

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 1 m²
- Torque motor 5 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close, 3-point
- with integrated auxiliary switch



Technical data

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Nominal voltage	AC/DC 24 V
Nominal voltage frequency	50/60 Hz
Nominal voltage range	AC 19.228.8 V / DC 19.228.8 V
Power consumption in operation	1 W
Power consumption in rest position	0.2 W
Power consumption for wire sizing	1.5 VA
Auxiliary switch	1 x SPDT, 0100%
Switching capacity auxiliary switch	1 mA3 A (0.5 A inductive), DC 5 VAC 250 V
Connection supply / control	Cable 1 m, 3 x 0.75 mm ²
Connection auxiliary switch	Cable 1 m, 3 x 0.75 mm ²
Parallel operation	Yes (note the performance data)

Functional data

Torque motor	5 Nm
Direction of motion motor	selectable with switch 0 (ccw rotation) / 1 (cw rotation)
Manual override	with push-button, can be locked
Angle of rotation	Max. 95°
Angle of rotation note	can be limited on both sides with adjustable mechanical end stops
Running time motor	150 s / 90°
Sound power level, motor	35 dB(A)
Mechanical interface	Universal shaft clamp 620 mm
Position indication	Mechanical, pluggable
Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)

Safety data

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Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)
Power source UL	Class 2 Supply
Protection class auxiliary switch IEC/EN	II, reinforced insulation
Degree of protection IEC/EN	IP54
Degree of protection NEMA/UL	NEMA 2
Enclosure	UL Enclosure Type 2
EMC	CE according to 2014/30/EU
Low voltage directive	CE according to 2014/35/EU
Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14
UL Approval	cULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1
	The UL marking on the actuator depends on
	the production site, the device is UL-compliant
	in any case
Type of action	Type 1.B
Rated impulse voltage supply / control	0.8 kV
Rated impulse voltage auxiliary switch	2.5 kV
Pollution degree	3



	Technical data sheet		LM24A-S
Safety data	Ambient humidity	Max. 95% RH, non-condensing	
	Ambient temperature	-3050°C [-22122°F]	
	Storage temperature	-4080°C [-40176°F]	

maintenance-free

Weight Weight 0.54 kg

Safety notes



Servicing

- This device has been designed for use in stationary heating, ventilation and air-conditioning
 systems and must not be used outside the specified field of application, especially in aircraft or
 in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or
 aggressive gases interfere directly with the device and that it is ensured that the ambient
 conditions remain within the thresholds according to the data sheet at any time.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- · Cables must not be removed from the device.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation situation and the ventilation conditions must be observed.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

Simple direct mounting Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an anti-

rotation device to prevent the actuator from rotating.

Manual override Manual override with push-button possible (the gear train is disengaged for as long as the

button is pressed or remains locked).

Adjustable angle of rotation Adjustable angle of rotation with mechanical end stops.

High functional reliability The actuator is overload protected, requires no limit switches and automatically stops when the

end stop is reached.

Flexible signalling With adjustable auxiliary switch (0...100%)

Accessories

Electrical accessories	Description	Туре
	Auxiliary switch 1 x SPDT add-on	S1A
	Auxiliary switch 2 x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on	P140A
	Feedback potentiometer 200 Ω add-on	P200A
	Feedback potentiometer 500 Ω add-on	P500A
	Feedback potentiometer 1 kΩ add-on	P1000A
	Feedback potentiometer 2.8 kΩ add-on	P2800A
	Feedback potentiometer 5 kΩ add-on	P5000A
	Feedback potentiometer 10 kΩ add-on	P10000A



Technical data sheet LM24A-S

Mechanical accessories

Description	Туре
Shaft extension 170 mm Ø10 mm for damper shaft Ø 616 mm	AV6-20
Shaft clamp one-sided, clamping range Ø620 mm, Multipack 20 pcs.	K-ELA
Shaft clamp one-sided, clamping range Ø610 mm, Multipack 20 pcs.	K-ELA10
Shaft clamp one-sided, clamping range Ø613 mm, Multipack 20 pcs.	K-ELA13
Shaft clamp one-sided, clamping range Ø616 mm, Multipack 20 pcs.	K-ELA16
Anti-rotation mechanism 180 mm, Multipack 20 pcs.	Z-ARS180
Form fit insert 8x8 mm, Multipack 20 pcs.	ZF8-LMA
Form fit insert 10x10 mm, Multipack 20 pcs.	ZF10-LMA
Form fit insert 12x12 mm, Multipack 20 pcs.	ZF12-LMA
Form fit insert 8x8 mm, with angle of rotation limiter and position indication, Multipack 20 pcs.	ZFRL8-LMA
Form fit insert 10x10 mm, with angle of rotation limiter and position indication, Multipack 20 pcs.	ZFRL10-LMA
Form fit insert 12x12 mm, with angle of rotation limiter and position indication, Multipack 20 pcs.	ZFRL12-LMA
Position indicator, Multipack 20 pcs.	Z-PI

Electrical installation



Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data.

Wire colours:

1 = black

2 = red

3 = white

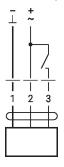
S1 = white

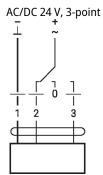
S2 = white

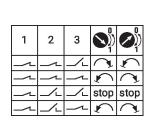
S3 = white

Wiring diagrams

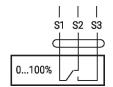
AC/DC 24 V, open/close





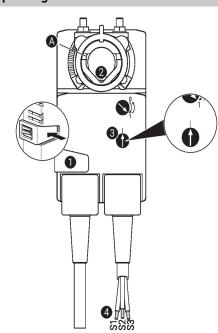


Auxiliary switch





Operating controls and indicators



Auxiliary switch settings

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Note: Perform settings on the actuator only in deenergised state.

For the auxiliary switch position settings, carry out points 1 to 4 successively.

Manual override button

Holding button pressed down: Gear train disengages. Manual override is possible.

2 Shaft clamp

Turn until edge line (A) displays the desired switching position of the actuator and release button (1).

3 Auxiliary switch

Turn rotary knob until the arrow points to the vertical line.

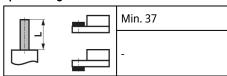
4 Cable

Connect continuity tester to S1 + S2 or to S1 + S3.

If the auxiliary switch should switch in the opposite direction, rotate the auxiliary switch by 180°.

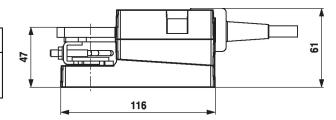
Dimensions

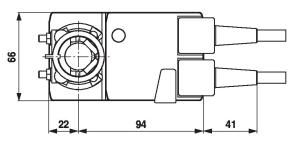
Spindle length



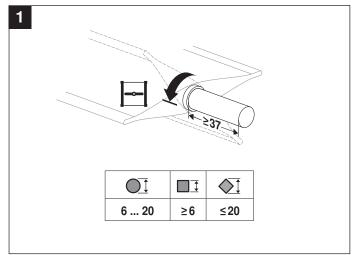
Clamping range

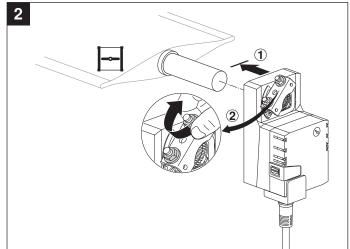
OĮ.	1	♦ I
620	≥6	≤20

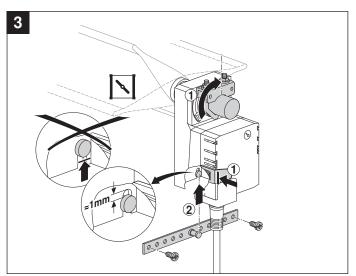


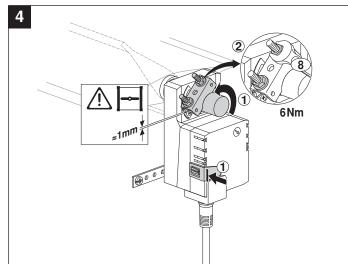


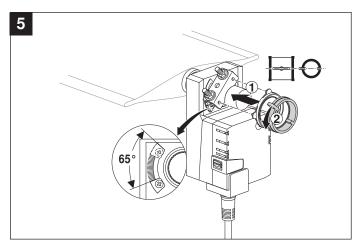


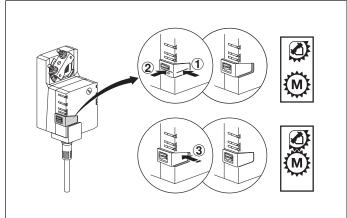






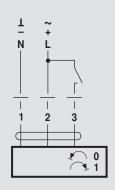


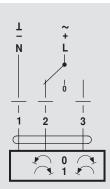








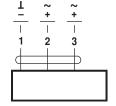


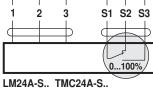


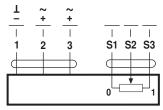


AC 24 V / DC 24 V

DC 48 ... 110 V (LM72A..)





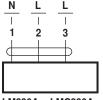


LM24A.. LMC24A.. LM72A.. TMC24A..

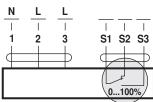
LM24A-S.. TMC24A-LM72A-S..

LM24AP5..

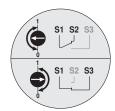
AC 100 ... 240 V





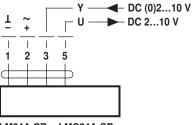


LM230A-S.. TMC230A-S..

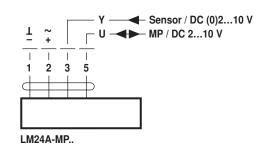




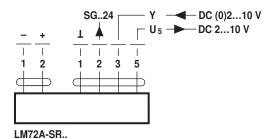
AC 24 V / DC 24 V



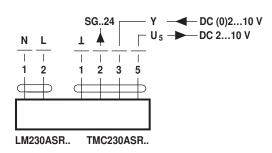
LM24A-SR.. LMC24A-SR.. LM24A-MF.. TMC24A-SR..

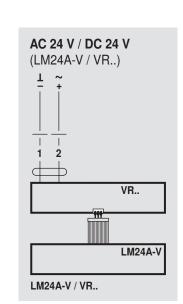






AC 100 ... 240 V 🥂





SALES CONTACT



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