



**ELETTROTEC<sup>®</sup>**

**CONTROL DEVICES FOR FLUIDS**

# PMN - PMM INSTRUCTION MANUAL

Adjustable pressure switches with SPST contacts

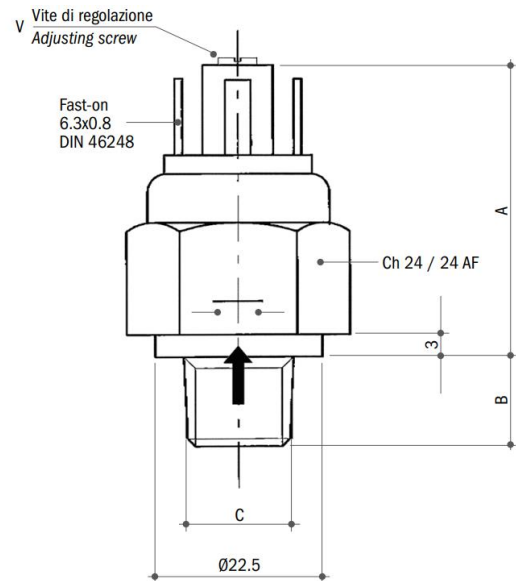
Rev. 1 - 03/23

## OVERVIEW



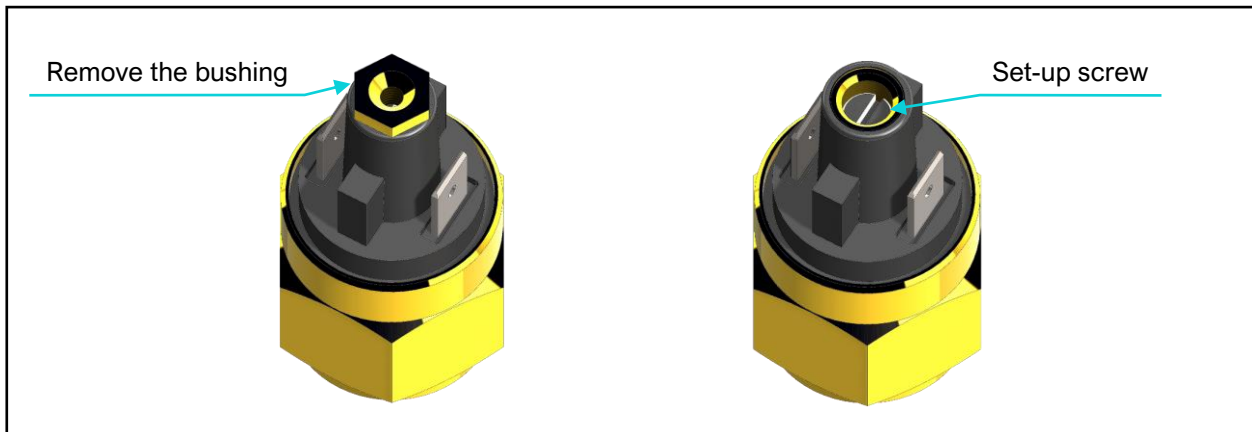
Versione per CAP. 1 - CAP. 10 - IP 54  
Execution for CAP. 1 - CAP. 10 - IP 54

Versione per CAP. 3 - IP 65  
Execution for CAP. 3 - IP 65



## SWITCHING POINT ADJUSTMENT

The adjustment process requires a suitable pneumatic or hydraulic pressure generator with a pressure transducer or a pressure gauge and an acoustic or visual alarm device to be connected to the electric contacts of the pressure switch. The required set-point value should be read right in the middle of the gauge reading scale. For example, it is recommended to use a pressure transducer from 0 to 10 bar when adjusting a pressure switch at 5 bar.



### Choosing rising or falling set-up

It is not possible to set-up a pressure switch both rising and falling; the chosen type of adjustment shall be based on the application necessities and the performance desired.

A rising adjusted pressure switch have a lower falling switching value, while a falling adjusted pressure switch have a wider reset switching value. These differences in the switching points can vary from a few tenths of bar on low pressure execution to a few bar in high-pressure execution.

### Set-up on Rising

Locate the set-up screw on the top the pressure switch and remove the bushing. Use a screwdriver to rotate the set-up screw: turn clockwise to rise the switching point, turn counter clockwise to reduce the switching point. Once reached the required set-point, starting from a pressure of 0 bar and gradually rising, the contact will switch from Normally Closed to Normally Open or vice versa. Repeat the reading operation twice to check the actuation point, repeating the adjustment process again if necessary.

## Set-up on Falling

Locate the set-up screw on the top the pressure switch and remove the bushing. Use a screwdriver to rotate the set-up screw. If a set-up falling is needed, slowly decrease the pressure from the working pressure to the working value and then decrease pressure slowly checking that the actuation point corresponds to the one required. If the switching point does not correspond to the desired setting, Should the actuation point not correspond to the setting value, increase pressure, from time to time, as to the previous value.

Check the pressure value reading at least two time to be sure of the correct actuation point, and repeat the adjusting process again if necessary.

## HYSTERESIS

The hysteresis is the subtraction between the set-point pressure and the contact resetting pressure. It is a fixed value and depend by the pressure range and setting pressure. On the catalogue are reported the typical value.

**Example:**

Working pressure starting at 0 bar rising, the pressure switch is set-up at 2.8 bar rising. As the working pressure decreases, the pressure switch contacts reset at 2.1 bar.  
Then the hysteresis value is 0.7 bar.