

MODELS	CONTROL SIGNAL	AUXILIARY MICROSWITCH	A STEM OUTPUT RANGE
MVR230	110÷230Vac	--	10,7 ÷ 11,8
MVR230M		YES	
MVR24	24Vac	--	
MVR24M		YES	
MVR230C1	110÷230Vac	--	12,3 ÷ 13,4
MVR230MC1		YES	
MVR24C1	24Vac	--	
MVR24MC1		YES	
MVR230C2	110÷230Vac	--	11,3 ÷ 12,4
MVR230MC2		YES	
MVR24C2	24Vac	--	
MVR24MC2		YES	
MVR230C3	110÷230Vac	--	10,3 ÷ 11,4
MVR230MC3		YES	
MVR24C3	24Vac	--	
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. MVR24C2 and MVR230C2 models are used with CONTROLLI PICVs LIBRA series.

OPERATION

MVR actuators are of electro-thermal type and are controlled by an on-off signal or, 24Vac 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...	110-230Vac ± 10%
MVR24...	24Vac ± 10%

Controlli S.p.A.
16010 Sant'Olcese (GE)
Tel. 010 73 06 1
Fax. 010 73 06 870/871
www.controlli.eu

Consumption

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

Aux. microswitch capability 0,7A 250Vac (Just for fitted model - look at the table)
50/60Hz

Frequency
Cold start time (20 °C room temperature) 1' (from start up to 1st stem movement)

Stroke 4mm

Force 90N

Temperature
• operation 2T50°C
• storage -10T60°C

Protection class II (CEI 107-10)

Connection cable lenght 65 cm section 0,35mm²

Protection degree IP43 (vertical mounting). For environment 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 EN61010-1 standard for the 110-230 V powered products.

MANUFACTURING CHARACTERISTICS

MVR actuators are made of V0 self-extinguishing thermoplastic material.

All models are equipped with a power cord.

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

The actuators are equipped, at the bottom, with a M30x1,5 threaded ring nut that allows easy coupling to the valves and manifolds.

For the mating dimensions, see the overall dimensions.

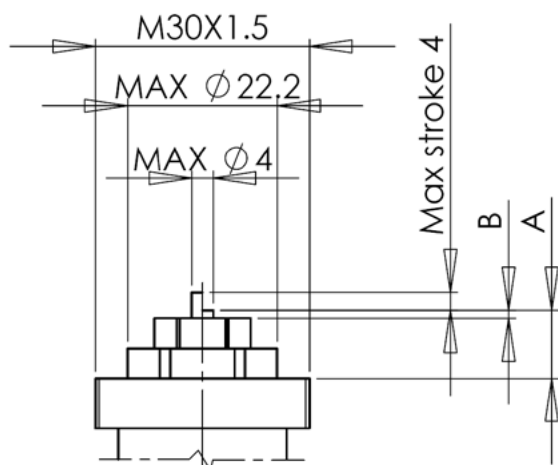
The various models are equipped with a travel indicator of different colors (see table) to be used depending on the rod output.

SAFETY PRESCRIPTIONS

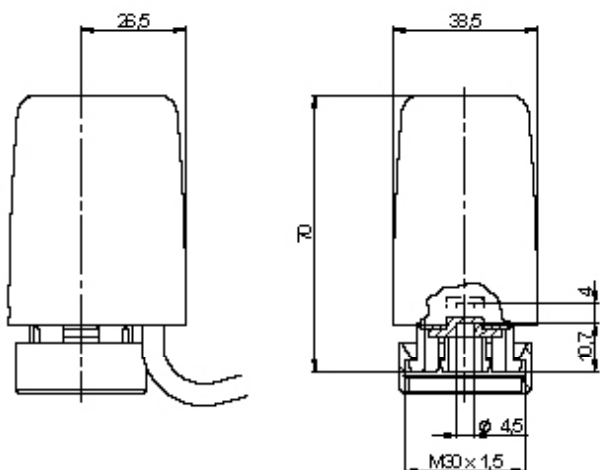
230V products:

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. products are maintenance free.

ALLOWED STEM OUTPUTS VALUES

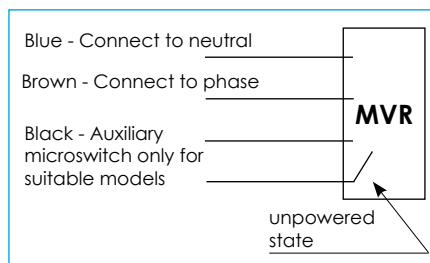


OVERALL DIMENSIONS [mm]



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.



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

The performances stated in this sheet can be modified without any prior notice