

Damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 4 m²
- Torque motor 20 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close, 3-point
- with connecting terminals
- PWIS/LABS-compliant according to VDMA 24364



Technical data

| | | |
|------------------------|------------------------------------|---|
| Electrical data | Nominal voltage | AC/DC 24 V |
| | Nominal voltage frequency | 50/60 Hz |
| | Nominal voltage range | AC 19.2...28.8 V / DC 19.2...28.8 V |
| | Power consumption in operation | 2 W |
| | Power consumption in rest position | 0.2 W |
| | Power consumption for wire sizing | 4 VA |
| | Connection supply / control | Terminals 4 mm ² (cable ø4...10 mm, 3-wire) |
| | Parallel operation | Yes (note the performance data) |
| Functional data | 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 |
| Safety data | Protection class IEC/EN | III, Safety Extra-Low Voltage (SELV) |
| | Power source UL | Class 2 Supply |
| | 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 |
| | 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 |
| | Hygiene test | According to VDI 6022 Part 1 / SWKI VA 104-01, cleanable and disinfected, low emission |

Technical data

| | | |
|--------------------|--|-----------------------------|
| Safety data | Type of action | Type 1 |
| | Rated impulse voltage supply / control | 0.8 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 |
| Weight | Weight | 0.81 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.
- 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

| | |
|-------------------------------------|---|
| 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. |

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 |
| | Feedback potentiometer 1 kΩ add-on | P1000A |
| | Feedback potentiometer 10 kΩ add-on | P10000A |
| Mechanical accessories | Description | Type |
| | Actuator arm for standard shaft clamp (reversible) | AH-20 |

Accessories

| Description | Type |
|--|-----------|
| Shaft extension 240 mm \varnothing 20 mm for damper shaft \varnothing 12...21 mm CrNi | AV12-25-I |
| Shaft extension 240 mm \varnothing 20 mm for damper shaft \varnothing 8...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 \varnothing 10...18 mm | KH8 |
| Shaft clamp one-sided, clamping range \varnothing 8...26 mm, Multipack 20 pcs. | K-ENSA |
| Shaft clamp one-sided, clamping range \varnothing 12...26 mm, for CrNi shaft (INOX), Multipack 20 pcs. | K-ENSA-I |
| Shaft clamp reversible, clamping range \varnothing 10...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

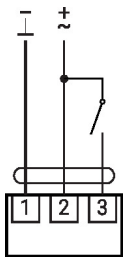


Supply from isolating transformer.

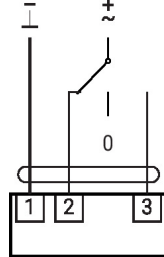
Parallel connection of other actuators possible. Observe the performance data.

Wiring diagrams

AC/DC 24 V, open/close



AC/DC 24 V, 3-point



| 1 | 2 | 3 | | |
|---|---|---|------|------|
| | | | | |
| | | | | |
| | | | stop | stop |
| | | | | |

Dimensions

Spindle length

| | |
|--|--------------------|
| | Min. 48 |
| | Min. 20 mm [0.75"] |

Clamping range

| | | | |
|--------------------|---------|-----------|-----------|
| | | | |
| | 10...20 | ≥ 10 | ≤ 20 |
| CrNi (INOX) | 12...20 | ≥ 10 | ≤ 20 |

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

