RDAS18S...

Damper actuator with spring return, 18 Nm

Damper actuator with spring return, 18 Nm. For 2-point (on/off) or 0...10V control signal.

- ✓ Torque 18 Nm
- ✓ Spring return
- ✓ For dampers up to 3 m²
- ✓ 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 3 m² 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, and can be individually customized if needed.

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. All setting and operating elements are available on both sides of the actuator, depending on clockwise or counter-clockwise rotation.

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.

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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.

Technical data

Mounting	Mounting bracket, interior, weather protected
Torque	18 Nm
Max. damper size	3.0 m^2
Running time, actuator	90 s/90°
Closing time, spring	15 s/90°
Damper shaft, round	8…25.6 mm
Damper shaft, square	6…18 mm
Damper shaft, min. shaft length	20 mm
Damper shaft, hardness	<300 HV
Working angle, rotation	90°
Angle limitation	95°
Sound power level, actuator	46 dB
Sound power level, spring return	71 dB
Cable length	0,9 m (Maximum extension 300 m)
Cable	0,75 mm^2
Ambient humidity	0…95% RH (non-condensing)
Ambient temperature	-32…55 °C
Storage temperature	-32…70 °C
Protection class	IP54

CE

This product carries the CE-mark. More information is available at www.regincontrols.com.

All models

Article	Supply voltage	Power consumption	Auxiliary switch	Control signal
RDAS18S-230	230 V ~ (100…240 V ~ 50/60 Hz)	8 VA (6W - Running / 4 W - Holding)	N/A	2-point (on/off)
RDAS18S-230S	230 V ~ (100…240 V ~ 50/60 Hz)	8 VA (6W - Running / 4 W - Holding)	Yes	2-point (on/off)
RDAS18S-24	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	7 VA (5W - Running / 3W - Holding)	N/A	2-point (on/off)
RDAS18S-24S	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	7 VA (5W - Running / 3W - Holding)	Yes	2-point (on/off)
RDAS18S-24A	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	7 VA (5W - Running / 3W - Holding)	N/A	0…10 V

Models with auxiliary switch

Article	Switching voltage	Contact rating	Electric strength auxiliary switch against housing	Switching range	Factory switch setting
RDAS18S-230S RDAS18S-24S	AC 24…230 V / DC 12…30 V	6 A resistive, 2 A inductive, min. 10 mA @AC 4 A resistive, 2 A inductive, min. 10 mA @AC 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)

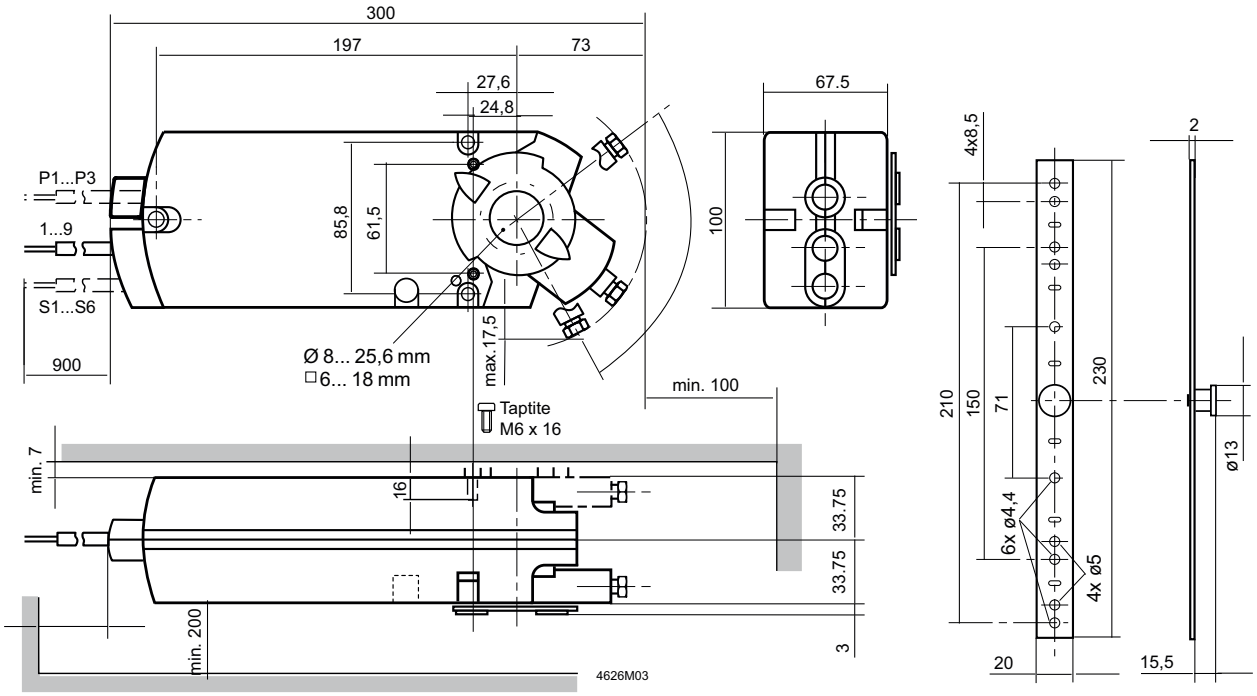
Inputs

Positioning signal			
RDAS18S-230, RDAS18S-230S	Operating voltage	Wires 3-4/L-N	open/close
	AC 100…240 V ~		
RDAS18S-24, RDAS18S-24S	Operating voltage	Wires 1-2/G-G0	open/close
	AC 24V ~ / DC 24…48 V		
RDAS18S-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

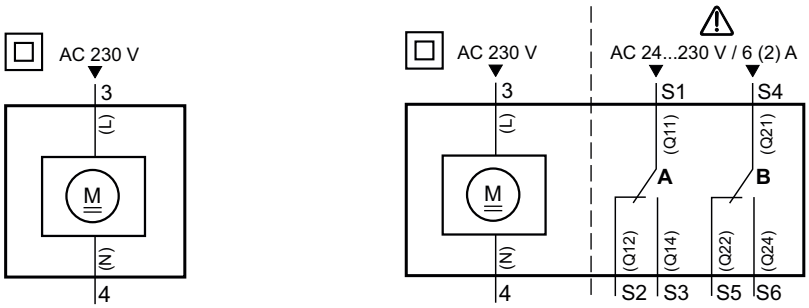


Fig. 1 230 V without auxiliary switch (left). 230 V with auxiliary switch (right).

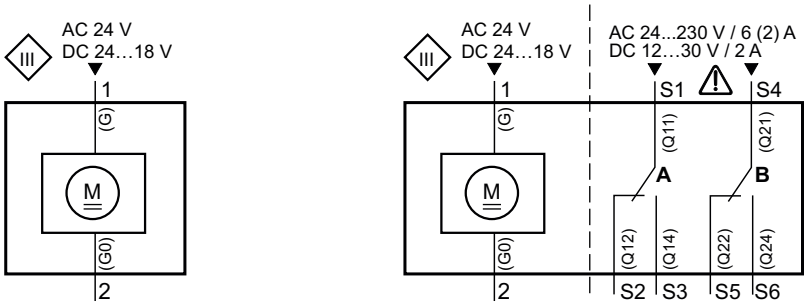


Fig. 2 24 V without auxiliary switch (left). 24 V with auxiliary switch (right).

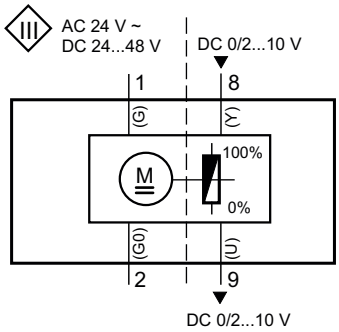
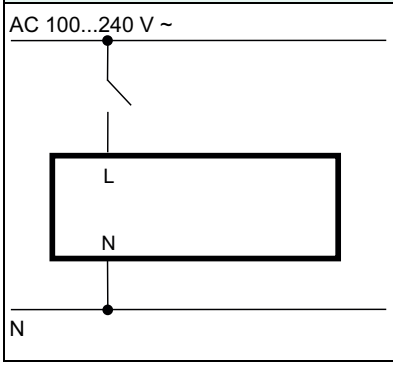
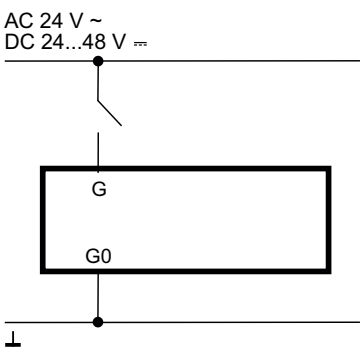
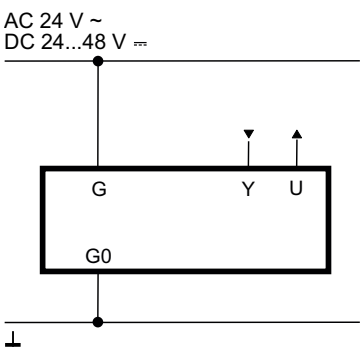


Fig. 3 0...10 V without auxiliary switch.

Extended wiring

Open-close control, 230 V	Open-close control, 24 V	Modulating control 24, V
		

Cable labelling

Connection	Code	No.	Color	Abbreviation	Description
Actuators AC 230 V	L	3	brown	BN	Phase AC 230 V
	N	4	blue	BU	Neutral conductor
Actuators AC 24 V 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, 0…35 V
	U	9	pink	PK	Position indication DC 0…10V
Auxiliary 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.