

Key Features

- Slide 90 x 66 mm (l x w)
- Payload up to 4 kg
- Incremental Measuring System
- Dynamic Linear Motor
- High Positioning Accuracy
- Compact Design



Compact Air-Bearing Linear Axis

Concept and Design

Highly integrated construction and compact design make the axis versatile for high-precision positioning tasks with limited installation space.

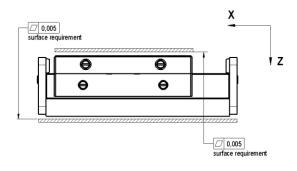
Despite its compactness, the axis offers good load capacities and tilting moments. It can also be installed in upright position or lying on its side.

The linear axis is designed for small to medium-sized strokes with loads up to 30 N.

The hard-coated aluminum slide is dynamically driven by a Tecnotion UC3 motor. Preload is achieved by magnet groups.

The axis is equipped with an incremental measuring system from Heidenhain (LIK 21).

The rail (chrome steel) is available in 2 standard lengths, deviating lengths on request.



Applications

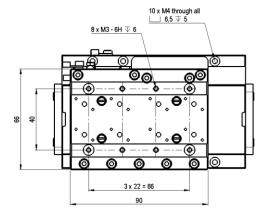
Inspection technology, non-contact 2D measurement, sensor and camera positioning for inspection, electronics and PCB manufacturing, AOI (automatic optical inspection), automation processes.

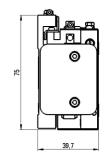
In general: applications with high demands on dynamics, precision, repeatability, smooth scan movements, short settling times.

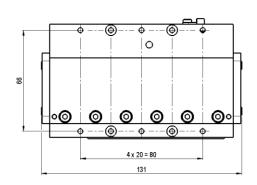
Drive Control

We offer the linear axis EZ-2352-066 with the following drive controllers:

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









Specifications

Туре	Unit	Stroke 20	Stroke 100
Stroke	mm	20	100
Positioning Accuracy uncompensated	μm	2	3
Repeatability (bidirectional) 1)	nm	50	50
Position Stability 1)	nm	30 - 100	30 - 100
Vertical/Horiz. Straightness (XTZ/XTY)	μm	1	3
Pitch (XRY)	μrad	10	25
Yaw (XRZ)	μrad	10	25
Max. Speed unloaded	m/s	2.5	2.5
Max. Acceleration unloaded	m/s ²	50	50

Mechanical Data	Unit	Stroke 20	Stroke 100
Mounting Position		unrestricted	unrestricted
Dimension LxWxH	mm	131x75x39.7	600x75x39.7
Max. Load ²⁾	kg	4	4
Load Capacity vertical (Z) push/pull	Ν	350	350
Load Capacity lateral (Y)	Ν	90	90
Moment of Tilt around Y	Nm	5	5
Moment of Tilt around X	Nm	1.5	1.5
Moment of Tilt around Z	Nm	1.5	1.5
Moving Mass (slide)	kg	0.4	0.4
Total Mass (incl. slide)	kg	1.6	2.4

Encoder	EZ-2352-66-xxx	
Туре	incremental	
Sensor Signal	1Vpp / RS422	

Drive	Unit	EZ-2352-66-xxx	
Туре		synchronous, ironless	
Intermediate Circuit Supply	V_{AC}	3-phase up to 45 (60 V_{DC})	
Continuous Force	Ν	8	
Peak Force	Ν	28	
Constant Current	A_{rms}	0.7	
Peak Current	A_{rms}	2.5	
Cable Length	m	1	

Interfaces and Environment	Unit	EZ-2352-66-xxx
Air Consumption	SI/min	9
Supply Pressure	bar	5
MTBF	h	> 20,000
Limit Switch		without
Clean Room Suitability		applicable

Drive Control	EZ-2352-66-xxx
Standard	Kollmorgen Servostar AKD / S300 / S700
High End	ACS Controller; Triamec

¹⁾ depending on drive control

Subject to technical modifications and typographical errors.

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