

# RDAS7S...

Damper actuator with spring return, 7 Nm



*Damper actuator with spring return, 7 Nm. For 2-point (on/off) or 0...10V control signal.*

- ✓ Torque 7 Nm
- ✓ Spring return
- ✓ For dampers up to 1,5m<sup>2</sup>
- ✓ Special versions with auxiliary switches
- ✓ 24 V and 230 V supply voltage
- ✓ 2-point (on/off) or 0(2)-10 V control
- ✓ Manual override

## Application

Spring-return actuators are used in ventilation and air conditioning plants to operate air dampers and air throttles. The actuators can be used for damper areas up to 1.5 m<sup>2</sup> and are friction-dependant. They can also be used in ventilation sections where the actuator must move to the zero position, i.e. emergency position, during power failure.

## Function

When the supply voltage is connected, the actuator moves to a working position corresponding to the control signal (2-point or 0...10 V). On power failure or when the operating voltage is switched off, the spring return moves the actuator to its mechanical zero position.

The damper actuator is adjustable, also manually.

## Installation

The actuator is mounted on a mounting bracket. Choose the position carefully, for easy access of cables and setting elements. To double the torque, mount two actuators on the same damper, i.e. tandem-mounting.

For mounting, turn the actuator by 180° depending on the necessary rotary direction.

The mounting bracket (see dimensions) is required for mounting on the damper shaft. The insertion depth for the bolt into the housing must be sufficient and guaranteed.

The shaft adapter and all other individual parts are not premounted, as the actuator components are put together differently depending on either clockwise or counterclockwise rotation of the damper shaft and damper shaft length.

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## Technical data

|   |   |
|---|---|
| <b>Mounting</b>                         | Mounting bracket, interior, weather protected |
| <b>Torque</b>                           | 7 Nm  |
| <b>Max. damper size</b>                 | 1.5 m <sup>2</sup>                            |
| <b>Running time, actuator</b>           | 90 s/90°                                      |
| <b>Closing time, spring</b>             | 15 s/90°                                      |
| <b>Damper shaft, round</b>              | 6.4...20.5 mm                                 |
| <b>Damper shaft, square</b>             | 6.4...13 mm                                   |
| <b>Damper shaft, min. shaft length</b>  | 20 mm   |
| <b>Damper shaft, hardness</b>           | <300 HV                                       |
| <b>Working angle, rotation</b>          | 90°   |
| <b>Angle limitation</b>                 | 95°   |
| <b>Sound power level, actuator</b>      | 40 dB   |
| <b>Sound power level, spring return</b> | 61dB  |
| <b>Cable length</b>                     | 0,9 m (Maximum extension 300 m)               |
| <b>Cable</b>                            | 0,75 mm <sup>2</sup>                          |
| <b>Ambient humidity</b>                 | 0...95% RH (non-condensing)                   |
| <b>Ambient temperature</b>              | -32...55 °C                                   |
| <b>Storage temperature</b>              | -32...70 °C                                   |
| <b>Protection class</b>                 | IP54  |



This product carries the CE-mark. More information is available at [www.regincontrols.com](http://www.regincontrols.com).

## All models

| Article     | Supply voltage                                    | Power consumption                      | Auxiliary switch | Control signal  |
|-------------|---|--|------------------|-----------------|
| RDAS7S-230  | 230 V ~ (100...240 V ~ 50/60 Hz)                  | 7 VA (4.5 W - Running / 3.5 W Holding) | N/A              | 2-point, On/Off |
| RDAS7S-230S | 230 V ~ (100...240 V ~ 50/60 Hz)                  | 7 VA (4.5 W - Running / 3.5 W Holding) | Yes              | 2-point, On/Off |
| RDAS7S-24   | 24 V AC/DC (20...28 V AC 50/60 Hz / 24...48 V DC) | 5 VA (3.5 W - Running / 2 W - Holding) | N/A              | 2-point, On/Off |
| RDAS7S-24S  | 24 V AC/DC (20...28 V AC 50/60 Hz / 24...48 V DC) | 5 VA (3.5 W - Running / 2 W - Holding) | Yes              | 2-point, On/Off |
| RDAS7S-24A  | 24 V AC/DC (20...28 V AC 50/60 Hz / 24...48 V DC) | 5 VA (3.5 W - Running / 2 W - Holding) | N/A              | 0...10 V        |

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## Models with auxiliary switch

| Article                   | Switching voltage            | Contact rating   | Electric strength auxiliary switch against housing | Switching range | Factory switch setting        |
|---------------------------|------------------------------|--|--|-----------------|-------------------------------|
| RDAS7S-230S<br>RDAS7S-24S | AC 24...230 V / DC 12...30 V | 6 A resistive, 2 A inductive, min. 10 mA @AC<br>4 A resistive, 2 A inductive, min. 10 mA @DC 30 V<br>0.8 A resistive, 0.5 A inductive, min. 10 mA @DC 60 V | AC 4 kV  | 5°...90° / 5°   | 5° (Switch A), 85° (Switch B) |

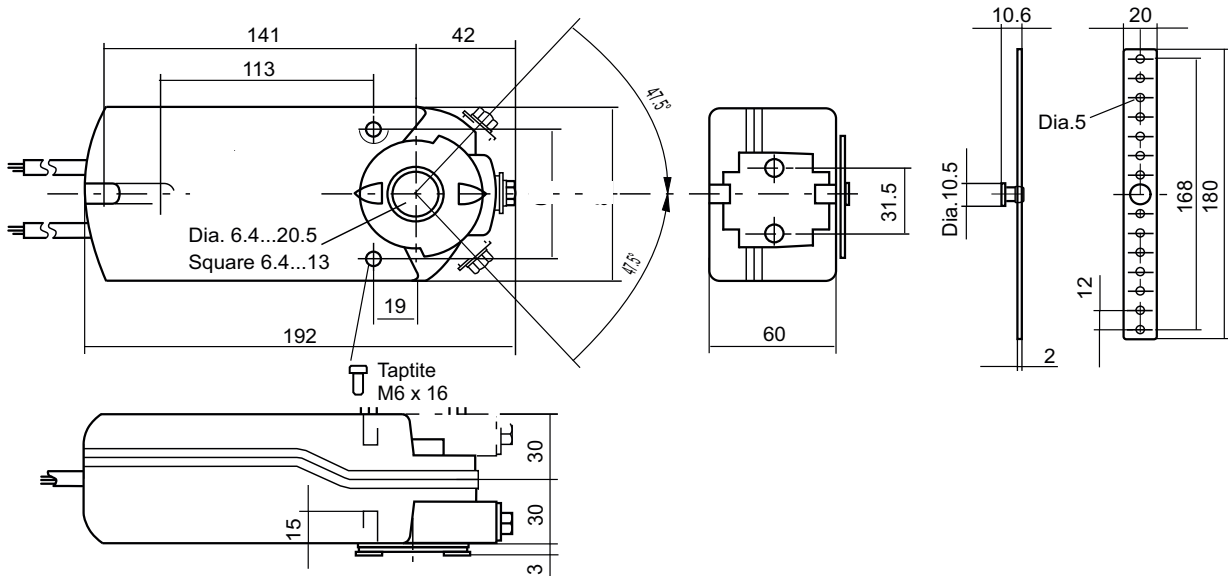
## Inputs

| Positioning signal      |                                 |                |                               |
|-------------------------|---------------------------------|----------------|-------------------------------|
| RDAS7S-230, RDAS7S-230S | Operating voltage               | Wires 3-4/L-N  | open/close                    |
|                         | AC 100...240 V ~                |                |                               |
| RDAS7S-24, RDAS7S-24S   | Operating voltage               | Wires 1-2/G-G0 | open/close                    |
|                         | AC 24V ~ / DC 24...48 V         |                |                               |
| RDAS7S-24A              | Input voltage                   | Wires 8-2/Y-G0 | DC 0/2...10 V                 |
|                         | Current consumption             |                | 0.1 mA                        |
|                         | Input resistance                |                | >100kΩ                        |
|                         | Max. permissible input voltage  |                | DC 35 V                       |
|                         | Protected against faulty wiring |                | max. AC 24 V ~ / DC 24...48 V |

## Accessories

| Article  | Description  |
|----------|--|
| ASK71.9  | Damper crank arm for RDAS with torque 5-35Nm                           |
| ASC77.1E | External aux. switch (1) for RDAS with torque 7Nm, 18Nm, 20Nm and 35Nm |
| ASC77.2E | External aux. switch (2) for RDAS with torque 7Nm, 18Nm, 20Nm and 35Nm |
| ASK74.7  | Shaft extension for RDAS with torque 7-35Nm                            |

## Dimensions



[mm]

## Wiring

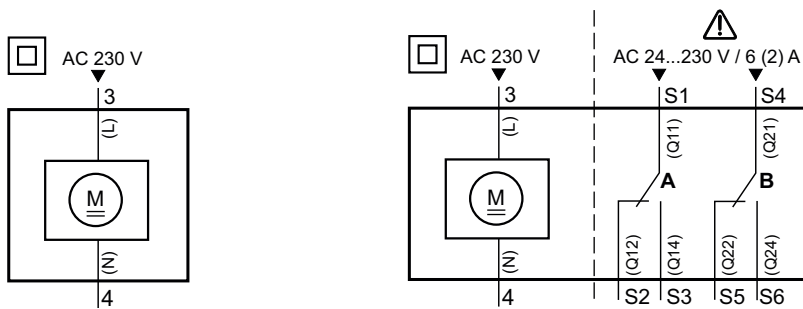


Fig. 1 230 V without auxiliary switch (left). 230 V with auxiliary switch (right).

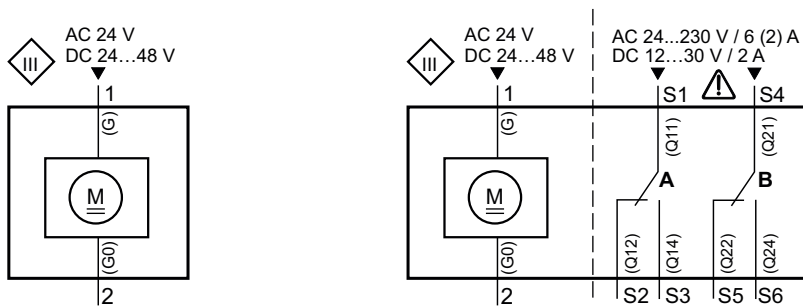


Fig. 2 24 V without auxiliary switch (left). 24 V with auxiliary switch (right).

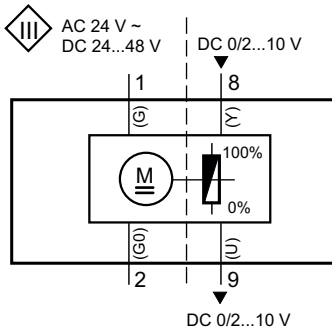
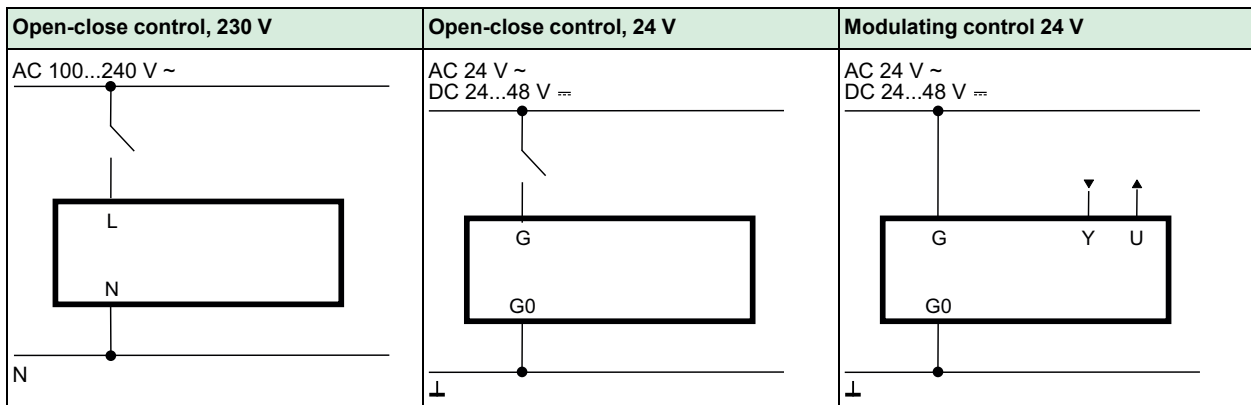


Fig. 3 0...10 V without auxiliary switch.

## Extended wiring



## Cable labelling

| Connection                           | Code | No. | Color      | Abbreviation | Description                           |
|--------------------------------------|------|-----|------------|--------------|---------------------------------------|
| Actuators<br>AC 230 V                | L    | 3   | brown      | BN           | Phase AC 230 V                        |
|                                      | N    | 4   | blue       | BU           | Neutral conductor                     |
| Actuators<br>AC 24 V<br>DC 24...48 V | G    | 1   | red        | RD           | System potential AC 24V /DC 24...48 V |
|                                      | G0   | 2   | black      | BK           | System neutral                        |
|                                      | Y    | 8   | grey       | GY           | Position signal DC 0...10 V           |
|                                      | U    | 9   | pink       | PK           | Position indication DC 0...10V        |
| Auxiliary<br>switch                  | Q11  | S1  | grey/red   | GY RD        | Switch A input                        |
|                                      | Q12  | S2  | grey/blue  | GY BU        | Switch A normally-closed contact      |
|                                      | Q14  | S3  | grey/pink  | GY PK        | Switch A normally-open contact        |
|                                      | Q21  | S4  | black/red  | BK RD        | Switch B input                        |
|                                      | Q22  | S5  | black/blue | BK BU        | Switch B normally-closed contact      |
|                                      | Q24  | S6  | black/pink | BK PK        | Switch B normally-open contact        |

## Documentation

All documentation can be downloaded from [www.regincontrols.com](http://www.regincontrols.com).