



# PRESSURE SWITCHES PS SERIES



- G STURDY MECHANISM**
- G TRIPLE POLE CUT-IN / CUT-OUT**
- G DIAPHRAGM SENSOR**

**Series PS** Pressure Switches are essentially meant for On-Off pressure control applications such as air compressor or water pump to control their working between the minimum and maximum setting values: at the maximum setting value, pressure switch contacts open and stops the motor, at the minimum value, pressure switch contacts close and starts the motor.

A specially contoured diaphragm senses the change in pressure and actuates a triple pole contact switch, which enables direct switching of 3 phase motors.

The setpoint (cut-out pressure) and resetpoint (cut-in pressure) are adjusted by a Range screw and Differential screw.

A pressure relief valve to relieve the pressure locked at the compressor cylinder head is available in Model PSU.

A hand lever is provided to lock the contacts in "OFF" position if required. When set to "AUTO" position, the pressure switch initiates normal operation.



## GENERAL SPECIFICATION

Enclosure	Epoxy coated MS Enclosure with Engineering Plastic cover Weatherproof to IP:44
Sensor	Nitrile Diaphragm (Buna-N) fabric interlaid
Wetted Parts	Aluminium
Ranges	1 – 4 <b>or</b> 2.5 – 9.5 <b>or</b> 7 – 15 bar
Switching	3 pole (TPST) contacts, normally closed
Rating	9A, AC-3 Phase, 500V; 6A 220V DC

Differential	Wideband, adjustable
Ambient Temp.	0 to 70°C
Max. Process Temp.	100°C

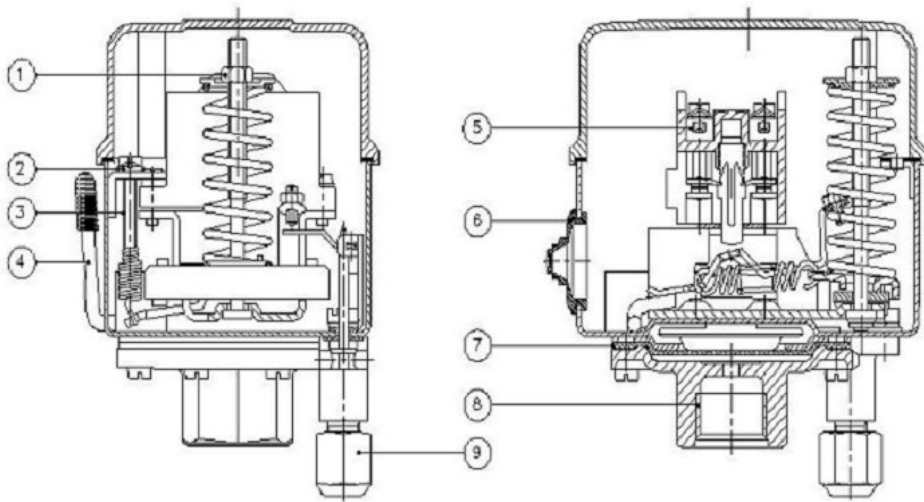
### Connections

Process Pressure	1/2" BSP F
Pr. Relief Valve (Model PSU only)	1/4" Flare connection with nut.
Electrical Entry	Suitable for 6 to 14 mm dia cable
Mounting	Direct-on-line

## ORDERING MATRIX

Model	Range (bar)	Differential (bar)		Max. Pressure (bar)	Pressure Relief Valve (U)	Manual Switch
		Min.	Max.			
PS-4B	1 to 4	0.6 to 0.7	3	8	×	✓
PS-9B	2.5 to 9.5	1.2 to 1.8	7	20	×	✓
PS-15B	7 to 15	1.7 to 2.3	7	20	×	✓
PSU-9B	2.5 to 9.5	1.2 to 1.8	7	20	✓	✓
PSU-15B	7 to 15	1.7 to 2.3	7	20	✓	✓
PSU-15X	7 to 15	1.7 to 2.3	7	20	✓	×

## OPERATING PRINCIPLE

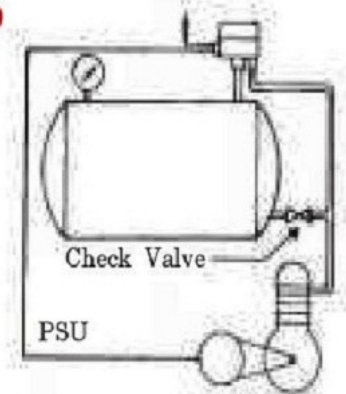


PS/PSU Switches have a triple pole cut out, the actuation of which depends upon the pressure at process connection (8) and the set pressure. Turning the adjusting nut (1) towards (+) increases the cutout pressure and turning towards (-) reduces the cut-out pressure. Cut-in pressure is the difference between cut-out pressure and differential. Turning the adjustable screw (3) towards (+) increases the differential (reduces cut-in pressure) and turning towards (-) reduces the differential (increase cut-in pressure).

1. Adjustable Nut for Cut-out Pressure
2. Earth Terminal
3. Adjustable Screw for Cut-in Pressure
4. Hand Lever for Manual OFF
5. Terminals
6. Cable Entry
7. Sensing Diaphragm
8. Process Connection
9. Pressure Relief Valve (for Model PSU only)

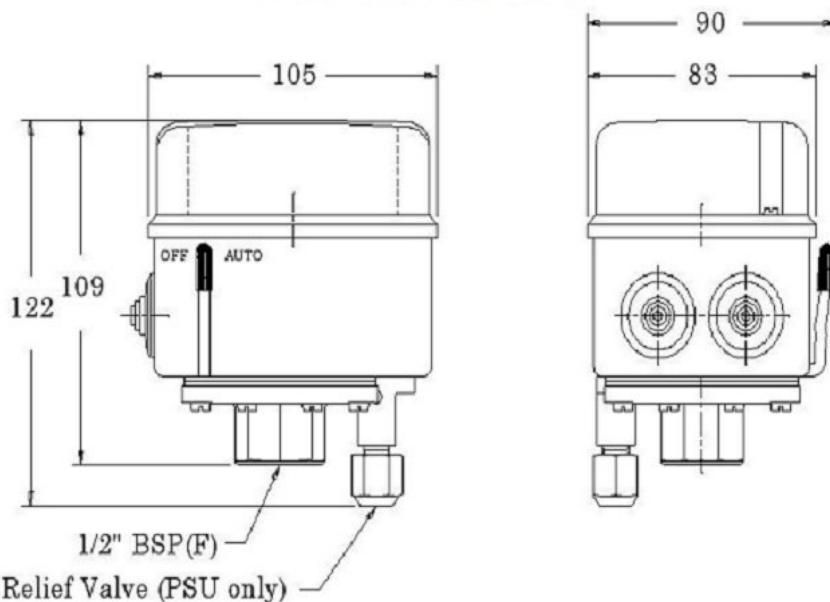
## PRESSURE RELIEF VALVE (FOR PSU MODEL)

To be connected to delivery line between compressor and receiver. Check valve at receiver inlet has to be used. 1/4" Flare connection is provided for relief valve.

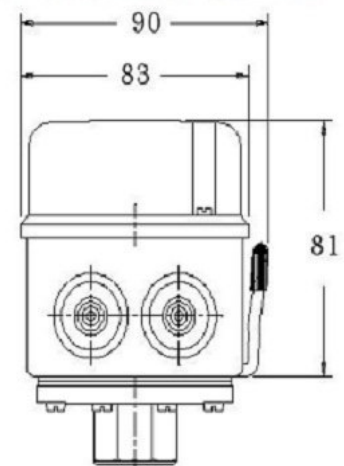


## MOUNTING DIMENSIONS

**PSU - With Relief Valve**



**PS - Without Relief Valve**



*All dimensions are in mm*