

### **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.

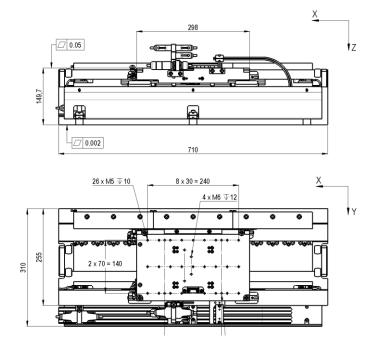
#### **Applications**

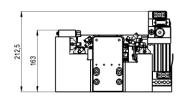
Electronics manufacturing, PCB manufacturing, inspection technology, non-contact 2D measurement, sensor and camera positioning for inspection, AOI (automatic optical inspection), automation processes. In general: applications with high demands on dynamics, precision, repeatability, smooth scan movements,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

Туре	Unit	EZ-4360
Stroke	mm	300
Positioning Accuracy (non-compensated) (XTX)	μm	3
Repeatability (bidirectional) 1)	nm	50
Position Stability <sup>1)</sup>	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 <sup>2</sup>	10
Mechanical Data	Unit	EZ-4360
Dimension LxWxH	mm	710×307×212
Max. Load <sup>2)</sup>	kg	20
Load Capacity vertical (Z)	Ν	560
Load Capacity lateral (Y)	Ν	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
Туре		incremental, Renishaw Tonic
Signal		1Vpp, RS422
Drive	Unit	EZ-4360
Туре		3-phase, synchronous, ironless
Max. Voltage ph-ph	$V_{AC}$	230 (300 V <sub>DC</sub> )
Constant Force	Ν	110
Peak Force	Ν	380
Constant Current	$A_{rms}$	1.6
Peak Current	$A_{rms}$	5.6
Cable Length (open end)	m	6
Interfaces and Environment	Unit	EZ-4360
Air Consumption	SI/min	5
Supply Pressure	bar	5
MTBF	h	> 20,000
Limit Switch		included (5 V)
Clean Room Suitability		applicable
Drive Control		EZ-4360
Dive control		
Standard High End	k	Kollmorgen Servostar AKD / S300 / S70

<sup>1)</sup> depending on drive control

Subject to technical modifications and typographical errors.

<sup>2)</sup> large mass moments of inertia must be taken into account