RDAS10...

Damper actuator, 10 Nm

Damper actuator without spring return, 10 Nm. For 2-point (on/off)/3-point or 0...10 V control signal.

- ✓ Torque 10 Nm
- ✓ For dampers up to 1,6 m²
- ✓ Special versions with auxiliary switches
- ✓ 24 V and 230 V supply voltage
- ✓ Combined 2-point (on/off)/3-point or 0(2)-10 V control
- ✓ Manual override

Application

The 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 1.6m² and are friction-dependent

The damper actuators are suitable for modulating controllers (DC 0...10 V) or 2-point (on/off)/3-point controllers, e.g. rotary and linear dampers for air outlets

Function

When the supply voltage is connected, the actuator moves to a working position corresponding to the control signal (2-point, 3-point or 0…10 V). The position indication is mechanical and electrical. The rotational angle range is self-adaptive and the auxiliary switches for supplementary functions are adjustable.

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.

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 actuator can be manually adjusted by pushing the gear train disengagement button.

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Technical data

Mounting	Mounting bracket, interior, weather protected
Torque	10 Nm
Max. damper size	1,6 m^2
Running time, actuator	150 s/90°
Damper shaft, round	8…16 mm alt.8…10 (with centering element)
Damper shaft, square	6…12,8 mm
Damper shaft, min. shaft length	20 mm
Damper shaft, hardness	<300 HV
Working angle, rotation	90°
Angle limitation	95°
Sound power level	28 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
RDAS10-230	230 V ~ (100…240 V ~ 50/60 Hz)	6 VA (2 W - Running / 0.9 W - Holding)	N/A	2-point (on/off)/3-point
RDAS10-230S	230 V ~ (100…240 V ~ 50/60 Hz)	6 VA (2 W - Running / 0.9 W - Holding)	Yes	2-point (on/off)/3-point
RDAS10-24	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	2.2 VA (1.3 W - Running / 0.5 W - Holding)	N/A	2-point (on/off)/3-point
RDAS10-24S	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	2.2 VA (1.3 W - Running / 0.5 W - Holding)	Yes	2-point (on/off)/3-point
RDAS10-24A	24 V AC/DC (20…28 V AC 50/60 Hz / 24…48 V DC)	2.5 VA (1.5 W - Running / 0.2 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
RDAS10-230S RDAS10-24S	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)

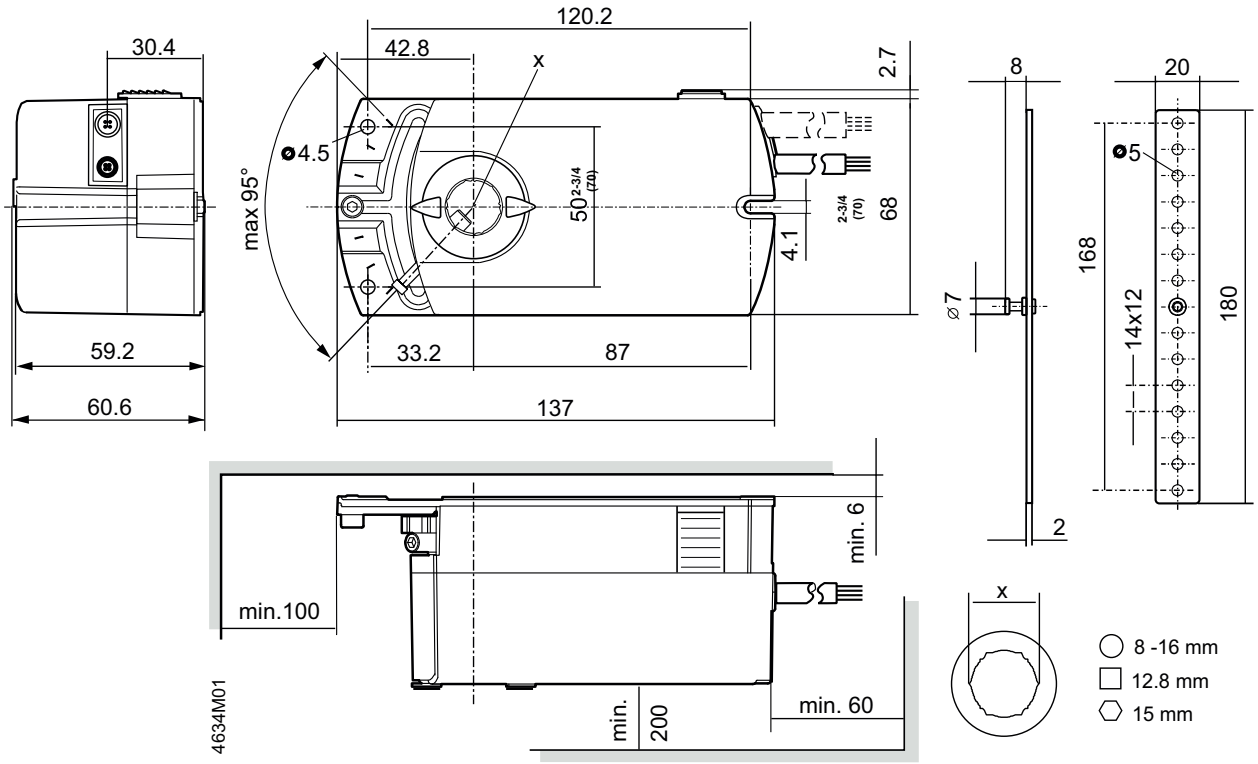
Inputs

Positioning signal			
RDAS10-230, RDAS10-230S	Operating voltage	Wires 4-6/N-Y1	Clockwise
	AC 100…240 V ~	Wires 4-7/N-Y2	Counterclockwise
RDAS10-24, RDAS10-24S	Operating voltage	Wires 1-6/G-Y	Clockwise
	AC 24V ~ / DC 24…48 V	Wires 1-7/G-Y2	Counterclockwise
RDAS10-24A	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
ASK71.6	Rotary/linear set with lever and plate for RDAS5 and RDAS10
ASK78.6	Centering insert for RDAS5 and RDAS10, 8x8mm square profile
ASK78.7	Centering insert for RDAS5 and RDAS10, 10x10mm square profile
ASK74.7	Shaft extension for RDAS with torque 7-35Nm

Dimensions



[mm]

Wiring

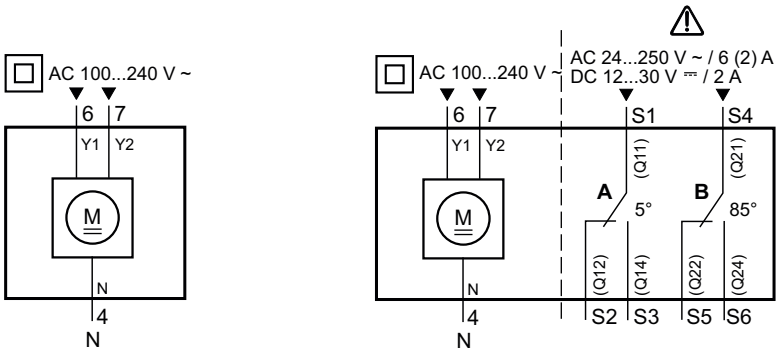


Fig. 1 230 V without auxiliary switch (left). 230 V with auxiliary switch (right).

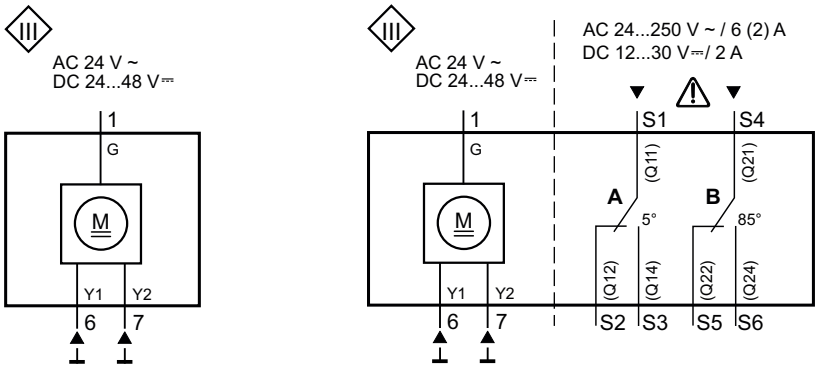


Fig. 2 24 V without auxiliary switch (left). 24 V with auxiliary switch (right).

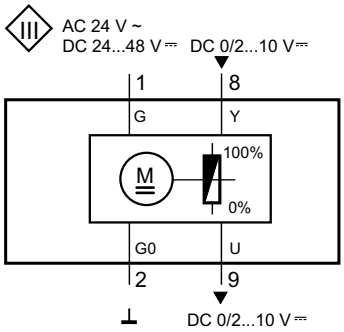
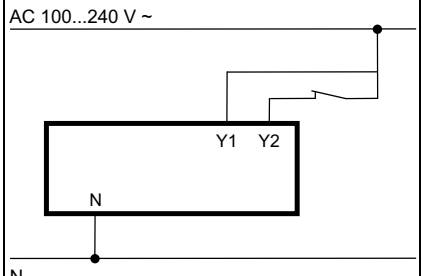
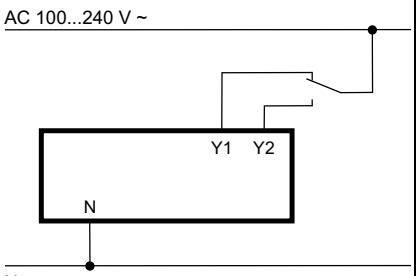
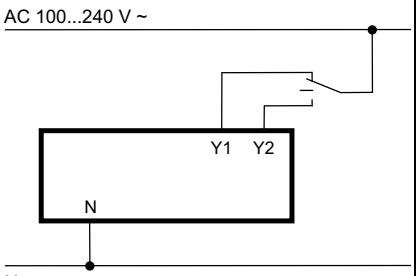
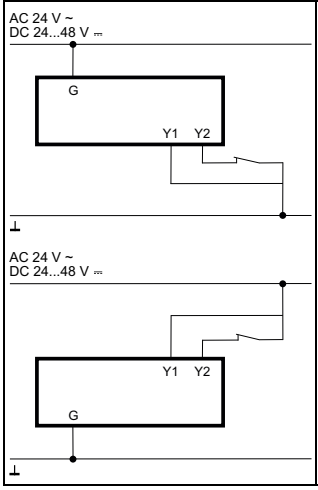
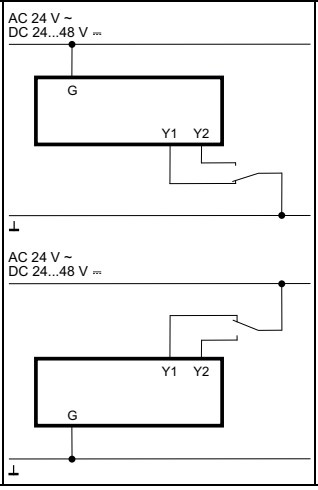
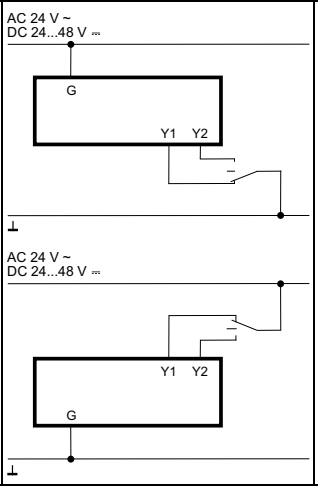
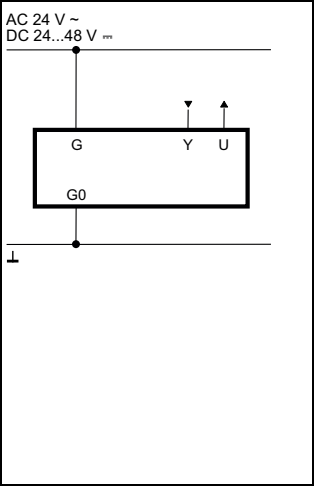


Fig. 3 0...10 V without auxiliary switch.

Extended wiring - 230 V

Open-close, single wire control Single Pole Single Throw (SPST)	**Open-close, two wire control Single Pole Double Throw (SPDT)**	**Three-position control**
		

Extended wiring - 24 V

Open-close, single wire control Single Pole Single Throw (SPST)	**Open-close, two wire control Single Pole Double Throw (SPDT)**	**Three-position control**	**Modulating control**
			

Cable labelling

Connection	Code	No.	Color	Abbreviation	Description
Actuators AC 100…240 V ~	L	3	brown	BN	Line AC 100…240 V ~
	N	4	light blue	BU	Neutral conductor
	Y1	6	black	BK	Positioning signal AC/DC 100…240 V "clockwise" (RDAS10-230, RDAS10-230S)
	Y2	7	white	WH	Positioning signal AC/DC 100…240 V "counter clockwise" (RDAS10-230, RDAS10-230S)
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
	Y1	6	purple	VT	Positioning signal AC/DC 0 V "clockwise" (RDAS10-24, RDAS10-24S)
	Y2	7	orange	OG	Positioning signal AC/DC 0 V "counter clockwise" (RDAS10-24, RDAS10-24S)
	Y	8	grey	GY	Signal in (RDAS10-24A)
	U	9	pink	PK	Signal out (RDAS10-24A)
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.