

Key Features

- Slide 150 x 99 mm (l x w)
- Payload up to 15 kg
- Absolute Measuring System
- Dynamic Linear Motor
- High Positioning Accuracy
- Compact Design
- Stackable



Air Bearing Linear Axis

Concept and Design

Compact design, high load capacity and very high positioning accuracy are the outstanding features of the linear axis EZ-2352-094.

The air bearing axis is designed for small to medium strokes with loads up to 150 N. The slide made of hard-coated aluminum is dynamically driven by an ironless synchronous motor (Tecnotion UM6). The preload is achieved by magnet assemblies. In the standard version, the axis is equipped with an absolute measuring system from Heidenhain (LIC411).

The chrome steel rail is available in 3 standard lengths, different lengths on request. For the realization of simple cross tables, two axes can be stacked on top of each other.

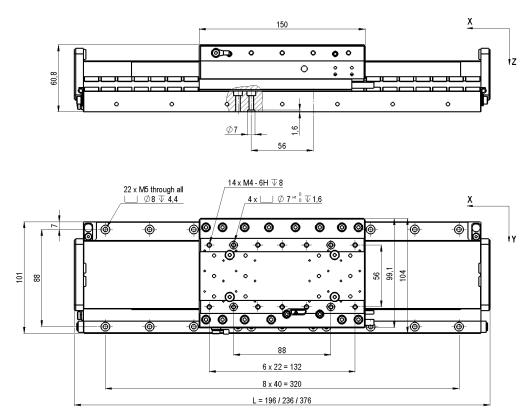
Applications

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	Stroke 20	Stroke 60	Stroke 200
Stroke	mm	20	60	200
Positioning Accuracy	μm	2	2	3
Repeatability (bidirectional) 1)	nm	50	50	50
Position Stability 1)	nm	30-100	30 - 100	30 - 100
Vertical/Horiz. Straightness (XTZ/XTY)	μm	1	2	3
Pitch (XRY)	μrad	5	10	25
Yaw (XRZ)	μrad	5	10	25
Max. Speed unloaded	m/s	2	2	2
Max. Acceleration unloaded	m/s ²	20	20	20

Mechanical Data	Unit	Stroke 20	Stroke 60	Stroke 200
Mounting Position		unrestricted	unrestricted	unrestricted
Dimension LxWxH	mm	196 x 104 x 60,3	236 x 104 x 60,3	376 x 104 x 60,8
Max. Load ²⁾	kg	15	15	15
Load Capacity vertical (Z) push/pull	Ν	1,200/800	1,200/800	1,200/800
Load Capacity lateral (Y)	Ν	170	170	170
Moment of Tilt around Y	Nm	22	22	20
Moment of Tilt around X	Nm	7	7	6
Moment of Tilt around Z	Nm	5	5	5
Moving Mass (slide)	kg	1.3	1.3	1.3
Total Mass (incl. slide)	kg	5	7	10

Encoder	EZ-2352-94-xxx
Туре	absolute
Signal	EnDat2.2

Drive	Unit	EZ-2352-94-xxx
Туре		synchronous, ironless
Intermediate Circuit Supply	V_{AC}	3-phase up to 45 (60 V_{DC})
Continuous Force	N	45
Peak Force	N	160
Constant Current	A_{rms}	1.2
Peak Current	A_{rms}	8
Cable Length	m	1

Interfaces and Environment	Unit	EZ-2352-94-xxx
Air Consumption	SI/min	12
Supply Pressure	bar	5
MTBF	h	> 20,000
Limit Switch		optional ³⁾
Clean Room Suitability		applicable

Drive Control	EZ-2352-94-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

³⁾ type: Baumer IFFM 08P37A6/L (PNP normally closed)