

USER'S GUIDE

PRESSURE SWITCH SETTING :



HTA INSTRUMENTATION PVT LTD.

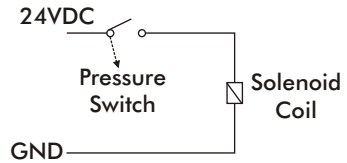
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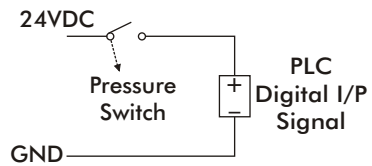
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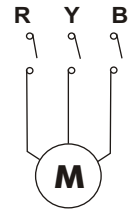
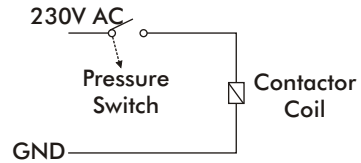
Typical Application :



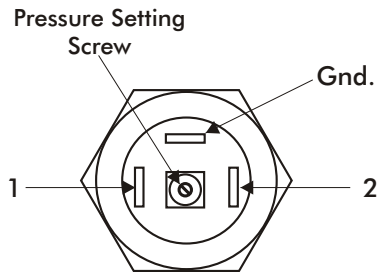
To Operate Solenoid Valve



As a signal Input to PLC

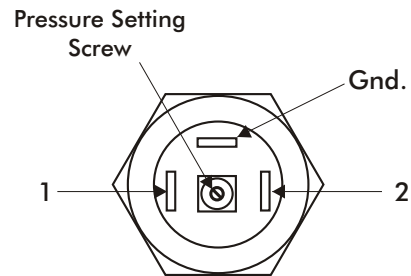


To Switch Off / ON the Pump



Model : 311 - Series

Fig. : 2.1



Model : 312 - Series

Fig. : 2.2

Note :

1. Setting screw should not be at extreme inside or outside.
2. In 27/28-series switch hysteresis screw should be adjusted by a qualified engineer only, since it is delicate, screw should be never turned more than 3 turns on either side.

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- f) Adjust the pressure setting screw such that there is a continuity established in the multimeter, which shows that the switch is set at 4.0bar.
- g) Reduce the pressure to zero & apply pressure gradually check the switching action is exactly at 4.0 bar, repeat it 4 to 5 times for repeatability.
- h) Please note that the pressure switch action is subject to the Tolerance of the pressure switch given in respective catalogues.
- i) Special note for 27/28-series. These switch have a 10 to 30 % hysteresis adjustment, which can be achieved by hysteresis adjustment screw (Refer fig:2.4). **Careful with the adjustment of this screw as it is extremely delicate and over turn may damage the switch itself.**

6. To set pressure at 4.0 bar for NC - type Pressure Switch having operating range of 1 to 10 bar.

- 1) Step (a, b, c & d) is same as above
- 2) Now check continuity between 1 & 2 (312-series), 1 & 3 (24-series), 1 & 2 (27 / 28-series) NC & C (48 Series) using a Multi-meter.
- 3) Adjust the pressure setting screw such that the continuity will cut off , which shows that the switch is set at 4.0 bar.
- 4) Step (g, h & i) is same as above.

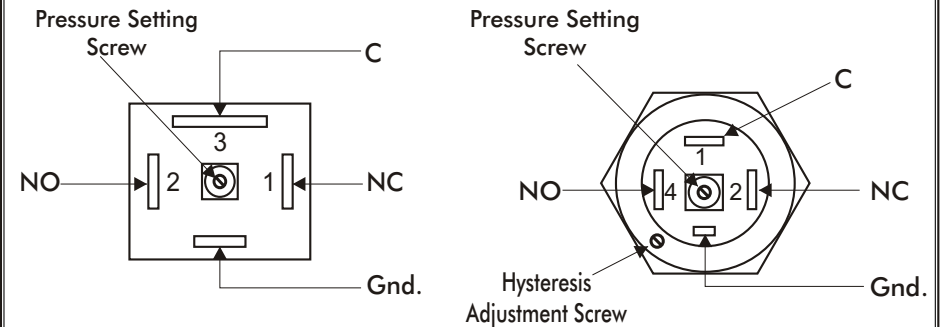
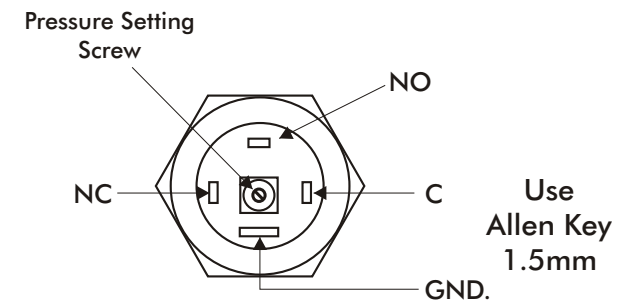


Fig. : 2.3

Fig. : 2.4



Model : 48 - Series

Fig. : 2.5

Calibration / Setting Procedure of pressure Switch :

1. Pressure input is given from pressure pump/ pressure generating device.
2. Calibrated pressure gauge & pressure switch is connected to the same pressure input.
3. Ensure there are no leakages.
4. For the following types of pressure switches, connect the multimeter probes to pin no. given below in continuity mode.
 - **NO - type** : Normally it will be in Open mode, while achieving the set pressure it goes to Close mode.
 - **NC - type** : Normally it will be in Close mode, while achieving the set pressure it goes to Open mode.
 - **SPDT - type** : Normally C & NC in Close mode, C & NO will be in Open mode while achieving the set pressure it goes Vice Versa.

Sl. Model No. Default Contact Mode Reference Fig.

- | Sl. | Model No. | Default Contact Mode | Reference Fig. |
|-----|--------------|--|----------------|
| 1. | 311-series | (NO Type, Pin no 1 & 2) | Fig. 2.1 |
| 2. | 312-series | (NC Type, Pin no 1 & 2) | Fig. 2.2 |
| 3. | 24-series | (NC Type, Pin no 1 & 3)
(NO Type, Pin no 2 & 3) | Fig. 2.3 |
| 4. | 27/28-series | (NC Type, Pin no 1 & 2)
(NO Type, Pin no 1 & 4) | Fig. 2.4 |
| 5. | 48-Series | (NC Type, NC, C)
(NO Type, NO, C) | Fig. 2.5 |

5. For example, To set pressure at 4.0 bar for NO - type Pressure Switch having operating range of 1 to 10 bar.
 - a) Mount the pressure switch, pressure gauge, pressure generating device & multimeter as Fig- 1.
 - b) Ensure the setting screw is as shown in Fig. 3.

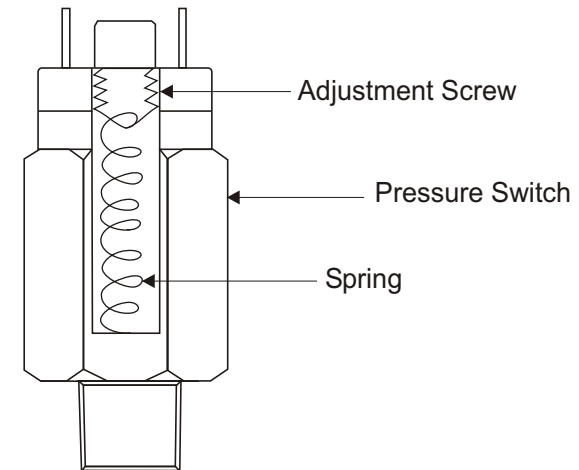


Fig. : 3 Inside View of Pressure Switch

- c) Adjust the pressure setting screw in clockwise for increase & anticlockwise for decrease
- d) Start the pressure generating device to develop pressure to achieve 4.0 bar on the pressure gauge.
- e) Now check continuity using a multimeter, there should be no continuity between pin numbers 1 & 2 (311-series), 2 & 3 (24-series) or 1 & 4 (27/28-series)