

RVAZ2

Valve actuator, 24 V or 230 V supply voltage and 0...10 V or 2– point/3–point control



RVAZ2 is a range of electromechanical valve actuators with 200N actuating force intended for control of Regin's valves VTTV/VTTR/VTTB, CTV, RTV, FVR and PCTVS/PCMTV (DNI 5-32 with stroke 2.7 mm/6 mm) as well as for a wide range of other valves on the market. The actuators can be operated manually with the manual override mechanism, using an Allen key, on the top.

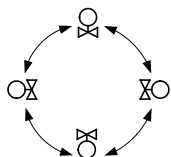
- ✓ Automatic stroke detection 1-8.5 mm stroke
- ✓ DIP-switches for settings (0...10 V)
- ✓ LED indication
- ✓ IP54 with upside down mounting possible
- ✓ Halogen free cable

Application

RVAZ2 is a range of electromechanical actuators intended for use in applications such as heating, cooling, ventilation, chilled beams, fan-coils, and radiators. Model RVAZ2-24A has DIP switches for setting different functions.

Installation

The actuators are easily installed. Upside down mounting is allowed, along with the standard horizontal and vertical installations.



Manual power is sufficient when fixing the actuator to the valve. Do not use any tools as they can damage the actuator bracket. A support washer for the actuator

bracket is included in the box and might be needed for certain valves.

The actuators are also easily used with valves of other brands. For requirements for valves that can be motorised, see Fig. 1 below.

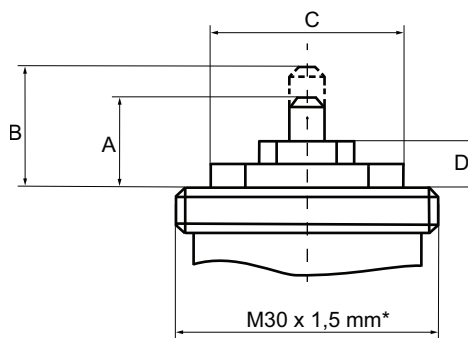


Fig. 1 A = min. 9.0 mm; B = max 17.5 mm; C = max Ø 20.5 mm; D = max 9.0 mm, * Adapters in range M28 x 1.5 mm to M30 x 1.5 mm are available. Contact Regin for more information.

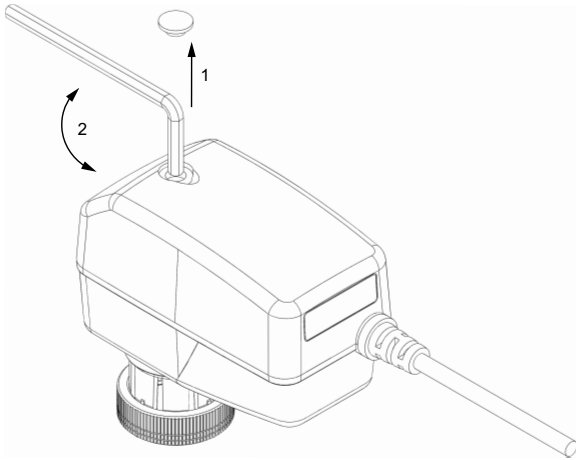
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RVAZ2

Manual override

The actuator can be operated manually. By removing the rubber seal on the top (1), and turning the Allen key clockwise or counterclockwise (2), the stem is either extended or retracted.



DIP-switches (only RVAZ2-24A)

Model RVAZ-24A has six DIP-switches for setting different functions. The actuator is delivered with factory setting as shown in the table below. All switches are set to "Off", except switch 1. The adjusted settings will be valid only after next power-on.

Off	On		Off	On	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	1	Actuator stem retract to close	Actuator stem extend to close
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	2	Flow: Equal percentage	Flow: Linear
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	3	Direct action	Reverse action
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	4	0...10 V input	2...10 V input
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	5	Plug: Linear	Plug: Equal percentage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	6	Input: V DC	Input: 0...20 mA / 4...20 mA

SW1 Operational direction of the valve

Off: The valve is closed when the valve stem is in its highest position.

On: The valve is closed when the valve stem is in its lowest position.

SW2 Desired effective characteristic

Off: Effective equal percentage flow characteristics

On: Effective linear flow characteristics.

SW3 Reverse/Direct operation

Off: Direct operation. The actuator opens the valve on increasing control signal.

On: Reverse operation. The actuator closes the valve on increasing control signal.

SW4 Control signal

Off: 0...10 V DC

On: 2...10 V DC

SW5 Valve flow characteristic

Off: Linear.

On: Equal percentage.

SW6 Control signal, type

Off: Voltage 0 (2)-10 V

On: Current 0 (4)-20mA

LED indication

The actuator has two LED lights with indications, according to the table below.

Green LED fixed light	Actuator moving, under operation
Green LED quick flash	Stroke adaption
Green LED slow flash (Flash twice + Off 2 sec.)	0% position
Green LED slow flash (Flash twice + On 1 sec. + Off 1 sec.)	100% position
Red LED lights	End of SWs fault / more than 2 faults
Red LED quick flash	One of End SWs fault
Red LED slow flash (Flash once + Off 2 sec.)	Settings changed during operation (only RVAZ2-24A)
Red LED slow flash (Flash twice + Off 2 sec.)	Auto stroke adapt fault

Technical data

Stroke	1-8.5 mm
Running time	5.5 s / mm
Force	200 N
Visual position indicator	LED
Status and diagnostic indicator	LED
Manual override	By 4 mm Allen key
Ambient temperature	0...50 °C
Ambient humidity	95 % RH, non-condensing
Dimensions (W x H x L)	50 x 88 x 93 mm
Protection class	IP54
Cable length	1.5 m (halogen free)



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

Models

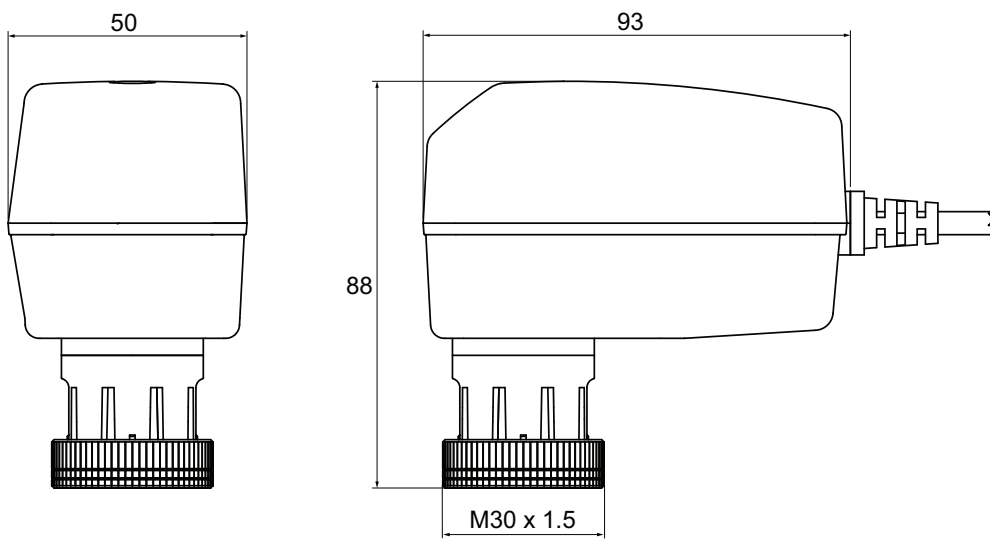
Article	Control signal	Supply voltage	Power consumption
RVAZ2-24A	0(2)...10 V / (0)4...20 mA	24 V AC/DC +/- 15%	2 W / 6 VA
RVAZ2-24	2– point/3-point, 3-wire	24 V AC/DC +/- 15%	2 W / 6 VA
RVAZ2-230	2– point/3-point, 3-wire	230 V AC/DC +/- 15%	6 W / 5 VA

Accessories

Article	Description
VA748X	Adapter for pressure independent control valves PCTVS/PCMTV DN15-35, stroke 2.7 mm/6 mm
29214112001	Adapter for valves CTV/RTV/FVR

For VTTV/VTTR/VTTB valves no adapters are needed.

Dimensions



[mm]

Wiring

RVAZ2-24A, 24 V AC/DC

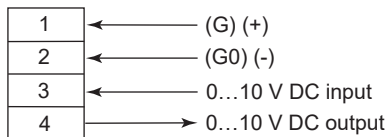


Fig. 2 1 = Black; 2 = White; 3 = Red; 4 = Green

RVAZ2-24, 24 V AC/DC



Fig. 3 Left = 3-point; Right = 2-point; 1 = Black; 2 = White; 3 = Red; A = Actuator stem extend; B = Actuator stem retract

RVAZ2-230, 230 V AC



Fig. 4 Left = 3-point, Right = 2-point; 1 = Black; 2 = White; 3 = Red; A = Actuator stem extend; B = Actuator stem retract

Documentation

All documentation can be downloaded from www.regincontrols.com.