

MOUNTING INSTRUCTIONS

1. INSTALLATION

The actuator can be mounted in any position for applications in which the fluid temperature is not higher than 120 °C, otherwise it should be mounted in horizontal position. It is necessary to leave 10 cm. above and beside it, so as to operate on the internal parts, on the terminal board for the electric connections and for assembling-disassembling operations.

2. VSB-VMB/VSBF-VMBF/VSBPM-VMBPM/VSBPMF-VMBPMF VALVES ASSEMBLY (Fig. 1)

- Pull and turn counter-clockwise the manual knob **1** until the joint reaches the upper mechanical stop.
- For VSB-VMB/VSBF-VMBF: Pull out the knob **1** and rotate clockwise (**max 1/4 turn**) until it enters the **first** rest position.
- For VMBPM-VSBPM/VMBPMF-VSBPMF: Pull out the knob **1** and rotate clockwise (**max 1/2 turn**) until it enters the **second** rest position.
- Make sure the plug reaches upper seat by lifting the valve stem.
- If a spacer for high temperatures is needed, insert the MVBHT accessory **4** onto the valve neck.
- Position the actuator on the valve interposing the ring nut **3** between the stem and the mounting bracket.
- Rotate the actuator until the bracket rests on the valve body.
- Tighten the ring nut **3** using the supplied spanner.
- Keeping the valve stem steady, force counter-clockwise the lower hexagonal part of joint **2** (which acts as a locknut) until it detaches.
- Then screw clockwise the part which has been detached so as to tighten it on the rest of the joint, thus blocking the valve stem.

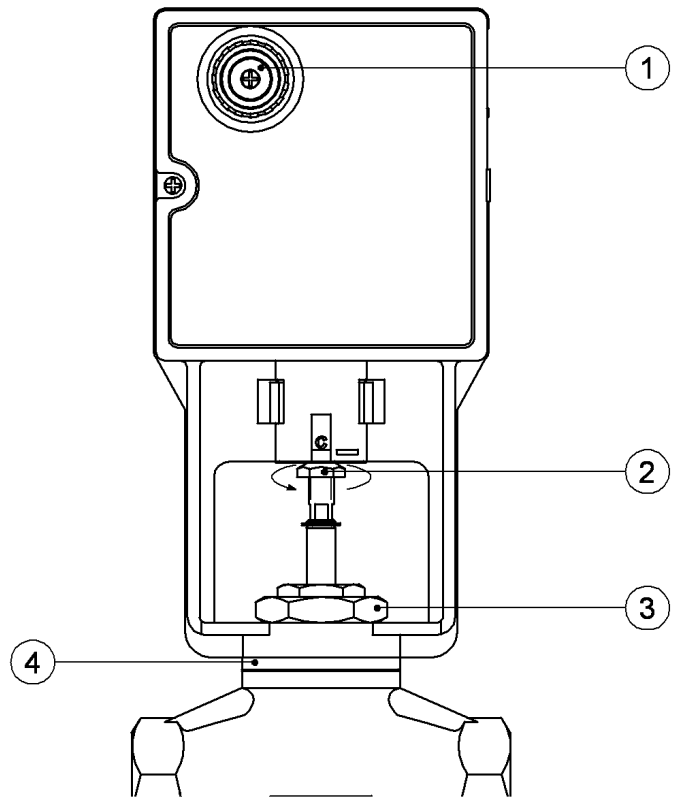
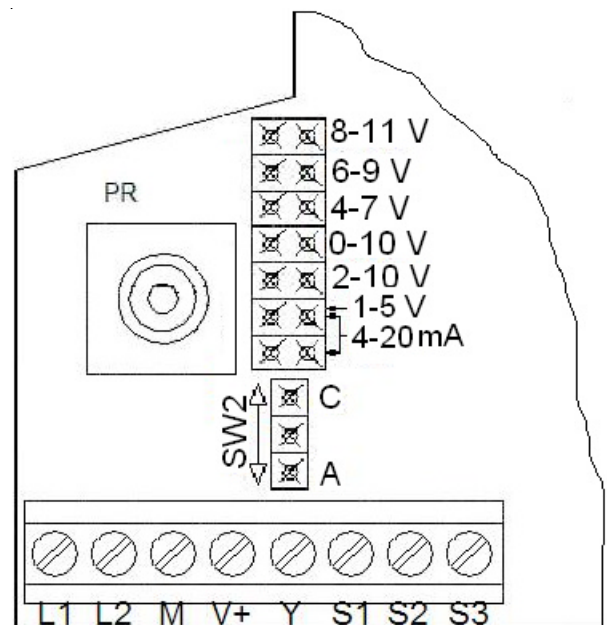


FIG. 1

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3. ACTUATOR STROKE CALIBRATION ONLY FOR STROKES DIFFERENT FROM 16.5 mm

- Remove the back cover (opposite the knob).
- For MVB52/56 only, make sure that jumper SW2 is in A position (Fig. 2).
- Supply the actuator between L1 and L2 terminals with Y terminal disconnected.
- Wait the actuator to reach the lower stroke end.
- Connect the positive of the voltmeter to S2 terminal and the negative to M.
- Rotate P1 trimmer until the voltmeter indicates 0 V.



FOR MVB 36-52-56 ONLY

FIG. 2

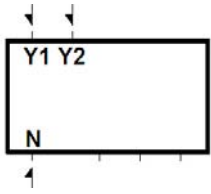
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4. ELECTRICAL CONNECTIONS

Perform the electrical connections according to the following diagrams and in compliance with existing rules.

TERMINAL BOARD

- MVB2. (230 V~)
- MVB46 (24 V~)



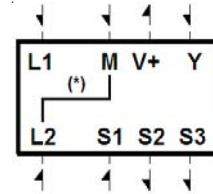
Y1 Joint up
N Common
Y2 Joint down

LEGEND

Control (1)

TERMINAL BOARD

- MVB5.
- MVB36



L1 Phase
L2=M=Common | 24 V~ ±10%
power supply

M Common
V+ 15 V- output
Y Control signal (3) | (2)

(*) Internally connected

N3009

S3 10...0V- or 200...0 μA
S2 0...10V- or 0...200 μA
S1 Analogue common | (4)

- (1) With voltage between N (Common) and Y1 (phase from controller contact): the actuator joint moves upwards. With voltage between N and Y2 the joint moves downwards. Without voltage the actuator remains in the position gained.
- (2) For MVB36: connect the controller potentiometer cursor (165 Ω) to Y terminal, one end to M and the other to V+ terminal.
- (3) When SW2 jumper is in C position (See Fig. 2) and signal increases, the joint moves downwards.
- (4) Connect the indicator with input current to S3 (or S2) and S1 terminals. Connect the indicator with input voltage to S3 (or S2) and M terminals. The extreme left voltage (current) value corresponds to joint up.

NOTE: For MVB actuators are available the following accessories: **MVBPA2** (card with 1Kohm auxiliary potentiometer), **D36** (micro auxiliary contact with adjustable cam), **MVBHT** (spacer for high temperatures), **244** (stem heater), **MVBD** (AUT/MAN microswitch - Only factory-mounted) and **MVBC** (Rainproof protection).

For further details make reference to the relevant mounting instructions (DIM004 and DIM023 only for 244).

P.C. board with an auxiliary potentiometer (MVBPA2) available only on request when ordering an actuator and factory-mounted.

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