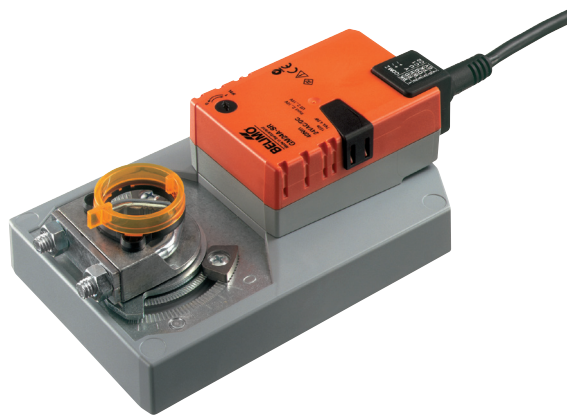


Modulating damper actuator for adjusting dampers in technical building installations

- Air damper size up to approx. 8 m<sup>2</sup>
- Nominal torque 40 Nm
- Nominal voltage AC/DC 24 V
- Control modulating DC 0 ... 10 V
- Position feedback DC 2...10 V


**Technical data**

|                           |  |   |
|---------------------------|--|---|
| <b>Electrical data</b>    | 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             | 4.5 W   |
|                           | Power consumption at rest                  | 2 W   |
|                           | Power consumption for wire sizing          | 6.5 VA  |
|                           | Sensor element                             | Cable 1 m, 4 x 0.75 mm <sup>2</sup>   |
| <b>Functional data</b>    | Torque motor                               | min. 40 Nm  |
|                           | Control positioning signal Y               | DC 0...10 V   |
|                           | Control positioning signal Y note          | Typical input impedance 100 kΩ  |
|                           | Control operating range                    | DC 2...10 V   |
|                           | Position feedback (measuring voltage U)    | DC 2...10 V   |
|                           | Position feedback measuring voltage U note | Max. 1 mA   |
|                           | Position accuracy                          | ±5%   |
|                           | Direction of rotation motor                | Can be selected with switch 0/1   |
|                           | Running direction                          | Y = 0 V: At switch position 0 (counter-clockwise rotation) / 1 (clockwise rotation) |
|                           | Manual override                            | Gear disengagement with push-button, can be locked                                  |
|                           | Angle of rotation                          | max. 95°  |
|                           | Running time motor                         | 150 s / 90°   |
|                           | Sound power level motor max.               | 45 dB(A)  |
|                           | Spindle driver                             | Universal spindle clamp reversible 12...26 mm                                       |
| Position indication       | Mechanical, pluggable                      |   |
| <b>Safety</b>             | Protection class IEC/EN                    | III Safety extra-low voltage  |
|                           | Protection class UL                        | UL Class 2 Supply   |
|                           | Degree of protection IEC/EN                | IP54 in all mounting positions  |
|                           | Degree of protection NEMA/UL               | NEMA 2, UL Enclosure Type 2   |
|                           | Electromagnetic compatibility              | CE according to 89/336/EC   |
|                           | Certification IEC/EN                       | Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14                                   |
|                           | Certification UL                           | cULus according to UL 60730-1A, UL 60730-2-14 and CAN/CSA E60730-1:02               |
|                           | Mode of operation                          | Type 1  |
|                           | Rated current voltage motor                | 0.8 kV  |
|                           | Control pollution degree                   | 3   |
| Ambient temperature       | -30...50 °C                                |   |
| Non-operating temperature | -40...80 °C                                |   |
| Ambient humidity          | 95% r.h., non-condensing                   |   |
| Maintenance               | Maintenance-free                           |   |
| <b>Weight</b>             | Weight approx.                             | 1.7 kg  |

**Safety notes**


- The actuator is not allowed to be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.

## Safety notes

- 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.
- The cables must not be removed from the device.
- When calculating the torque required, the specifications supplied by the damper manufacturers (cross-section, construction, place of installation), and the ventilation conditions must be observed.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

## Product features

|                                     |   |
|-------------------------------------|---|
| <b>Mode of operation</b>            | The actuator is connected with a standard modulating signal of DC 0 ... 10V and travels to the position defined by the positioning signal. Measuring voltage U serves for the electrical display of the damper position 0 ... 100% and as slave control signal for other actuators. |
| <b>Direct mounting</b>              | Simple direct mounting on the damper spindle with a universal spindle clamp, supplied with a universal mounting bracket to prevent the actuator from rotating.  |
| <b>Manual override</b>              | Manual override with push-button possible (the gear is disengaged for as long as the button is pressed or remains locked).  |
| <b>High functional reliability</b>  | The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.  |
| <b>Adjustable angle of rotation</b> | Adjustable angle of rotation with mechanical end stops.   |

## Accessories

|   | Description   | Type     |
|---|---|----------|
| <b>Electrical accessories</b>   | Auxiliary switch, add-on, 1 x SPDT  | S1A      |
|   | Auxiliary switch, add-on, 2 x SPDT  | S2A      |
|   | Feedback potentiometer 140 Ohm, add-on  | P140A    |
|   | Feedback potentiometer 200 Ohm, add-on  | P200A    |
|   | Feedback potentiometer 500 Ohm, add-on  | P500A    |
|   | Feedback potentiometer 1 kOhm, add-on   | P1000A   |
|   | Feedback potentiometer 2.8 kOhm, add-on   | P2800A   |
|   | Feedback potentiometer 5 kOhm, add-on   | P5000A   |
|   | Feedback potentiometer 10 kOhm, add-on  | P10000A  |
|   | Range controller for wall mounting, adjustable electron. Min./max. angle of rotation limitation | SBG24    |
|   | Positioner for wall mounting, range 0...100%  | SGA24    |
|   | Positioner for front-panel mounting, range 0...100%   | SGF24    |
|   | Positioner in a conduit box, range 0...100%   | SGE24    |
|   | Positioner for wall mounting, range 0...100%  | CRP24-B1 |
|   | Signal converter voltage/current, supply AC/DC 24V  | Z-UIC    |
| Digital position indicator for front-panel mounting, 0...99%, front mass 72 x 72 mm | ZAD24   |          |
| <b>Mechanical accessories</b>   | Actuator arm, for standard spindle clamp (reversible) K-SA                                      | AH-GMA   |
|   | Mounting kit for linkage operation, GM..A   | ZG-GMA   |
|   | Base plate extension from GM..A to GM..   | Z-GMA    |
|   | Straight ball joint with M8, suitable for damper crank arms KH8                                 | KG10A    |
|   | Damper crank arm, for damper spindles   | KH10     |

Electrical installation

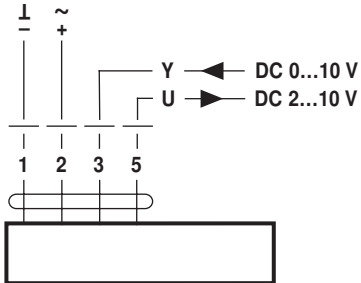


Notes

- Connection via safety isolating transformer.
- Parallel connection of other actuators possible. Observe the performance data.

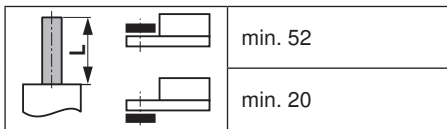
Wiring diagrams

AC/DC 24 V, modulating



Cable colours:  
1 = black  
2 = red  
3 = white  
5 = orange

Dimensions [mm]



Clamping ranges

|  |           |         |
|--|-----------|---------|
|  |           |         |
|  | 12...22   | 12...18 |
|  |           |         |
|  | 22...26.7 | 12...18 |

Dimensional drawings

