



DESCRIPTION

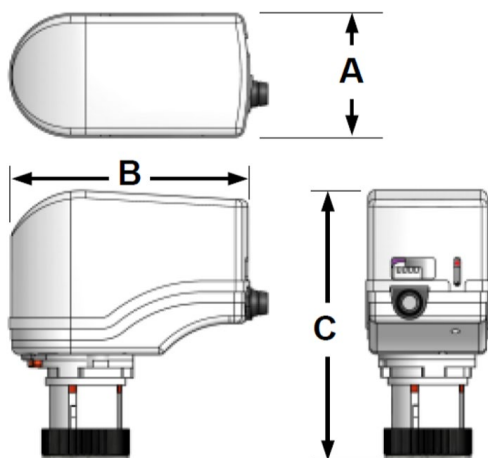
VM060

24V electromotive actuator proportional (0-10V) to drive Pressure Independent Control Valve **EvoPICV series 91, 92 and 93**.

With manual override, status LED indicator, valve stroke detection system and **failsafe return** system.

76TE adaptor for Fratelli Pettinaroli PICV included.

DIMENSIONS



A = 53
B = 107
C = 104

Dimensions in mm

APPROVALS



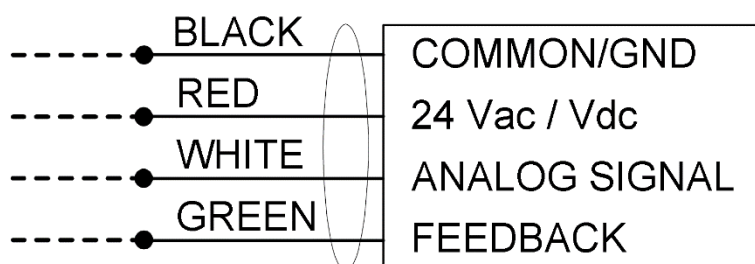
TECHNICAL FEATURES

Type	Proportional 0-10 V / 2-10 V	Storage temperature	-30° / + 50°C
Additional control signal	4-20 mA with external cable R=500 Ω	Ambient temperature	2° / 50°C
Supply voltage	24V ±10% AC/DC – 50/60 Hz	Medium temperature	2° / 120°C
Power consumption	10 VA peak, 6 VA	Relative humidity	5 – 95% non condensing
Stroke	Up to 6.5 mm, self-adjustable	Degree of protection	IP54 equivalent to NEMA 3R
Feedback	0-10 V / 2-10 V	Weight	0.4 kg
Torque	120 Nm	Cable	4 wires, 0.8 mm ² [18AWG]
Running time	18.5 s/mm – 120 s for 6.5 mm	Cable length	1 m
Fail safe running time	9.2 s/mm – 60 s for 6.5 mm	Direction	Reversible

Electromotive actuators **VM060 - 24V** are used to make proportional control systems, managed by BMS handling 0(2)-10 V voltage signal or 0(4)-20 mA current signal, of HVAC installations where **EvoPICV 91, 92 and 93** balancing valves are fitted.

For further information about electrical connections, see the specific section.

CONNECTION SCHEMES



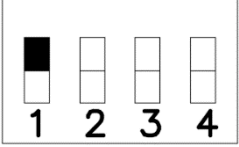
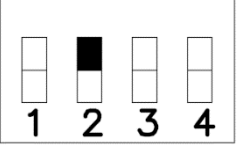
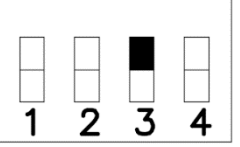
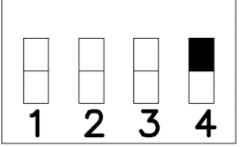
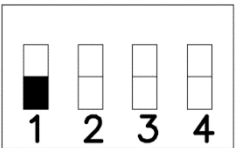
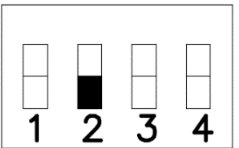
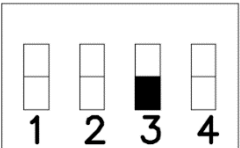
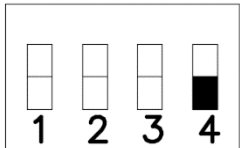
LED OF STATUS INDICATION



LED status

Normal: Flash 0.5 s ON / 10 s OFF
Error: Flash 0.2 s ON / 0.2 s OFF
Auto stroke: Continuous ON
Failsafe charge: Continuous ON
Failsafe operation: OFF

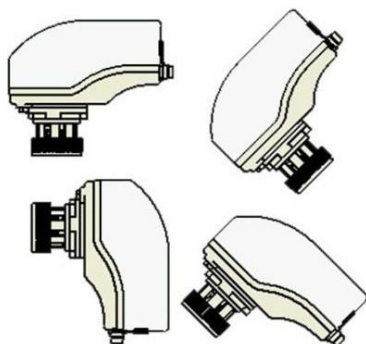
SETTINGS

DIP-Switch 1: <u>DIRECTION</u>	DIP-Switch 2: <u>ANTI-STICK</u>	DIP-Switch 3: <u>SIGNAL TYPE (CONTROL AND FEEDBACK)</u>	DIP-Switch 4: <u>FAIL SAFE DIRECTION</u>
OFF ON  OFF: EvoPICV valves normally open at 0 Vdc	OFF ON  OFF: deactivated	OFF ON  OFF: 2-10 V	OFF ON  OFF: EvoPICV valves normally open
OFF ON  ON: EvoPICV valves normally closed at 0 Vdc	OFF ON  ON: activated	OFF ON  ON: 0-10 V	OFF ON  ON: EvoPICV valves normally closed

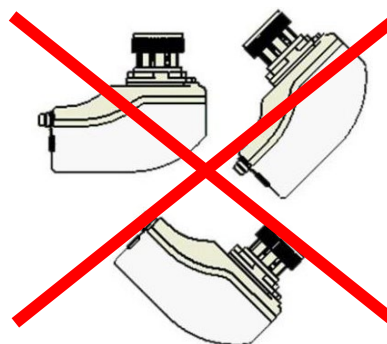
INSTALLATION

It is highly suggested to install **VM060** electromotive actuators in safe orientation that means potential leakage from the stem does not damage them. We recommend to provide sufficient clearance for potential service and replacement. Thus, any installation at more than 90° from horizontal must be avoided. A clearer overview is given by following pictures:

CORRECT



UNCORRECT



Assembly

ACTUATOR STEM



1. Put and tighten the **76TE** adaptor onto the valve and then the actuator stem (previously removed from actuator) and screwed by hand.
2. Rotetate clockwise the black knob for manual override (no forcing) to opn the valve
3. Manually set the knob to test the right loop operation
4. After the test, assembly the actuator by putting it on the stem and turn 30° clockwise till you hear a click

To disengage the actuator, press the relaese button while turning IT counter clockwse 30°. USE ONLY ADAPTOR AND STEM SUPPLIED WITH THE ACTUATOR. No insulation above the dotted red line.