

227C-024-16I(-S1) Rotary Actuator

Description

Rotary actuator for adjusting dampers in HVAC installations.

- Running time 100 s / 90°
- Torque 16 Nm
- Nominal voltage 24 VAC/DC
- Control continuous control (0)2...10 VDC
- Damper size up to approx. 3 m²
- Damper coupling clamp
∅ 8-15 mm / Ø 8-20 mm



Technical data

Electrical data

| | |
|---|--|
| Nominal voltage | 24 VAC/DC, 50/60Hz |
| Nominal voltage range | 19...29 VAC/DC |
| Power consumption motor (motion) | 2.5 W |
| Power consumption standby (end position) | 1.0 W |
| Wire sizing | 4.0 VA |
| Control | 2-/3-point |
| Connection motor | cable 1000 mm, 3 x 0.75 mm ² (halogen free) |
| Connection feedback potentiometer | - |
| Connection GUAC | - |
| Feedback signal | 0)2...10 VDC, max. 5 mA |
| 227C-024-16I-S1 | |
| Auxiliary switch | - 1 x SPDT (ag) |
| Contact load | - 5 (2.5) A, 250 VAC |
| Switching point | - 0...95° |
| Connection auxiliary switch | cable 1000 mm, 3 x 0.75 mm ² (halogen free) |

Functional data

| | |
|------------------------------|---|
| Torque | 16 Nm |
| Damper size | up to approx. 3 m ² |
| Synchronized speed | +/-5% |
| Direction of rotation | selected by switch |
| Manual override | gearing latch disengaged with pushbutton, self-resetting |
| Angle of rotation | 0°...max. 95° can be limited with adjustable mechanical end stops ; after changing the angle of rotation, a adaptation drive must be made |
| Running Time | 100 s / 90° |
| Sound power level | < 45 dB(A) |
| Shaft coupling | clamp \diamond 8-15 mm / \varnothing 8-20 mm |
| Position indication | mechanical with pointer |
| Service life | > 100,000 cycles (0°...95°...0°) |

Safety

| | |
|---|--|
| Protection class | III (safety extra-low voltage) |
| Degree of protection | IP 54 (cable downwards) |
| EMC | CE (2014/30/EU) |
| LVD | CE (2014/35/EU) |
| RoHS | CE (2011/65/EU - 2015/863/EU - 2017/2102/EU) |
| Mode of operation | Typ 1 (EN 60730-1) |
| Rated impulse voltage auxiliary switch | 0.8 kV (EN 60730-1) |
| Control pollution degree | 3 (EN 60730-1) |
| Ambient temperature normal operation | -30°C...+50°C |
| Storage temperature | -30°C...+80°C |
| Ambient humidity | 5...95% r.H., non condensing (EN 60730-1) |
| Maintenance | Maintenance free |

Dimensions/Weight

| | |
|--------------------|------------------|
| Dimensions | 117 x 67 x 66 mm |
| Weight | 350 g |
| Weight (S1) | 510 g |

Functionality / Properties

Operating mode

Connect power supply to wire 1+2 and a reference signal Y to wire 3 in range of (0)2...10 VDC, actuator drives to its specified position. The actual damper position (0...100%) is a feedback signal U on wire 4 for example to share with other actuators. The actuator is overload-proof, requires no limit switches and automatically stops, when the end stop is reached.

Direct mounting

Simple direct mounting on the damper shaft with a clamp, protection against rotating with enclosed anti-rotation lock or rather at intended attachment points.

Manual override

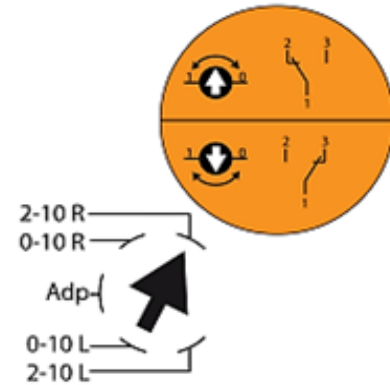
Manual override with self resetting push button possible (the gear is disengaged as long as the button is pressed).

Mode switch

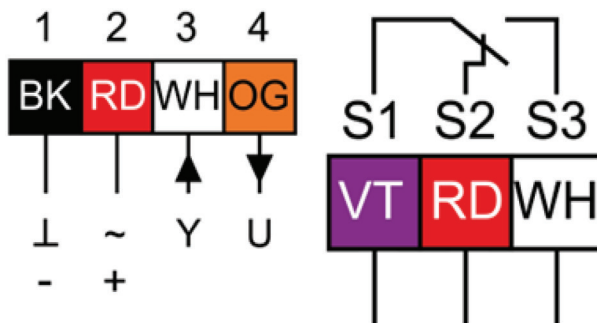
Mode switch with five positions at the housing:
 2-10 R: rotary direction right 2-10 VDC
 0-10 R: rotary direction right 0-10 VDC
 Adp: adaption
 0-10 L: rotary direction left 0-10 VDC
 2-10 L: rotary direction left 2-10 VDC

Adaption drive

- Actuator power off
- Setting the mechanical end stops
- Actuator power on
- Adaption enable
- Actuator drive to position 0
- Actuator drive to position 1
- Adaption disable, if desired angular range reached or rather if actuator reached endstop
- "Y" refers to the measured angular range



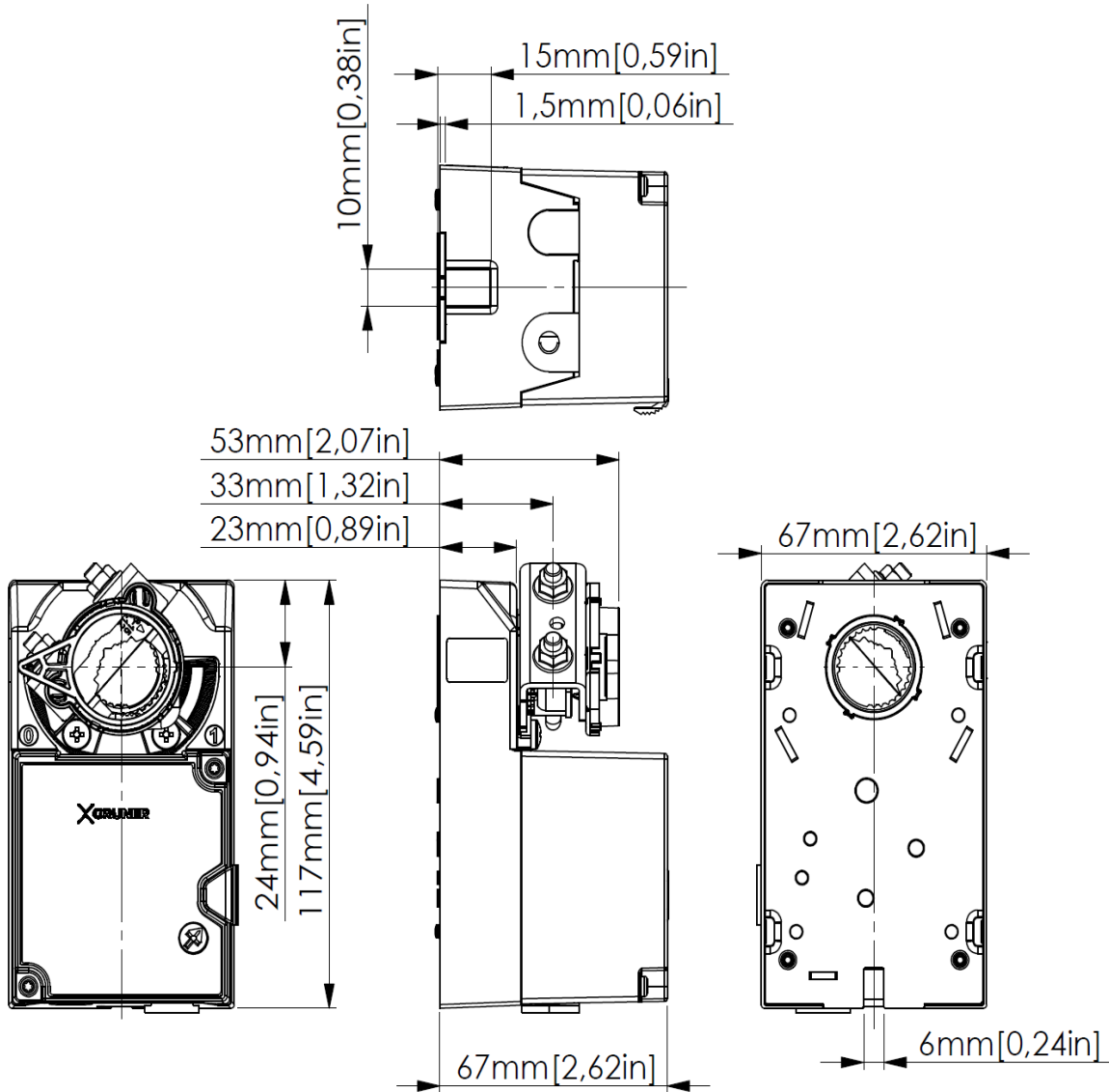
Connector / Security Note



Safety remarks

- Connect via safety isolation transformer.
- The device is not allowed to be used outside the specified field of application, especially in airplanes.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The device may only be opened at the manufacturer's site.
- The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When calculating the required torque, the specifications supplied by the damper manufacturer's (cross section, design, installation site), and the air flow conditions must be observed.

Technical Drawing



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