RTA(O)M100

Thermal actuator 100 N

Thermal actuators with position indication for control of valves in heating or cooling systems. The actuator can be used to control radiator circuits, solar heating systems, heating or cooling coils, floor heating, etc. The VA54 adapter is included upon delivery.

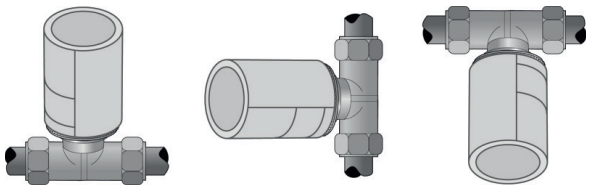
- ✓ Protection class IP54
- ✓ Stroke 4 mm
- ✓ 100 % protection against leaky valves
- ✓ Noiseless and maintenance-free
- ✓ Available in normally closed (NC) or normally open (NO) models
- ✓ Power consumption 1 W
- ✓ Modern and compact design

Function

The actuator uses a PTC resistor-heated elastic element and a compression spring. When the supply voltage is switched on, the wax element is heated, moving the integrated piston. The force generated by the movement is transferred to the valve stem, opening and closing the valve.

Installation

The actuator connects to the valve using an adapter with a snap-on connection. The actuator can be mounted vertically or horizontally. Upside down mounting is also possible but might reduce the life of the actuator.



Initiation

Normally closed (NC) type actuators are delivered with the actuator fixed in an open position. This means hydraulic circuits can be filled and vented with the actuator mounted. The valve will remain open until the actuator has been activated for more than 6 minutes and the power supply interrupted.

Adjustment to valves of other brands

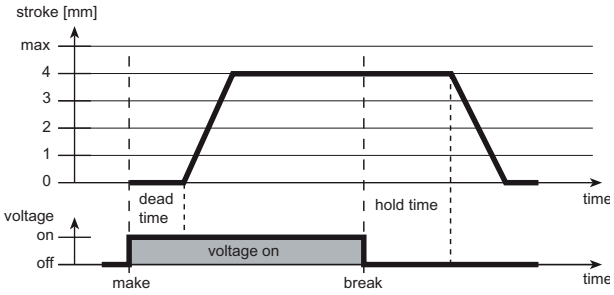
The actuator can be adjusted to almost any brand of valve by simply connecting the actuator to a snap-on adapter. A model overview is available in the adapter model table on page 3. The actuator uses a patented solution which offers 100 % protection against leaking valves, ensuring a long lifespan.

HEAD OFFICE SWEDEN
Phone: +46 31 720 02 00
Web: www.regincontrols.com
E-Mail: info@regincontrols.com

Normally closed (NC) models

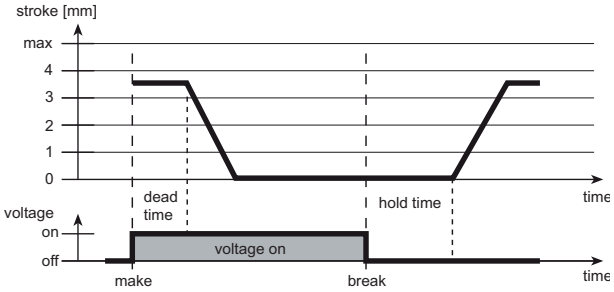
Once the supply voltage is applied and the dead time has expired, the valve will open* as the actuator stem retracts inwards. Once the supply voltage is cut and the hold time has expired, the wax element will cool and the valve will close* through the closing force of the compression spring and actuator stem extending outward. The closing force of the compression spring keeps the valve normally closed.

** This applies to valves that close when the stem is pushed down.*



Normally open (NO) models

For normally open actuator models, the actuator will function in the opposite way to normally closed models.



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Technical data

Ambient temperature	0…60 °C
Storage temperature	-25…+65 °C
Protection class	IP54
Installation	Snap-on
Cable length	2 m
Weight	100 g (24 V AC/DC, 230 V AC), 111 g (24 V AC)

Models

Article	Supply voltage	Control signal	Stroke time	Power consumption	Force	Stroke
RTAM100-24	24 V AC/DC	On/off, NC	3.5 min	1 W. Max. inrush current < 300 mA during max. 2 min.	100 N	4 mm
RTAOM100-24	24 V AC/DC	On/off, NO	3.5 min	1 W. Max. inrush current < 300 mA during max. 2 min.	100 N	4 mm
RTAOM100-24A	24 V AC	0...10 V DC, NO	30 s/mm	1 W. Max. inrush current < 300 mA during max. 2 min.	100 N	4 mm
RTAM100-24A	24 V AC	0...10 V DC, NC	30 s/mm	1 W. Max. inrush current < 300 mA during max. 2 min.	100 N	4 mm
RTAM100-230	230 V AC	On/off, NC	3.5 min	1 W. Max. inrush current < 550 mA during max. 100 ms.	100 N	4 mm
RTAOM100-230	230 V AC	On/off, NO	3.5 min	1 W. Max. inrush current < 550 mA during max. 100 ms.	100 N	4 mm

Accessories

Article	Description
RTA-CASE	Adapter case containing an assortment of adapters for testing on site

Adapters for adjustment of RTA(O)M100... to other brands of valves

Brand	Type	Thread	Colour
Siemens / Oventrop	VA10	M30 x 1.5	Light grey
TA	VA32	M28 x 1.5	Green
Oventrop	VA39	M30 x 1.5	White
Cazzaniga	VA44H	M32 x 1.5	Grey
Honeywell	VA50	M30 x 1.5	Dark grey
MMA	VA54	M28 x 1.5	Dark blue
Danfoss RAV/L	VA59	M30 x 1.5	Light grey
Pettinaroli	VA64	M28 x 1.5	Grey
Danfoss RAV	VA72	M30 x 1.5	Light grey
Danfoss RA	VA78	M30 x 1.5	White
TA / Heimeier	VA80	M30 x 1.5	White/grey

CE

Low Voltage Directive (LVD) standards: This product conforms to the requirements of the European Low Voltage Directive (LVD) 2014/35/EU through product standards EN 60730-1 and EN 60730-2-14.

EMC emissions & immunity standards: This product conforms to the requirements of the EMC Directive 2014/30/EU through the product standards EN 60730-1 and EN 60730-2-14.

RoHS: This product conforms to the Directive 2011/65/EU of the European Parliament and of the Council.

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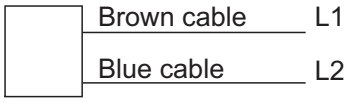
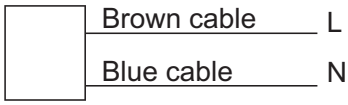
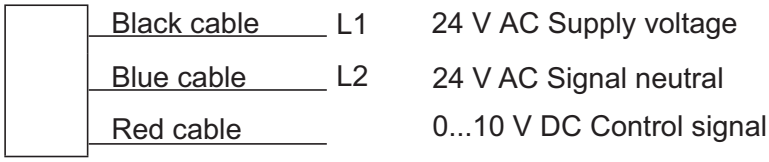
Wiring



On/off models 24 V AC/DC

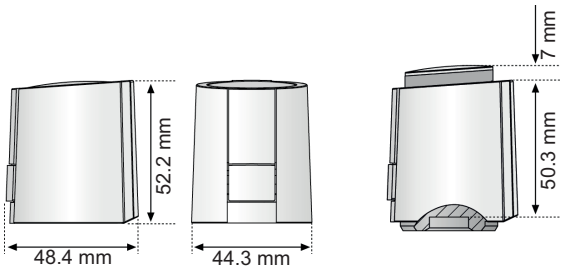


On/off models 230 V AC

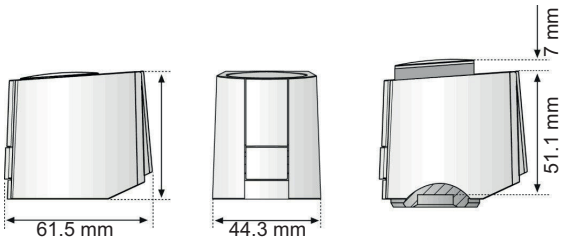


0...10 V models

Dimensions



On/off models



0...10 V models

Product documentation

Document	Description
Instruction RTA(O)M100-24	Instruction for installation of RTA(O)M100-24
Instruction RTA(O)M100-24A	Instruction for installation of RTA(O)M100-24A
Instruction RTA(O)M100-230	Instruction for installation of RTA(O)M100-230
Product sheet VTTV/VTTR/VTTB	Product sheet for VTTV/VTTR/VTTB
Product sheet RTV	Product sheet for RTV
Product sheet VHR	Product sheet for VHR
Product sheet CTV	Product sheet for CTV
Product sheet PCTV/PCMTV/PCTVS15-25	Product sheet for PCTV/PCMTV/PCTVS15-25

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