

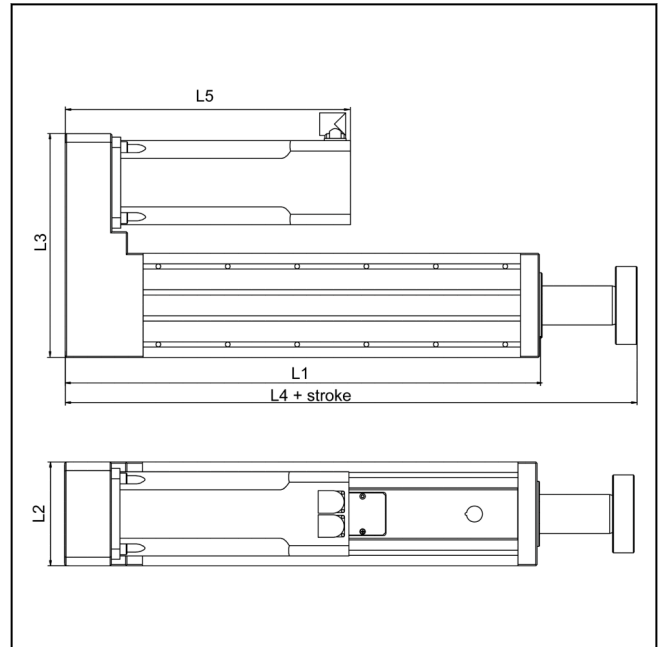
Product Information

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

Series III	EZ050	
Electro-mechanical testing actuator EZ050		
Fmax (tensile / compression)	50	kN
Test speed, max.	3000	mm/min
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 _{act}
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
Measurement and control electronics testControl II		
Measurement range	≤ 165	%

Product Information

Electro-mechanical testing actuator EZ050

Series III	EZ050	
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
Item No.		
Piston stroke standard (200 mm)	1023382	
Piston stroke option (400 mm)	1023383	

Optional accessories

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