

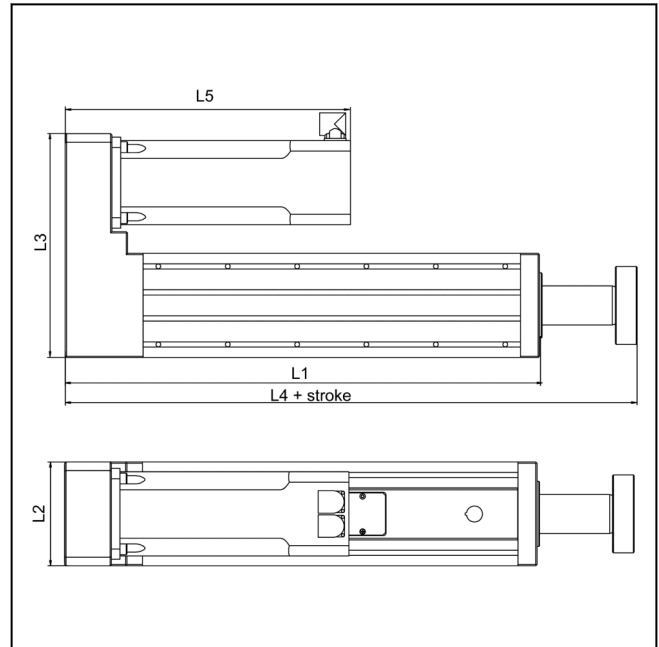
## Product Information

### Electro-mechanical testing actuator EZ050

CTA: 76179 76180



Electro-mechanical testing actuator



Drawing of electro-mechanical testing actuator

#### Range of application

Multi-purpose testing axis for tensile and compression applications. For variable integration in test stands, production lines or customized constructions. Dedicated for force/travel measurements with high demands on resolution, accuracy and speed.

Typical application areas:

- Testing of materials, assemblies, components and complete end products
- Manufacturing processes with measurement performance (e.g. automatic assembly, mounting)
- Cyclic tests with large strokes

#### Advantages and features

Flexible usage:

- Variable mounting via front or rear flange or via trunion mount
- measurement and control electronics testControl II in separate casing and therewith optional positionable (Optional in IP54 casing)
- Flexible programming of test sequences due to versatile interfaces
- Ideally usage for clean room areas

High performance:

- Speeds up to 30 m/min
- High resolution measurement and control electronics *testControl II* for precise data acquisition with up to 2000 Hz
- Closed loop control of force and travel with smooth switching between those modes

Integration in production lines:

- Optional plug-in card provides freely definable digital inputs and outputs
- Easy integration of additional measurement devices (e.g. digital multi-meters)
- Optional operation via remote interface

Large variety of standard modules:

- Easy mounting of ZwickRoell load cells and tooling
- Operation via standard PC and testXpert III software
- Proven digital drive technology controlled by Zwick-Roell standard electronics

Easy to install and maintain:

- Installation possible without additional infrastructure (like e.g. hydraulic pumps or pneumatic connections)
- Low maintenance costs and long lifetime

## Product Information

### Electro-mechanical testing actuator EZ050

Model range III	EZ050	
Item No.	1023383	
<b>Electro-mechanical testing actuator EZ050</b>		
Fmax (tensile / compression)	50	kN
Test speed, max.	3000	mm/min
Test speed, max.	50	mm/s
Position resolution	5.35	nm
Repeatability of position	±8	µm
Permissible transverse force at maximum stroke	2000	N
Dimensions		
Height with stroke	1475	mm
Width	430	mm
Depth	200	mm
Stroke	400	mm
Piston diameter	100	mm
Weight		
Single testing actuator	136	kg
Machine electronics	36	kg
L1 - length	682	mm
L2 - width	200	mm
L3 - depth	430	mm
L4 - length including piston	873	mm
L5 - length including motor	550	mm
Overall weight (approx.)	136	kg
Piston stroke, max.		
- standard	200	mm
- option	400	mm
Mounting		
On the head and foot flanges	4 x M16	mm
On the piston rod	4 x M16	mm
Paint		
Aluminum black	Anodized	
Aluminum natural	Anodized	
Red RAL	3031	
Average noise level	<73	dB(A)
Speed	0.001 ... 3000	mm/min
Deviation from the set drive speed, max.	0.01 % of	v <sub>act</sub>
Drive system's travel resolution	0.00107	µm
Position repetition accuracy without reversal of direction		
at 0.5 m/min	+/-1	µm
at 7 m/min	+/-8	µm
Front and back and positions	Automatic shut down via limit switches	
Air humidity	20 ... 90	%
Ambient temperature	+10 ... +35	°C

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### Electro-mechanical testing actuator EZ050

<b>Model range III</b>	<b>EZ050</b>	
<b>Item No.</b>	<b>1023383</b>	
<b>Measurement and control electronics testControl II</b>		
Measurement range	≤ 165	%
Acquisition rate, internal	400	kHz
Transmission rate to PC, adjustable	500 (optional 2000)	Hz
Electrical connections	400	V, 3 Ph/N/PE
Power consumption, max.	6000	VA
Power frequency	50/60	Hz
<b>Item No.</b>		
Piston stroke standard (200 mm)	<b>1023382</b>	
Piston stroke option (400 mm)	<b>1023383</b>	

### Optional accessories

<b>Description</b>	<b>Item number</b>
Load frame	<b>088487</b>
IP54 casing	<b>1026595</b>
Remote control	<b>1025096</b>
Safeguard	<b>1027010</b>
Trunnion mounting	<b>001560</b>