



MODEL	TORQUE [Nm]	OPENING/ CLOSING TIME	POWER SUPPLY	COMMAND	IP GRADE
MVS216	16	60 s	230 Vac	2p	IP65
MVS416	16	60 s	24 Vac	2p	IP65
MVS516	16	60 s	24 Vac	0..10 V	IP65



APPLICATION AND USE

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

For control applications with ball valves modulating of VSC-VDC series is available a version of MVS with proportional command 0..10 V.

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

For the MVS516 version with proportional control 0..10 V the valve position can be adjusted seamlessly from completely closed valve (command 0 V) to fully open valve (10 V command) depending on the control requirements.

POSSIBLE CONNECTIONS AND MATCHES

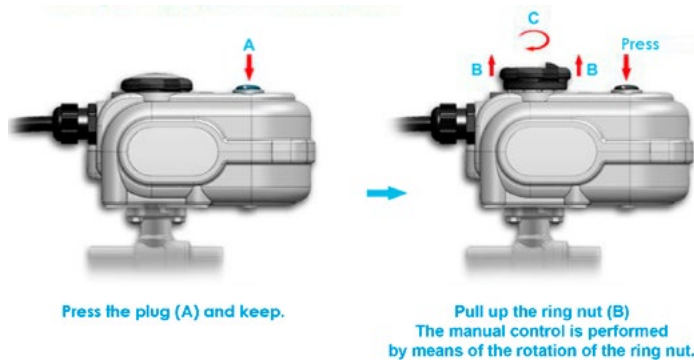
ACTUATORS	BALL VALVES	
MVS216 MVS416	2 way	VSS6, VSS7
	3 way diverting	VSD5, VSD6, VSD8
MVS216 MVS416 MVS516	2 way modulating	VSC2, VSC3, VSC4, VSC5, VSC6, VSC8
	3 way modulating	VDC2, VDC3, VDC4, VDC5, VDC6, VDC8

They are supplied with two coupling flanges for connections ISO 5211 F03/F05 or F04 to be used depending on the valve that is intended to motorize.

FLANGES	BALL VALVES
 <p>F03 F05</p>	<p>series VSS 1 1/2" - 2" series VSD 1 1/4" - 2"</p>
 <p>F04</p>	<p>series VSC series VDC</p>

MANUFACTURING CHARACTERISTICS

The housing is in plastic with manual control for opening the valve in case of lack of power supply.



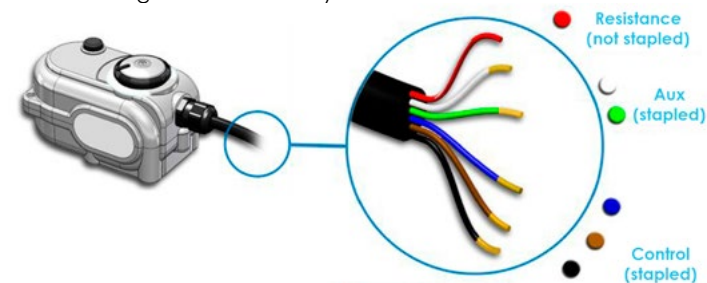
The lowered ring allows the reduction of the overall dimensions of the actuator. Once extracted facilitates the rotation thanks to a larger area of grip.

Handle for manual control state of opening/closing, with LED indication.



The shape of the housing is designed to allow a rate of protection IP65.

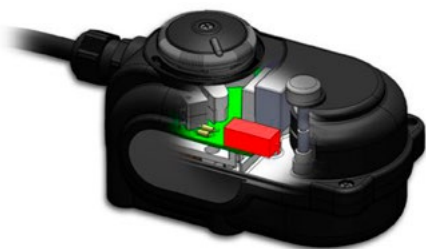
It is complete with a 6 wires connection cable (5 + Resistance), with PG11 cable gland and auxiliary limit contact.



WHITE-GREEN-BLUE-BROWN-BLACK = control and auxiliary cables
RED = cable resistance

Condensation heater

The anti-condensate resistance if connected is always active, both with open or close valve.



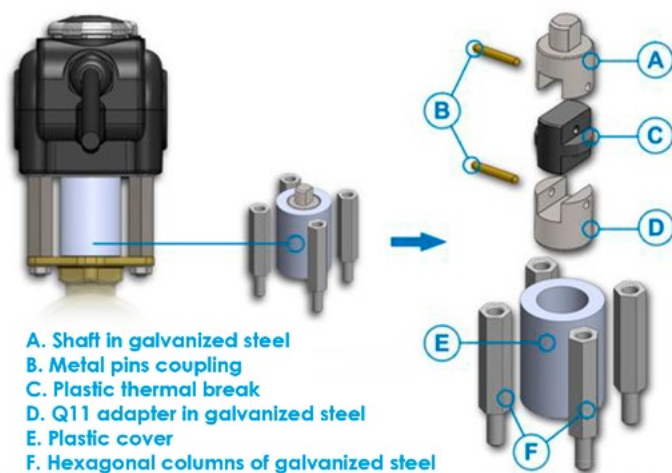
Use:

- ambient temperature <math>< 10^{\circ}</math>
- In addition to the thermal spacer with ambient temperature $30^{\circ}\text{C} \div 45^{\circ}\text{C}$ and the fluid temperature $< 15^{\circ}\text{C}$ (cool water).

We recommend the use of ambient temperature heating applications next to the limit.

ACCESSORIES

It is available a spacer for use in case of cool water to allow a smoother insulation or in case of hot water with temperature higher than 120°C .



TECHNICAL CHARACTERISTICS

Power supply:	230Vac (MVS216)
	24Vac (MVS416 e MVS516)
Torque:	16 Nm
Temp. on work:	$-5^{\circ}\text{C} \div 50^{\circ}\text{C}$
Stock temp.	$-10^{\circ}\text{C} \div 80^{\circ}\text{C}$
Max umidity:	95%
IP grade:	IP65
Certification:	CE
Dimension:	135(156 with cable gland)x75x80 mm
Control:	0.. 10 V (MVS516)
	manual open/close with LED indicator (MVS416 and MVS216)
Feedback:	0.. 10 V (only MVS516)
Micro Aux:	230 Vac - 6 (1) A (only MVS416 and MVS216)
Insulation class:	II
Stroke time (open/close)	60 s
Flange:	ISO 5211 F03-F05 and ISO 5211 F04
Shaft:	Q11
Cable:	H05 6 poli x 0,75
Cable gland:	PG11 - IP68 ripstop
Weight:	0,90 Kg

ASSEMBLING

To couple the actuator to the valve is provided the flange in plastic material ISO 5211 F03 / F05 for a Q11 shaft and ISO 5211 F04 flange with adapter to Q9 shaft.



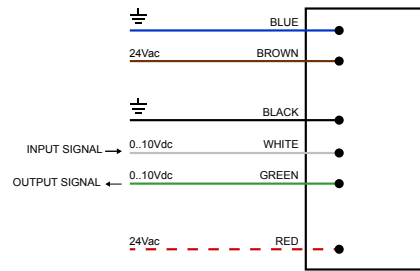
Any mounting position is allowed except the one with the actuator facing down.



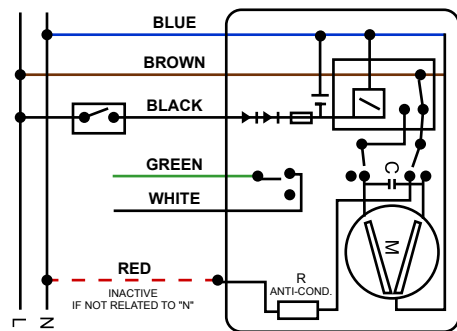
ELECTRIC CONNECTIONS

The actuators must be electrically connected in accordance with local regulations and with the connection diagrams. Regulations and requirements to ensure the safety of people and property must be observed at all times.

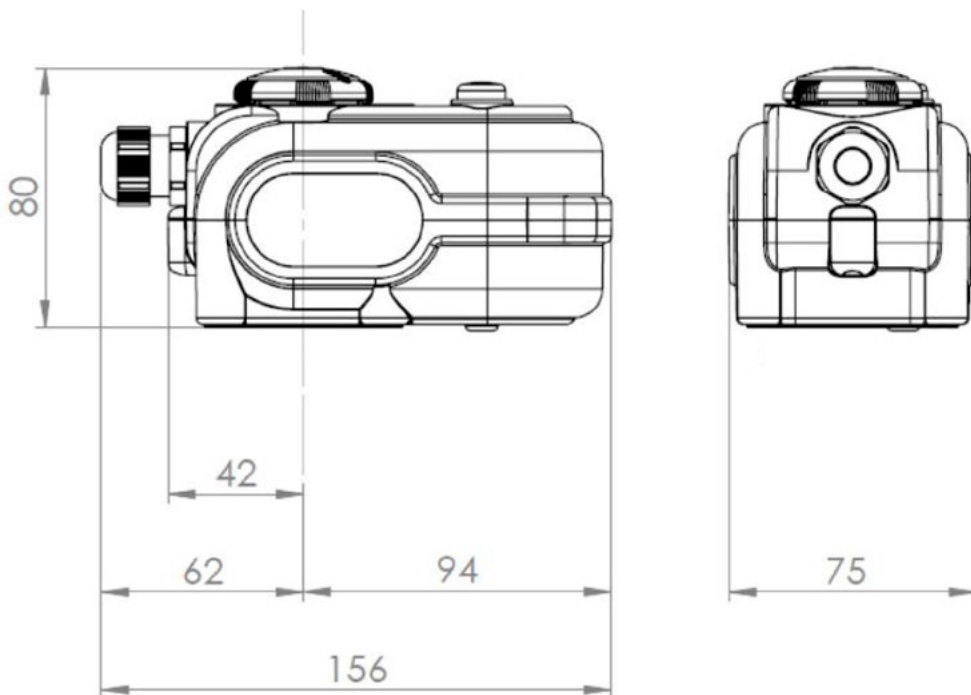
Modulating control 0..10 V 24 Vac (model MVS516)



ON-OFF control (model MVS216, MVS416)



DIMENSIONS [mm]



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