

Actuators for distribution manifolds, zone valves and PICVs

MODELS	POWER SUPPLY	AUXILIARY MICROSWITCH	FORCE	STROKE
MCA230L	110÷230 Vac	No	140 N	4 mm
MCA230LM		Yes		
MCA24L	24 Vac/dc	No		
MCA24LM		Yes		



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 models can also be used with LIBRA pressure independent valves and with Micra zone valves.

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.

If required, auxiliary microswitches are normally open type. In case you need to operate with a normally closed microswitch, please contact our Technical Dept.

Thanks to the innovative adaptive feature, this actuator is suitable to the majority of zone valves and manifolds on the market with stroke up to 4 mm.

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 (24 Vac 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 has completed its stroke.

TECHNICAL CHARACTERISTICS

DESCRIPTION	MCA230L(M)	MCA24L(M)
Power supply	110-230 Vac \pm 10%	24 Vac/dc \pm 10%
Consumption on start up	50 VA (230 Vac) 12 VA (110 Vac)	4 VA
Consumption during operation	1,8 VA	
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 1 st stem mov.)	
Stroke	4 mm	
Force	140 N	

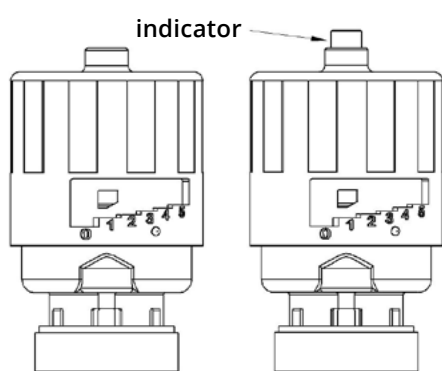
The performances stated in this sheet can be modified without any prior notice.

DESCRIPTION	MCA230L(M)	MCA24L(M)
Operation Temp.	2÷50°C	
Storage Temp.	-10÷60°C	
Protection class	II (CEI 107-10)	
Cable	length 70 cm; section 0,35 mm ²	
Protection degree	IP54 (in any mounting position); For environments with normal pollution according to IEC 730-1 (93)/6.5.3	
CE directives	EMC 2014/30/UE according to the EN61326-1:2013 standard and LVD 2014/35/UE according to the EN 61010-1 standard for the 110-230 V powered products	

* The auxiliary microswitch can be used to switch off the pump. If the inrush currents of the pump exceed the contact capacity of 0.7 A, an external relay must be used.

MANUFACTURING CHARACTERISTICS

MCA are made with self extinguishing V0 thermoplastic materials. Electrical Cable (0,70 m) 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.

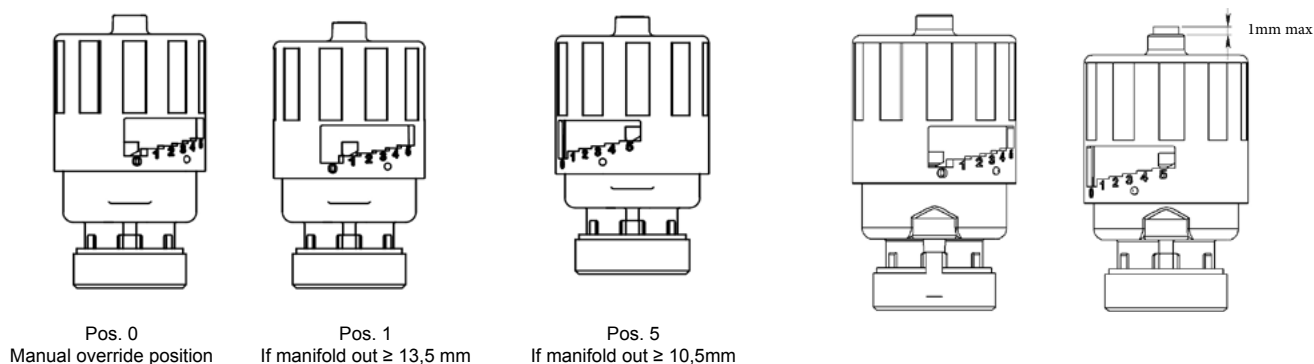
All components and material are ROHS compliant.

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.



OPTIONS

PS107 Actuator with M28x1,5 modified ring nut. For ordering add suffix PS107 to standard codes.

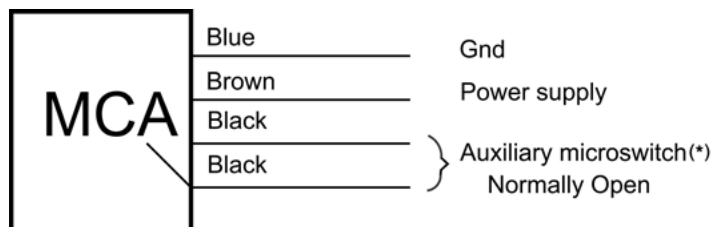
Models without auxiliary contact are available with cable 2 m - **MCA230L-2** and **MCA24L-2**.

SAFETY PERSCRIPTIONS

230V products

- Install on the power supply line a protecting device to avoid short circuits (fuse or magneto-thermic) according to the specifications in force.
- In case of accidental removal of the cover to make sure that power is disconnected before working on the actuator or near it.
- The products are maintenance free.

ELECTRIC CONNECTIONS



(*) If required

DIMENSIONS [mm]

