

Product Information

Electro-mechanical testing actuator EZ001 / EZ002 / EZ005



Figure: Electro-mechanical testing actuator small type

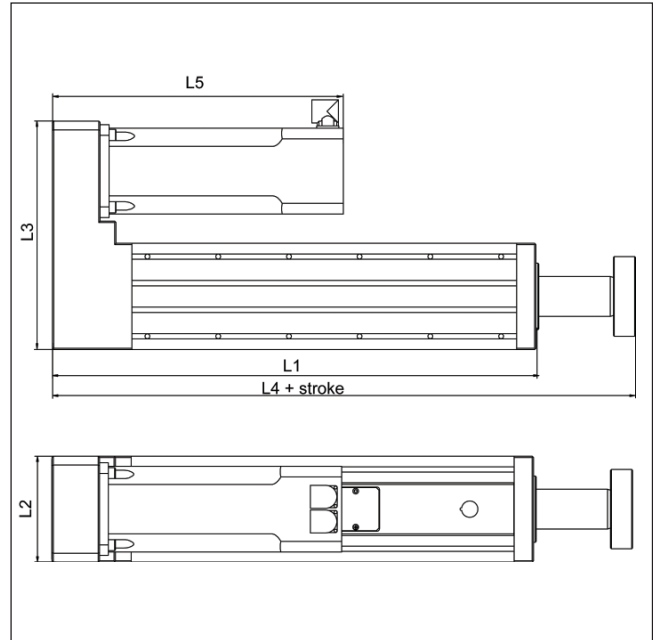


Figure: Drawing of electro-mechanical testing actuator small type

Application range

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* in separate free positioning rack resulting in free positioning (rack optional in IP54 design)
- 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* for precise data acquisition with up to 500 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 Zwick load cells and tooling
- Operation via standard PC and *testXpert*[®] software
- Proven digital drive technology controlled by Zwick 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

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Small type	EZ001	EZ001	EZ002	EZ002	EZ005
Electro-mechanical testing actuator					
Fmax (tensile/compression) [kN]	1	1	2	2	5
Max. test speed [mm/min]	7500	30000	7500	15000	5000
Max. test speed [mm/s]	125	500	125	250	83
Position resolution [μ m]	0.10	0.81	0.10	0.40	0.14
Repeatability of position [μ m]	$\pm 2,5$	± 6	$\pm 2,5$	± 6	$\pm 2,5$
L1 – length [mm]	547	547	547	547	547
L2 – width [mm]	120	120	120	120	120
L3 – depth [mm]	270	282	270	282	282
L4 – length including piston [mm]	660	670	660	660	660
L5 – length including motor [mm]	275	329	275	329	329
Overall weight (approx.) [kg]	22	26	22	26	26
Maximal piston stroke					
standard [mm]	200	180	200	200	200
option [mm]	400	380	400	400	400
Ambient temperature [$^{\circ}$ C]	+10 ... +35	+10 ... +35	+10 ... +35	+10 ... +35	+10 ... +35
Air humidity [%]	20 – 90	20 – 90	20 – 90	20 – 90	20 – 90
Measurement and control electronics testControl					
Measurement range [from Fmax]	$\leq 165\%$	$\leq 165\%$	$\leq 165\%$	$\leq 165\%$	$\leq 165\%$
Acquisition rate, internal [<Hz]	500	500	500	500	500
Transmission rate to PC, [Hz]	100	100	100	100	100
adjustable (option)	500	500	500	500	500
Electrical connections 1 Ph/N/PE [V]	120 / 230	120 / 230	120 / 230	120 / 230	120 / 230
Max. power consumption [VA]	2300	2300	2300	2300	2300
Mains frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Item no.					
Piston stroke standard	• 639782	• 639786	• 639785	• 639789	• 639790
Piston stroke option ¹	• 639783	• 639787	• 639784	• 639788	• 639791
	(BX1-EZ001.A50)	(BX1-EZ001.A1K)	(BX1-EZ002.A50)	(BX1-EZ002.A1K)	(BX1-EZ005.A1K)

¹ with optional piston stroke the values of the length and weight are changed

Required accessories

Item	Fmax [kN]	Item no.
Load cell	1	• 637918 (BXC-LC001KN.G02-001)
Load cell	2	• 637919 (BXC-LC2.5KN.G02-001)
Load cell	5	• 637920 (BXC-LC005KN.G02-002)

Optional accessories

Item	Item no.
Trunnion mount	• 636380 (BXC-FR005kN.EZ-002)
Load frame	• 636311 (BXC-FR005KN.EZ-001)
P54 casing	• 639792 (BXC-OPIP54-001)
Remote control	• 639773 (BXC-OPRCSTD-001)