	h	> 20,000
Limit Switch	included (5V)	
Clean Room Suitability	applicable	
Drive Control		EZ-4360
Standard	Kollmorgen Servostar AKD / S300 / S700	
High End	ACS Controller, Triamec	

1) depending on drive control

2) large mass moments of inertia must be taken into account

Subject to technical modifications and typographical errors.