

Key Features

- Linear Axis for Vertical Installation
- Slide 150 x 99 mm (l x w)
- Air Bearing Weight Compensation
- Absolute Measuring System
- Dynamic Linear Motor
- High Positioning Accuracy
- Compact Design
- Stackable



Air Bearing Linear Axis for Vertical Installation

Concept and Design

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

The air bearing axis is designed for small to medium strokes with loads up to 100 N. A pneumatic, air-bearing cylinder serves as a static counterweight.

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 (LIC4).

The linear axis is available with strokes of 20/40/60 mm, other lengths are possible on request, as well as a configuration with laterally arranged counterweight cylinders.

For the realization of simple cross tables, two axes can be stacked on top of each other.

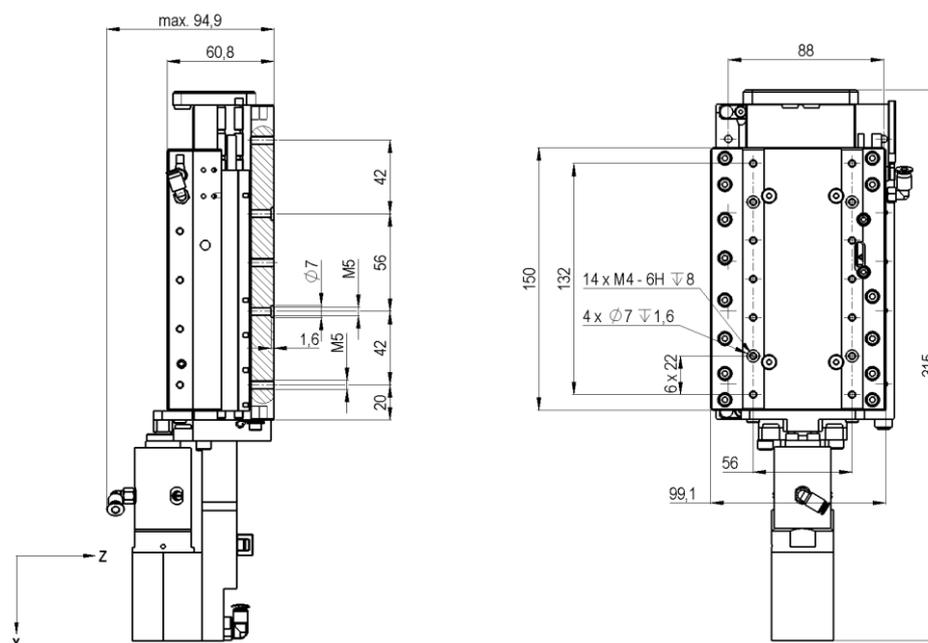
Applications

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-2352-094V with the following drive controllers:

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



Specifications

Type	Unit	Stroke 20	Stroke 40	Stroke 60
Article No.		0036023	0030553	0031032
Stroke	mm	20	40	60
Positioning Accuracy uncompensated	µm	2	2	3
Repeatability (bidirectional) ¹⁾	nm	100	100	100
Position Stability ¹⁾	nm	30-100	30-100	30-100
Vertical/Horizontal Straightness	µm	2	2	2
Pitch	µrad	5	10	15
Yaw	µrad	5	10	15
Max. Speed unloaded	m/s	2	2	2
Max. Acceleration unloaded	m/s ²	20	20	20

Mechanical Data	Unit	Stroke 20	Stroke 40	Stroke 60
Mounting Position		vertical	vertical	vertical
Dimension LxWxH	mm	315x114.5x95	355x106.5x80.5	395x112x80.5
Max. Load	kg	10	10	10
Moment of Tilt around Y	Nm	10	10	10
Moment of Tilt around X	Nm	5	5	5
Moment of Tilt around Z	Nm	3.5	3.5	3.5
Moving Mass (slide)	kg	1.5	1.5	1.5
Total Mass	kg	6	7	8

Encoder	EZ-2352-xxx
Type ²⁾	absolute
Signal	EnDat 2.2

Drive	Unit	EZ-2352-xxx
Type		synchronous, ironless
Max. Voltage ph-ph	V _{AC}	3-phase up to 45 (60 V _{DC})
Constant 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-xxx
Air Consumption	Sl/min	~ 12
Supply Pressure	bar	5
MTBF	h	> 20,000
Limit Switch		optional
Clean Room Suitability ²⁾		applicable

Drive Control	EZ-2352-xxx
Standard	Kollmorgen Servostar AKD / S300 / S700
High end	ACS Controller, Triamec

1) depending on drive control

2) depending on detail design

Subject to technical modifications and typographical errors