

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)2...10 V
- Position feedback DC 2...10 V



| Technical data  |  |   |
|-----------------|--|---|
| Electrical data | 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         | 4.5 W   |
|                 | Power consumption in rest position     | 2 W   |
|                 | Power consumption for wire sizing      | 6.5 VA  |
|                 | Connection supply / control            | Cable 1 m, 4 x 0.75 mm <sup>2</sup>                               |
|                 | Parallel operation                     | Yes (note the performance data)                                   |
| Functional data | Torque motor                           | Min. 40 Nm  |
|                 | Positioning signal Y                   | DC 010 V  |
|                 | Positioning signal Y note              | Input impedance 100 kΩ  |
|                 | Operating range Y                      | DC 210 V  |
|                 | Position feedback U                    | DC 210 V  |
|                 | Position feedback U note               | Max. 1 mA   |
|                 | Position accuracy                      | ±5%   |
|                 | Direction of motion motor              | selectable with switch 0 / 1                                      |
|                 | Direction of motion note               | Y = 0 V: At switch position 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)  |
|                 | Spindle driver                         | Universal spindle clamp reversible 1226.7 mm                      |
|                 | Position indication                    | Mechanically, pluggable   |
| Safety          | Protection class IEC/EN                | III Safety Extra-Low Voltage (SELV)                               |
| •               | Protection class UL                    | UL Class 2 Supply   |
|                 | Degree of protection IEC/EN            | IP54  |
|                 | Degree of protection NEMA/UL           | NEMA 2, UL Enclosure Type 2                                       |
|                 | EMC                                    | CE according to 2014/30/EU  |
|                 | Certification IEC/EN                   | 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 impulse voltage supply / control | 0.8 kV  |
|                 | Control pollution degree               | 3   |
|                 | Ambient temperature                    | -30°C 50°C  |
|                 | Non-operating temperature              | -40°C 80°C  |
|                 | Ambient humidity                       | 95% r.h., non-condensing  |

# Safety notes



Weight

Maintenance

Weight

• The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.

1.8 kg

Maintenance-free



## Safety notes

- Outdoor application: only possible in case that no (sea)water, snow, ice, insolation
  or aggressive gases interfere directly with the actuator and that is ensured that the
  ambient conditions remain at any time within the thresholds according to the data
  sheet.
- 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 site 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**

Mode of operation The actuator is connected with a standard modulating signal of DC 0...10V and drives

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.

Simple direct mounting

Simple direct mounting on the damper spindle with an universal spindle clamp, supplied with an anti-rotation device to prevent the actuator from rotating.

Manual override Ma

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

button is pressed or remains locked).

Adjustable angle of rotation

High functional reliability

Adjustable angle of rotation with mechanical end stops.

The actuator is overload protected, requires no limit switches and automatically stops when the end stop is reached.

## Accessories

| Description   | Туре       |
|---|------------|
| 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 140 Ohm, add-on, grey  | P140A GR   |
| Feedback potentiometer 200 Ohm, add-on  | P200A      |
| Feedback potentiometer 500 Ohm, add-on  | P500A      |
| Feedback potentiometer 500 Ohm, add-on, grey  | P500A GR   |
| Feedback potentiometer 1 kOhm, add-on   | P1000A     |
| Feedback potentiometer 1 kOhm, add-on, grey   | P1000A GR  |
| Feedback potentiometer 2.8 kOhm, add-on   | P2800A     |
| Feedback potentiometer 2.8 kOhm, add-on, grey   | P2800A GR  |
| Feedback potentiometer 5 kOhm, add-on   | P5000A     |
| Feedback potentiometer 5 kOhm, add-on, grey   | P5000A GR  |
| Feedback potentiometer 10 kOhm, add-on  | P10000A    |
| Feedback potentiometer 10 kOhm, add-on, grey  | P10000A GR |
| Signal converter voltage/current, supply AC/DC 24V  | Z-UIC      |
| Digital position indicator for front-panel mounting, 099%, front mass $72 \times 72 \text{ mm}$ | ZAD24      |
| Range controller for wall mounting, adjustable electron. Min./max. angle of rotation limitation | SBG24      |
| Positioner for wall mounting, range 0100%   | SGA24      |
| Positioner in a conduit box, range 0100%  | SGE24      |
| Positioner for front-panel mounting, range 0100%  | SGF24      |
| Positioner for wall mounting, range 0100%   | CRP24-B1   |



## **Accessories**

|                        | Description   | Туре     |
|------------------------|---|----------|
| Mechanical accessories | Actuator arm, for standard spindle clamp (reversible) K-SA      | AH-GMA   |
|                        | Straight ball joint with M8, suitable for damper crank arms KH8 | KG10A    |
|                        | Damper crank arm, for damper spindles                           | KH10     |
|                        | Universal mounting bracket 230 mm                               | Z-ARS230 |
|                        | Mounting kit for linkage operation, GMA                         | ZG-GMA   |
|                        | Base plate extension from GMA to GM                             | Z-GMA    |
|                        | Position indication for LMA, NMA, SMA, GMA                      | Z-PI     |

## **Electrical installation**

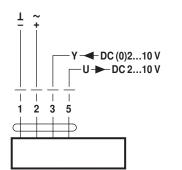


#### **Notes**

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

## Wiring diagrams

AC/DC 24 V, modulating

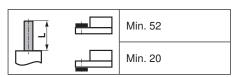


### Cable colours:

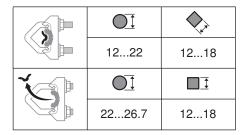
- 1 = black
- 2 = red
- 3 = white
- 5 = orange

# Dimensions [mm]

# Spindle length



# Clamping range



# **Dimensional drawings**

