RDAS4S...

Damper actuator with spring return, 4 Nm

Damper actuator with spring return, 4 Nm. For 2-point (on/off) or 0...10V control signal.

- ✓ Torque 4 Nm
- ✓ Spring return
- ✓ For dampers up to 0,6 m²
- ✓ Special versions with auxiliary switches
- ✓ 24 V and 230 V supply voltage
- ✓ 2-point (on/off) or 0(2)-10 V control

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 0.6 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.

Installation

The actuator is mounted on a mounting bracket. For easy access to the cables and the setting elements on the front of the actuator, choose the mounting position carefully.

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

Mounting	Mounting bracket, interior, weather protected
Torque	4 Nm
Max. damper size	0.6 m^2
Running time, actuator	60 s/90°
Closing time, spring	15 s/90°
Damper shaft, round	8…15 mm
Damper shaft, square	6…11 mm
Damper shaft, min. shaft length	20 mm
Damper shaft, hardness	<300 HV
Working angle, rotation	90°
Angle limitation	95°
Sound power level, actuator	40 dB
Sound power level, spring return	60 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
RDAS4S-230	230 V ~ (100…240 V ~ 50/60 Hz)	6.9 VA (2.9 W - Running / 1.9 W - Holding)	N/A	2-point, On/Off
RDAS4S-230S	230 V ~ (100…240 V ~ 50/60 Hz)	6.9 VA (2.9 W - Running / 1.9 W - Holding)	Yes	2-point, On/Off
RDAS4S-24	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	4.3 VA (2.7W - Running / 1.5 W - Holding)	N/A	2-point, On/Off
RDAS4S-24S	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	4.3 VA (2.7W - Running / 1.5 W - Holding)	Yes	2-point, On/Off
RDAS4S-24A	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	4.3 VA (2.7W - Running / 1.5 W - 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
RDAS4S-230S RDAS4S-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)

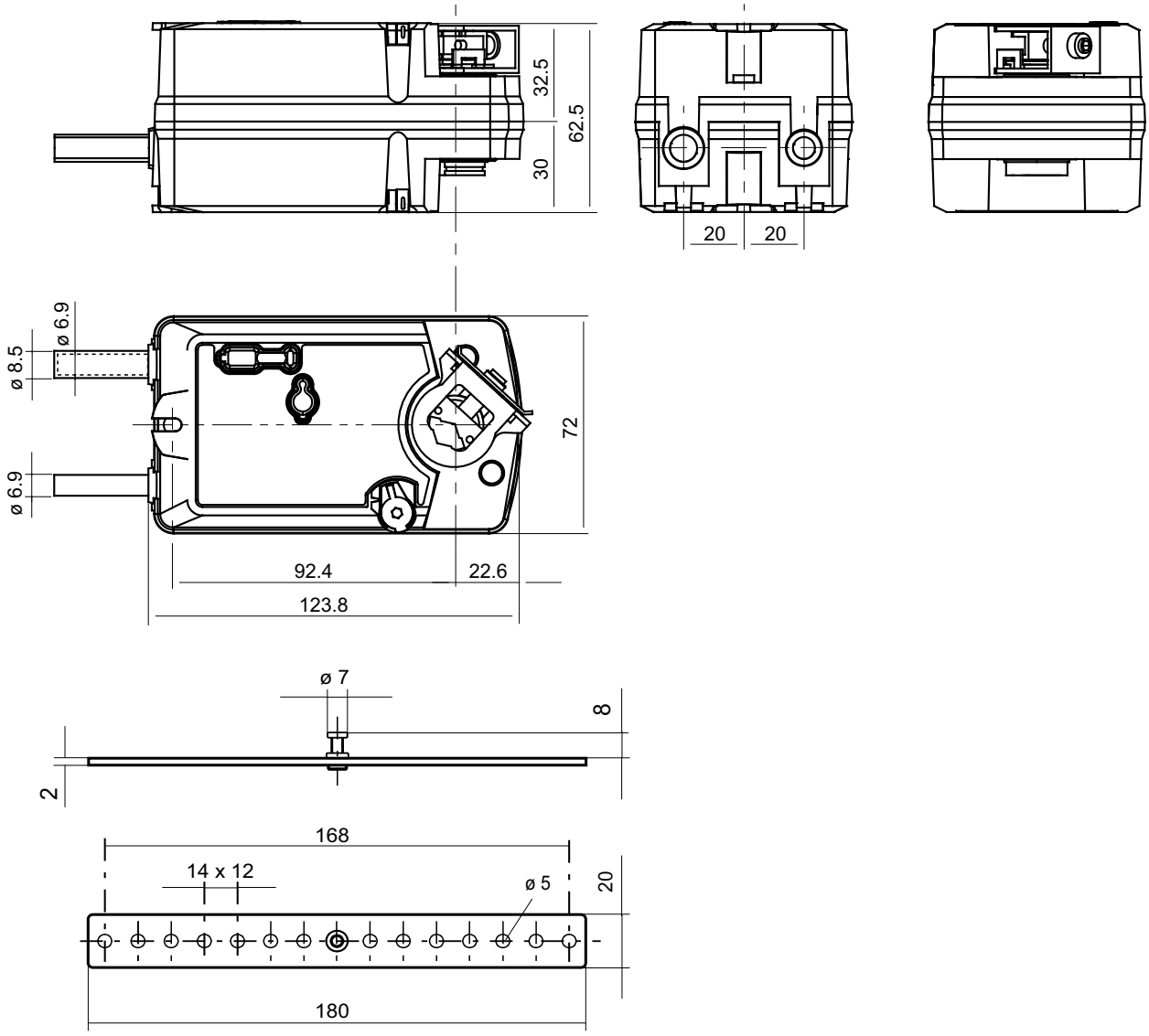
Inputs

Positioning signal			
RDAS4S-230, RDAS4S-230S	Operating voltage	Wires 3-4/L-N	open/close
	AC 100…240 V ~		
RDAS4S-24, RDAS4S-24S	Operating voltage	Wires 1-2/G-G0	open/close
	AC 24V ~ / DC 24…48 V		
RDAS4S-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 limited to DC 10V
	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

Dimensions



[mm]

[mm], unless otherwise specified

Wiring

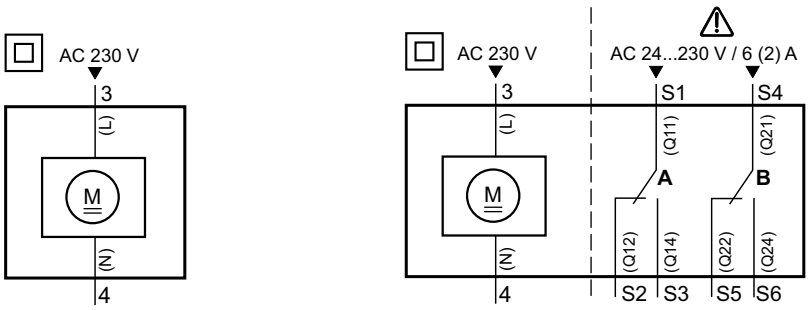


Fig. 1 230 V without auxiliary switch (left). 230 V with auxiliary switch (right).

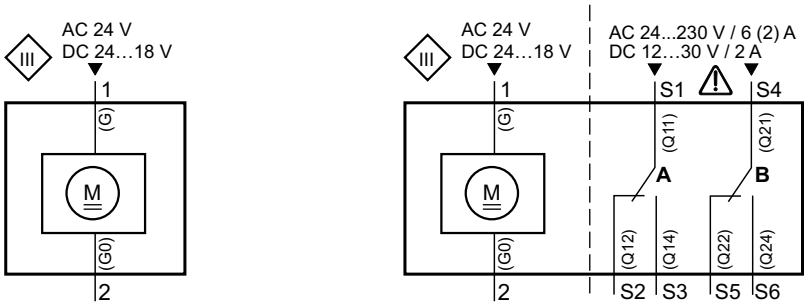


Fig. 2 24 V without auxiliary switch (left). 24 V with auxiliary switch (right).

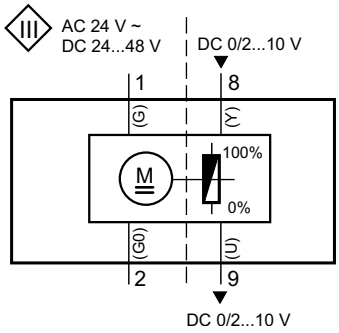
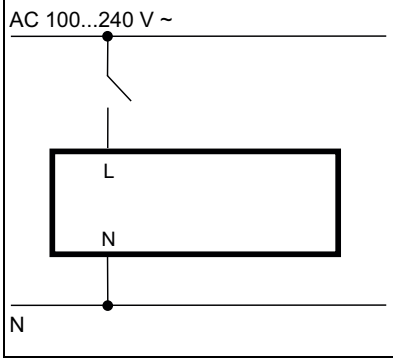
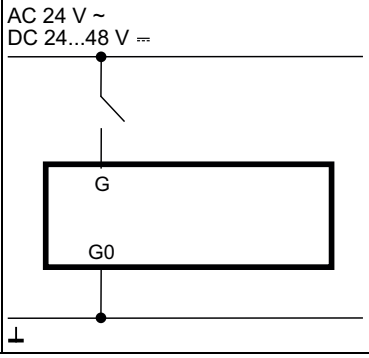
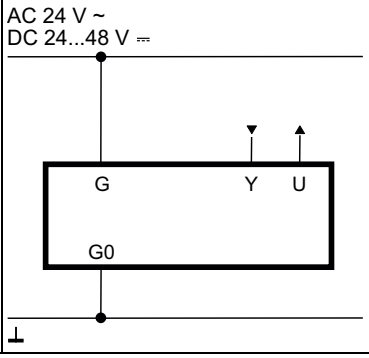


Fig. 3 0...10 V without auxiliary switch.

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 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	Signal in (RDAS4S-24A)
	U	9	pink	PK	Signal out(RDAS4S-24A)
Actuators AC 230 V	L	3	brown	BN	Line AC 100…240 V ~
	N	4	blue	BU	Neutral conductor

Connection	Code	No.	Color	Abbreviation	Description
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.