

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 4 m<sup>2</sup>
- Torque motor 20 Nm
- Nominal voltage AC 100...240 V
- Control Open/close, 3-point
- with connecting terminals
- PWIS/LABS-compliant according to VDMA 24364



## Technical data

<b>Electrical data</b>	Nominal voltage	AC 100...240 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 85...265 V
	Power consumption in operation	2.5 W
	Power consumption in rest position	0.6 W
	Power consumption for wire sizing	6 VA
	Connection supply / control	Terminals 4 mm <sup>2</sup> (cable ø4...10 mm, 3-wire)
	Parallel operation	Yes (note the performance data)
<b>Functional data</b>	Torque motor	20 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	45 dB(A)
	Mechanical interface	Universal shaft clamp reversible 10...20 mm
	Position indication	Mechanical, pluggable
<b>Safety data</b>	Protection class IEC/EN	II, reinforced insulation
	Protection class UL	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
	PWIS/LABS-conformity	According to VDMA 24364 (test class C1) Approved for use in zone II Cleaning with low-pressure plasma treatment

**Technical data**

<b>Safety data</b>	Hygiene test	According to VDI 6022 Part 1 / SWKI VA 104-01, cleanable and disinfectable, low emission
	Type of action	Type 1
	Rated impulse voltage supply / control	2.5 kV
	Pollution degree	3
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-30...50°C [-22...122°F]
	Storage temperature	-10...40°C [14...104°F]
	Servicing	maintenance-free
<b>Weight</b>	Weight	0.89 kg

**Safety notes**


- 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.
- Caution: Power supply voltage!
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with 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.
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section and the design, as well as 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.
- PWIS/LABS-conformity is guaranteed as long as the packaging is unopened. Once the PWIS/LABS-compliant packaging has been opened, the proper handling of the products is the responsibility of the customer. PWIS/LABS-conformity of unopened products is guaranteed for a period of one year after cleaning, provided they are handled properly, professionally and cleanly. Proof of proper, professional and clean handling is the responsibility of the purchaser. Ensure that the required cleanliness of the products is maintained. Do not touch the products with bare hands. Belimo accepts no liability for the consequences resulting from the contamination of a product caused by the customer.

**Product features**

<b>Simple direct mounting</b>	Simple direct mounting on the damper shaft with a universal shaft clamp, supplied with an anti-rotation device to prevent the actuator from rotating.
<b>Manual override</b>	Manual override with push-button possible (the gear train is disengaged for as long as the button is pressed or remains locked).
<b>Adjustable angle of rotation</b>	Adjustable angle of rotation with mechanical end stops.

**Accessories**

Electrical accessories	Description	Type
	Auxiliary switch 1x SPDT add-on	S1A
	Auxiliary switch 2x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on	P140A

Accessories

	Description	Type
Mechanical accessories	Feedback potentiometer 1 kΩ add-on	P1000A
	Feedback potentiometer 10 kΩ add-on	P10000A
	Description	Type
	Actuator arm for standard shaft clamp (reversible)	AH-20
	Shaft extension 240 mm ø20 mm for damper shaft ø12...21 mm CrNi	AV12-25-I
	Shaft extension 240 mm ø20 mm for damper shaft ø8...22.7 mm	AV8-25
	Ball joint suitable for damper crank arm KH8	KG8
	Ball joint suitable for damper crank arm KH8 / KH10	KG10A
	Damper crank arm Slot width 8.2 mm, clamping range ø10...18 mm	KH8
	Shaft clamp one-sided, clamping range ø8...26 mm, Multipack 20 pcs.	K-ENSA
Shaft clamp one-sided, clamping range ø12...26 mm, for CrNi shaft (INOX), Multipack 20 pcs.	K-ENSA-I	
Shaft clamp reversible, clamping range ø10...20 mm	K-SA	
Anti-rotation mechanism 180 mm, Multipack 20 pcs.	Z-ARS180	
Anti-rotation mechanism 230 mm, Multipack 20 pcs.	Z-ARS230	
Form fit insert 10x10 mm, Multipack 20 pcs.	ZF10-NSA	
Form fit insert 12x12 mm, Multipack 20 pcs.	ZF12-NSA	
Form fit insert 15x15 mm, Multipack 20 pcs.	ZF15-NSA	
Form fit insert 16x16 mm, Multipack 20 pcs.	ZF16-NSA	
Mounting kit for linkage operation for flat installation	ZG-SMA	
Position indicator, Multipack 20 pcs.	Z-PI	
Baseplate extension for SM..A to SM../AM../SMD24R	Z-SMA	
Terminal protection IP54, Multipack 20 pcs.	Z-TP	

Electrical installation

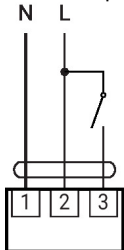


Caution: Power supply voltage!

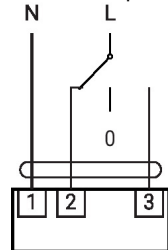
Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC 230 V, open/close



AC 230 V, 3-point



1	2	3	0/1	0/1
			stop	stop

## Dimensions

## Spindle length

	Min. 48
	Min. 20 mm [0.75"]

## Clamping range

	10...20	$\geq 10$	$\leq 20$
<b>CrNi (INOX)</b>	12...20	$\geq 10$	$\leq 20$

When using a round shaft made of CrNi (INOX):  $\varnothing 12...20$  mm

