

Actuators for distribution manifolds and zone valves

MCA®
Patented



Models	Control signal	Auxiliary microswitch	Force	Stroke
MCA230	110÷230Vac	--	90N	3mm
MCA230M		•		
MCA24	24Vac/dc	--		
MCA24M		•		
MCA230L	110÷230Vac	--	140N	4mm
MCA230LM		•		
MCA24L	24Vac/dc	--		
MCA24LM		•		



APPLICATION AND USE

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

MCA® can be used for On/Off (2-wire) control system in heating, air-conditioning and ventilation systems and for distribution manifolds for individual room temperature control of radiant heating & cooling systems.

Where required, auxiliary microswitches are normally open type. In case you need to operate with a normally closed micro-switch, please contact our Technical Dept.

Thanks to the innovative adaptive feature, this actuator is almost universal and suitable to the majority of zone valves and manifolds in the market.

The integrated auxiliary switch allows direct or indirect (with relay) operation of a pump or a fan control unit.

OPERATION

MCA® actuators are based on electro-thermal technology to be controlled by on-off signals or by pulse width modulation PWM signals (24Vac models only).

These actuators use a PTC resistor heated wax element and a compression spring to provide the close-off force.

When powered MCA® opens a normally open valve retracting the internal piston in contact with the spindle.

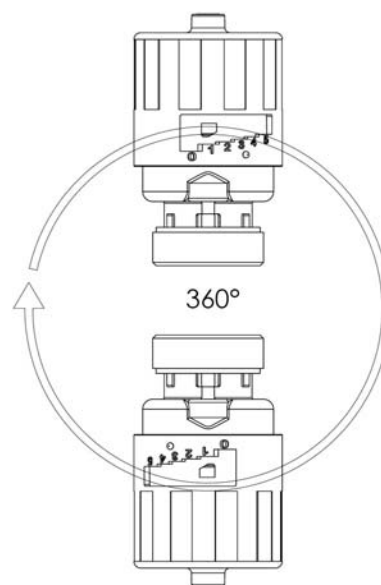
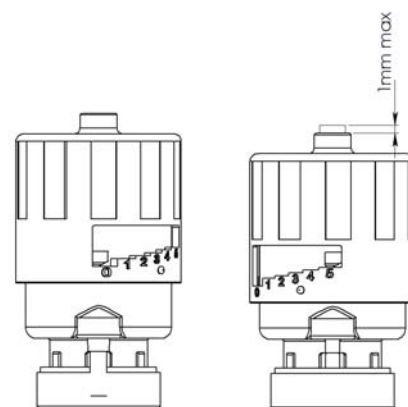
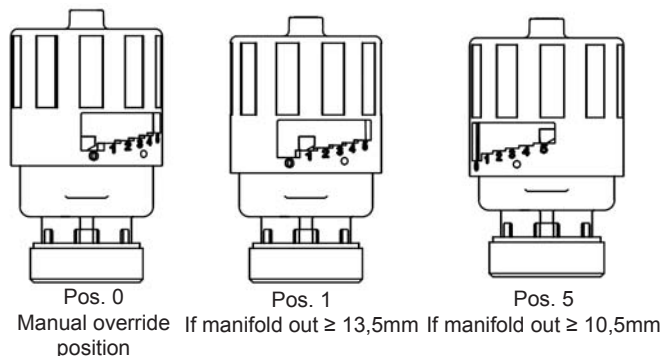
MCA...M models are equipped with an auxiliary micro-switch. The micro-switch contact is closed when the actuator is powered.

INSTALLATION

MCA® can be adapted to many valves and manifolds by pushing and rotating the cover into 3 different positions thus adapting the actuator unpowered position to the valve/manifold closed position.

A manual override position is also available to open the valve/manifold without powering the actuator.

Selection of different positions according to specific valve/manifold type is easily achieved by installing the actuator in the Manual Override Position and by pushing & rotating into Position 1 or 2 .. 5 until the Function Indicator Pin on the top of the cover pops out. MCA® actuator can be mounted in any position.



TECHNICAL CHARACTERISTICS

Power supply:
 MCA230... 110...230 Vac ± 10%
 MCA24... 24 Vac/dc ± 10%
 Consumption:

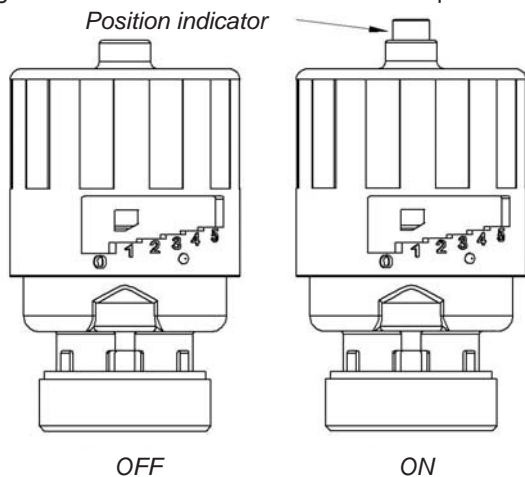
	MCA230... 230Vac	MCA230... 110Vac	MCA24... 24Vac
Starting	50VA	12VA	4VA
Working	1,8VA		

Aux microswitch 0,7 A 250 V ~ (only for arranged models - see model table)
 Frequency 50/60 Hz
 Cold start time (20°C) 1' (power-up to 1st stem mov.)
 Stroke see table
 Force see table
 Temperature
 - operation 2T50
 - storage -10T60
 Protection class II (CEI 107-10)
 Cable Length 70 cm
 section 0,35 mm²
 Protection degree IP54 (in any mounting position)
 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

MCA® are made with self extinguishing V0 thermoplastic materials. Electrical Cable (0,70m) is supplied with all models and it is not removable. Actuators are equipped with a threaded M30x1.5 ring nut (Nickel Plated Brass) for an easy valve assembling. All models are equipped with a function indicator pin popping out from the cover when the actuator is powered.



The actuators complete the stroke when the pin exceeds the cover collar by 4mm.
 O-Ring guarantees IP54 protection with 360° installation position.

The products are maintenance free.

All components and material are ROHS compliant.

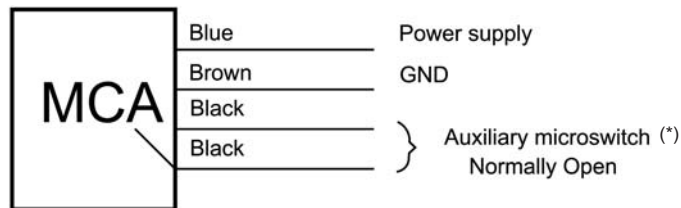
The performances stated in this sheet can be modified without any prior notice due to design improvements

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.

ELECTRIC CONNECTIONS



(*) If required

DIMENSIONS (mm)

