

## Ball Valves Actuators

MODEL	TORQUE [Nm]	OPENING/CLOSING TIME	POWER SUPPLY	CONTROL	IP GRADE
MVS210	10	40 s	230 V AC	2 p	42
MVS410	10	40 s	24 V AC	2 p	42



### APPLICATION AND USE

The actuator MVSx16 is used on ball valve installed on the heating or conditioning systems for hot or cool water.

### TECHNICAL CHARACTERISTICS

DESCRIPTION	MVSx10
Power supply	230 V AC (MVS210) 24 V AC (MVS410)
Anti-condensation resistance	Yes (only on/off - open position)*
Unlock position	No
Rotation angle	90°
Stroke time (90°)	40 s
Torque	10 Nm
Temp. on work	-5°C to 50°C
Stock temperature	-20°C to 70°C
Max. humidity	95%
IP grade	IP42
Certification	CE
Dimension	111x55x68 mm
Control	On-off
Micro aux	Max. 6 (1) A 230 V
Insulation class	II
Electric motor	Bidirectional
Gear	Plastic/steel sintered
Valve	1/2" to 1"1/4 - 2/3 way (M/F)
Cable	5 pole H05 800 mm crimped
Cover material	Nylon light gray
Weight	0.30 kg

\* The anti-condensation resistance is active only on the 230 V model when there is a control signal on the black wire (open valve position).

POWER CONSUMPTION [VA]			
MODEL	RUNNING	CLOSING POSITION	OPENING POSITION
MVS210	~4	0	~1
MVS410	~4	0	0,5

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

## OPERATION

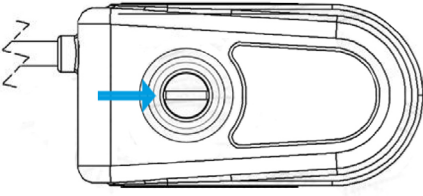
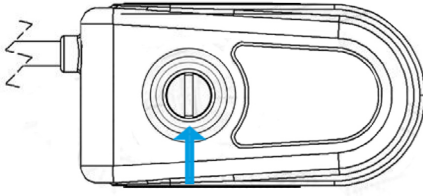
**The actuators are without spring return.** At the decrease of the ambient temperature the controller with on-off output closes the control contact of the actuator by opening the valve. When it reaches the required temperature, the controller open the contact, closing the valve.

The end of stroke contact closes at fully open valve and opens as soon as the valve starts closing.

### End of stroke contact:

Close = open valve

Open = close valve

ACTUATOR	CONTROL	
	ON*	OFF
MVS210 MVS410		

\* Factory position without power supply.

## POSSIBLE CONNECTIONS AND MATCHES

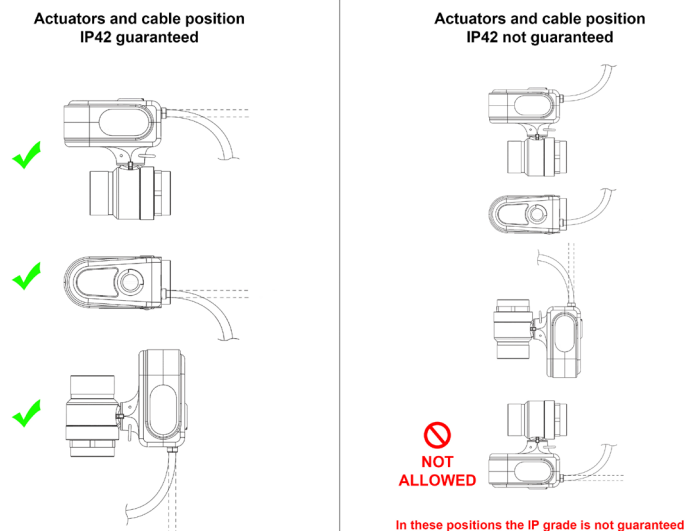
ACTUATORS	BALL VALVES	
MVS210 MVS410	2-way	VSS2 VSS3 VSS4 VSS5
	3-way	VSD3 VSD4

## MANUFACTURING CHARACTERISTICS

The housing is in plastic. In the upper part there is a position reference of the valve. It is complete with a 5 wires connection cable (standard length 80 cm), with PG11 cable gland and auxiliary limit contact.

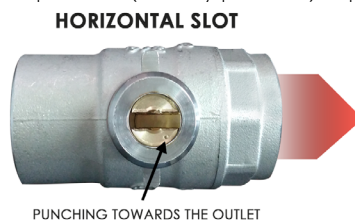
## ASSEMBLING

Any mounting position is allowed except the one with the actuator facing down.



To assemble the MVSx10 actuator on the valve:

- Set the valves with the slot in horizontal position (factory position). A punching on the stem indicates the outlet direction.



- Verify that the indicator on the actuator is in horizontal position (factory position).
- Couple the valve with the actuator and insert the safety pin.

### ATTENTION

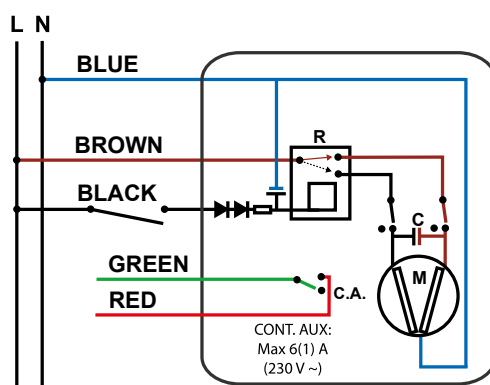
For **2-way valves**, by supplying the actuator without control signal, the valve move to the closed position. The actuator indicator will go in vertical position.

For **3-way valves**, by supplying the actuator without control signal, the valve move to the open position of the A and B ways. The actuator indicator will go in vertical position.

### ELECTRIC CONNECTIONS

The actuators must be electrically connected in accordance with local regulations and with the connection diagrams.

#### Connection Diagram 3 Micro with Relè



### DIMENSIONS [mm]

