Actuators for radiant panel distribution manifold

MVR

CE

Models	Control signal	Auxiliary microswitch	A stem output range
MVR230	110÷230 V	--	10,7 ÷ 11,8
MVR230M		YES	
MVR24	24 V	--	
MVR24M		YES	
MVR230C1	110÷230 V	--	12,3 ÷ 13,4
MVR230MC1		YES	
MVR24C1	24 V	--	
MVR24MC1		YES	
MVR230C2	110÷230 V	--	11,3 ÷ 12,4
MVR230MC2		YES	
MVR24C2	24 V	--	
MVR24MC2		YES	
MVR230C3	110÷230 V	--	10,3 ÷ 11,4
MVR230MC3		YES	
MVR24C3	24 V	--	
MVR24MC3		YES	

APPLICATION AND USE

MVR actuators are designed for mounting on manifolds for floor, ceiling and wall radiant panels on heating or air conditioning plants.

OPERATION

MVR actuators are of electro-thermal type and are controlled by an on-off signal or, 24 Vac models only, also by pulse width modulation.

Actuators are powered by the control signal; this causes the heating of a thermostatic element. Consequently a small piston comes out and, opposing to return spring, lowers the valve stem.

MVR...M models are equipped with an auxiliary microswitch. The microswitch has the contact closed when the actuator is unpowered.

TECHNICAL CHARACTERISTICS

Power supply:

MVR230...	110...230 V~ ± 10%
MVR24...	24 V~ ± 10%

Consumption:

	MVR230… 24 vac	MVR230… 110 Vac	MVR24… 24 Vac
Starting	50 VA	12 VA	4 VA
Working	1,8 VA		

Aux microswitch	0,7 A 250 V ~
(only for arranged models - see model table)	
Frequency	50/60 Hz
Cold start time	1' (power-up to 1st stem mov.)

Stroke	4 mm.
Force	90 N
Temperature	
- operation	2T50
- storage	-10T60
Protection class	II (CEI 107-10)
Cable	Length 65 cm section 0,35 mm^2
Protection degree	IP43 (for vertical mounting) For environments with normal pollution according to IEC 730-1 (93)/6.5.3

Product conforms for CE marking to the following directives:
EMC 2004/108/CE according to the EN61326-1 standard.
LVD 2006/95/CE according to the EN 61010-1 standard for the 110-230 V powered products.

MANUFACTURING CHARACTERISTICS

MVR are composed of UL94 V0 flammability thermoplastic material. All models are equipped with power supply cable.

Inside the actuator there is a thermostatic element heated by a PTC thermistor.

Actuators are equipped with a threaded M30x1.5 ring nut, located on the lower part, which allows an easy valve assembling. For coupling quota, see Dimensions (page 2).

All models are equipped with a stroke indicator having different colours (see table on page 2) to use according to the stem output.

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ISO 9001

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SAFETY PRESCRIPTIONS

230 V products

1) Install on the power supply line a protecting device to avoid short circuits (fuse or magneto-thermic) according to the specifications in force.

2) In case of accidental removal of the cover to make sure that power is disconnected before working on the actuator or near it.

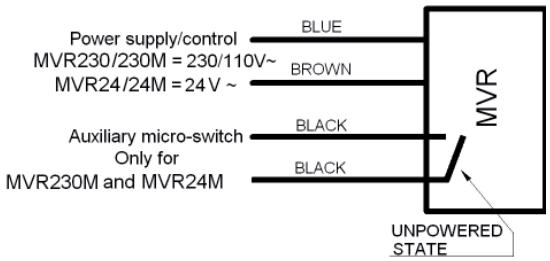
3) The products are maintenance free.

INSTALLATION

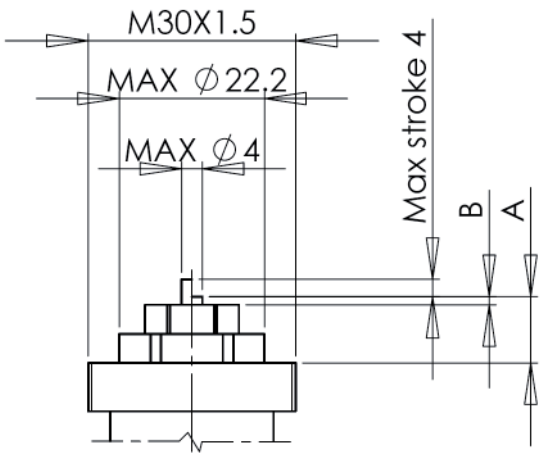
- To lower the stem push the actuator on the collector

- Screw the ring nut onto the collector thread, placing the actuator as required.

- Connect the cable (see figure below) according to the controller wiring diagrams.

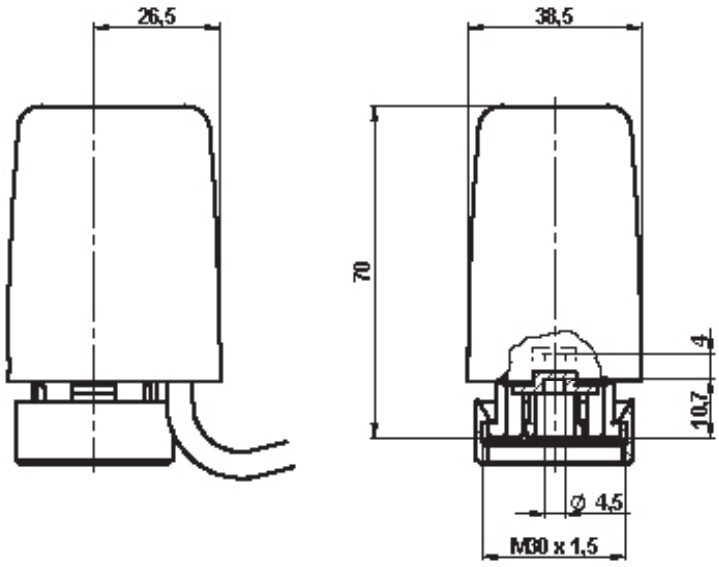


ALLOWED STEM OUTPUT VALUES



Actuator part numbers	Microswitch terminals	Stroke pointer	A	B
MVR230 MVR230M MVR24 MVR24M	1-2	NEUTRAL	10,7 ÷ 11,8	1,4
MVR230C1 MVR230MC1 MVR24C1 MVR24MC1	1-2	YELLOW	12,3 ÷ 13,4	3
MVR230C2 MVR230MC2 MVR24C2 MVR24MC2	1-2	GREEN	11,3 ÷ 12,4	2
MVR230C3 MVR230MC3 MVR24C3 MVR24MC3	1-2	BLUE	10,3 ÷ 11,4	1

DIMENSIONS (mm)



The performances stated in this sheet can be modified without any prior notice due to design improvements