**Technical data sheet CM24-SR-..**

**Modulating damper actuator for operating air control dampers in ventilation and air-conditioning systems for building services installations**
- For air dampers up to approx. 0.4 m²
- Torque 2 Nm
- Nominal voltage AC/DC 24 V
- Control: modulating DC 0 ... 10 V
- Position feedback DC 2 ... 10 V

### Type overview

<table>
<thead>
<tr>
<th>Type</th>
<th>Direction of rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM24-SR-L</td>
<td>Y = 0 V left end stop position 0</td>
</tr>
<tr>
<td>CM24-SR-R</td>
<td>Y = 0 V right end stop position 0</td>
</tr>
</tbody>
</table>

### Technical data

#### Electrical data
- **Nominal voltage**
  - AC 24 V, 50/60 Hz
  - DC 24 V
- **Nominal voltage range**
  - AC/DC 19.2 ... 28.8 V
- **Power consumption**
  - In operation: 1 W @ nominal torque
  - At rest: 0.5 W
  - For wire sizing: 2 VA
- **Connection**
  - Cable 1 m, 4 x 0.75 mm²

#### Functional data
- **Torque (nominal torque)**
  - Min. 2 Nm @ nominal voltage
- **Control**
  - Control signal Y
- **Operating range**
  - DC 0 ... 10 V, typical input impedance 100 kΩ
  - DC 2 ... 10 V
- **Position feedback (Measuring voltage U)**
  - DC 2 ... 10 V, max. 1 mA
- **Position accuracy**
  - ±5%
- **Direction of rotation**
  - See «Type overview»
- **Manual override**
  - Gear disengagement with magnet
- **Angle of rotation**
  - Max. 95°, limited on both sides by means of adjustable, mechanical end stops
- **Running time**
  - 75 s / 90° ~4
- **Sound power level**
  - Max. 35 dB (A)
- **Position indication**
  - Mechanical, pluggable
    (with integrated magnet for gear disengagement)

#### Safety
- **Protection class**
  - III Safety extra-low voltage / UL Class 2 Supply
- **Degree of protection**
  - IP54 in any mounting position
  - NEMA2, UL Enclosure Type 2
- **EMC**
  - CE according to 2004/108/EC
- **Certification**
  - cULus according to UL 60730-1A and UL 60730-2-14
  - and CAN/CSA E60730-1-02
  - Certified to IEC/EN 60730-1 and IEC/EN 60730-2-14
- **Mode of operation**
  - Type 1 (EN 60730-1)
- **Rated impulse voltage**
  - 0.8 kV (EN 60730-1)
- **Control pollution degree**
  - 3 (EN 60730-1)
- **Ambient temperature**
  - –30 ... +50 °C
- **Non-operating temperature**
  - –40 ... +80 °C
- **Ambient humidity**
  - 95% RH, non-condensing (EN 60730-1)
- **Maintenance**
  - Maintenance-free

#### Dimensions / Weight
- **Dimensions**
  - See «Dimensions» on page 2
- **Weight**
  - Approx. 220 g

### Safety notes

- The actuator is not allowed to be used outside the specified field of application, especially in aircraft or any other form of air transport.
- Assembly must be carried out by trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The mechanical end stops for restricting the angle of rotation are only allowed to be removed for adjustment purposes. It is essential for them to be in place during operation.
Modulating damper actuator, AC/DC 24 V, 2 Nm

Product features

Mode of operation
The actuator is controlled by means of a standard control signal DC 0 ... 10 V. It opens to the position dictated by this signal. The measuring voltage U allows the damper position (0 ... 100%) to be electrically indicated and serves as a follow-up control signal for other actuators.

Simple direct mounting
Simple direct mounting on the damper spindle with a universal spindle clamp (∅ 6 ... 12.7 mm). The actuator is then secured with the anti-rotation strap supplied, to prevent it from rotating.

Manual override
Manual override with magnet possible (the gear is disengaged as long as the magnet adheres to the symbol U. The magnet for gear disengagement is integrated in the position indicator.

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

High functional reliability
The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.

Home position
When the supply voltage is switched on for the first time and after every voltage interruption, the synchronisation process is started and the actuator travels to home position (Y = 0 V).

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<th>Type</th>
<th>Home position</th>
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<tr>
<td>CM24-SR-L</td>
<td>Y = 0 V ccw Left stop</td>
</tr>
<tr>
<td>CM24-SR-R</td>
<td>Y = 0 V cw Right stop</td>
</tr>
</tbody>
</table>

The actuator then moves into the position defined by the control signal.

Electrical installation

Wiring diagram

Notes
- Connection via safety isolating transformer.
- Other actuators can be connected in parallel.

Please note the performance data.

Dimensions [mm]

<table>
<thead>
<tr>
<th>Damper spindle</th>
<th>Length</th>
<th>∅</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥32</td>
<td>6 ... 12.7</td>
<td></td>
</tr>
</tbody>
</table>