



## Flow Control Valve Mod. IM-QP3B

### Hydraulic function

The hydraulic valve mod. IM-QP3B is an automatic regulating valve that allows to limit the volume served to an adjusted maximum value.

### Operation principle

The valve is controlled by an hydraulic 3 ways differential pilot (mod. QP3B), that determines the opening diaphragm degree basing on the instant flow in transit.

The pilot discharge or partially flood the valve chamber consequently to the differential pressure that is generated by the transit of the water through a calibrated orifice. The orifice diameter determines the volume that is needed to limit and the pilot allows to sharpen the regulation in his surroundings. When the volume demand grows, the pressure differential raises and the pilot operates the partial closing of the valve until reestablishing the limit of predefined volume. When being reduced the demand under the limited volume, the pilot returns to open the valve until its total opening. The circuit has a 3 ways manual handle (mod. CM4V) that allows to totally open or close the valve apart from the presence of the regulating pilot.

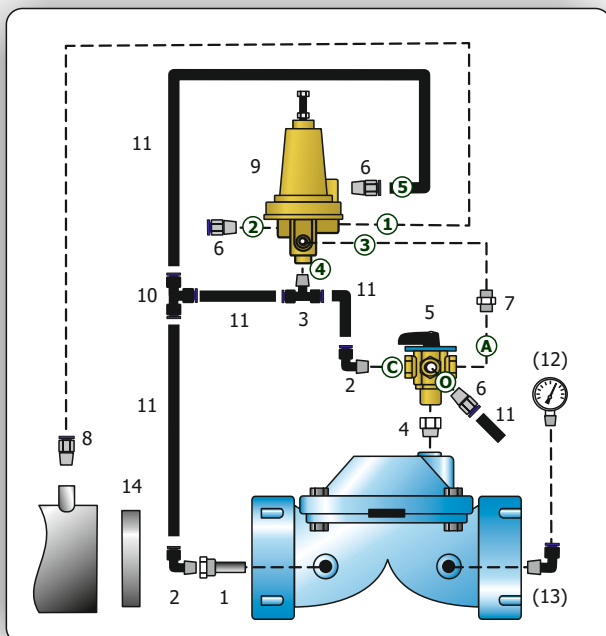
### First installation

- close or disconnect the outlet served network and feed the inlet pipe to the valve
- position the hand control in "CLOSE" and wait for some seconds so that the valve closes
- position the hand control in "OPEN" to evacuate all the present air in the chamber
- unscrew totally the adjustment screw and position the hand control in "AUTO"
- open to the outlet served network
- tighten the adjustment screw progressively until the volume arrives at the wished value.
- block the adjustment screw using the nut.

### Adjustments

The pilot screw allows to adjust the limited volume to a value that is within its regulation range (check Technical Characteristics). Tightening the screw in clock sense increases the limited volume value. Unscrewing the screw in the opposite sense it is reduced the value of the limited volume, until the total closing of the valve.

### Assembly scheme



### Accessories characteristics

#### Pilot QP3B PN16

Lower body: brass  
Cover: brass  
Connections: 5 x 1/8" F  
Identification washer



Spring  
Range: 2,0÷15,0 m.c.a.



Orifice plate  
Material: stainless steel  
Diameter Ø: on demand



#### Manual handle CM4V

Body: brass  
Junta: teflon  
Sphere: stainless steel  
Cover connection: Ø1/4" M BSP  
OPEN/CLOSE/AUTO: Ø1/8" F BSP

### Recommendations

- not disassemble to the valve or its circuit when the pipe is in pressure.
- not use with pressures superiores to the Nominal values.

#### LEGEND:

- 1 - Filter Ø1/4" M-1/8" F
- 2 - Elbow Ø1/8" M pipe Ø 6 mm
- 3 - Tee Ø1/8" M pipe Ø 6 mm
- 4 - Extension Ø1/4" M-F
- 5 - Manual handle CM4V
- 6 - Straight Ø1/8" M pipe Ø 6 mm
- 7 - Nipple Ø1/8" M-M
- 8 - Straight Ø1/4" M pipe Ø 6 mm
- 9 - Pilot QP3B
- 10 - Tee pipe Ø 6 mm
- 11 - Micropipe PEAD Ø 6 mm
- 12 - Pressure gauge (optional)
- 13 - Elbow Ø1/4" M pipe Ø 6 mm (optional)
- 14 - Orifice plate

- |                  |                              |
|------------------|------------------------------|
| ① - Sensor line  | ⑤ - Differential sensor line |
| ② - Discharge    | ⑥ - Close                    |
| ③ - Common       | ⑦ - Open                     |
| ④ - Alimentation | ⑧ - Auto (Automatic)         |

#### NOTES:

- fittings and micropipe Ø 8 mm for valves of Ø6" or superior.
- the technical characteristics can change without prior notice.