

# Pressure switch mechanical Model PSM-530

Switzer data sheet PSM-530

## Applications

- Automatic start/stop of compressors
- Automatic start/stop of water pumps

## Special features

- Robust design
- Triple pole cut-in/cut-out
- Diaphragm sensor
- Manual on/off



**Fig. top: Pressure switch mechanical, model PSM-530**  
**Fig. bottom: Pressure switch mechanical with relief valve, model PSM-530**

## Description

Model PSM-530 pressure switches are essentially designed for on-off pressure control applications such as air compressors or water pumps 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 start the motor.

A diaphragm senses the change in pressure and actuates a triple pole contact switch, which enables control of 3-phase motors.

The set point (cut-out pressure) and reset point (cut-in pressure) are adjusted by a range screw and a differential screw.

A pressure relief valve (unloader valve) to relieve the pressure locked at the compressor cylinder head is available in model PSM-530.

## Standard version

### Switch enclosure

Cover: ABS, plastic  
Housing: Steel, powder coated

### Repeatability

±2 % of full scale value

### Permissible ambient temperature

70 °C

### Permissible medium temperature

100 °C

### Process connection

- 1/2" BSP(F)
- Optional process connection available on request

### Measuring element

Nitrile diaphragm (Buna-N) fabric interlaid

### Pressure connector

Die cast aluminium

### Gasket

Process connection: Nitrile  
Cover: Silicone

### Switch contacts

Triple pole single throw (TPST) contact system

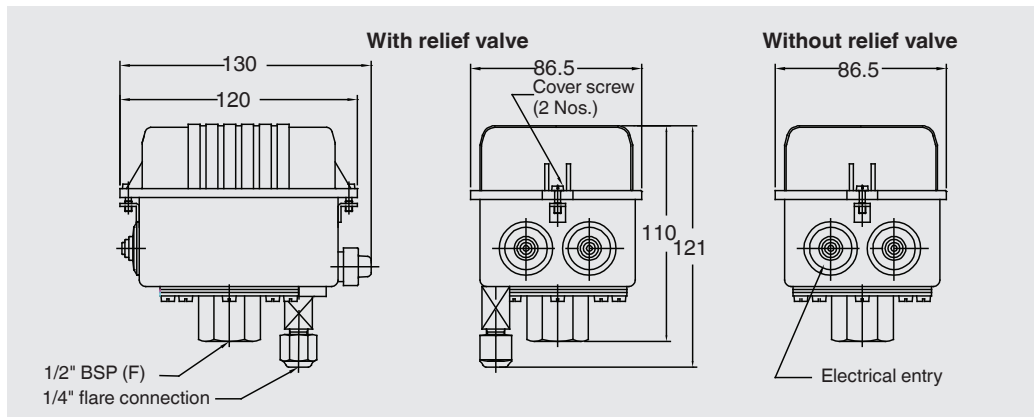
### Switching function

Normally closed contacts

### On-off differential

Adjustable

## Dimensions in mm



### Manual on/off \*

Standard

### Electrical rating

9A, AC 440 V

### Electrical entry

Via rubber grommet suitable for Ø 6 ... 14 mm cable

### Ingress protection

IP44

### Mounting

Direct online

### Pressure relief valve (only PSM-530-9U, PSM-530-15U)

1/4" flare connection with nut

### Conformity

Generally to BS:6134:1991

## Ordering matrix

Model	Range in bar	Differential in bar		Max. pressure in bar	Pressure relief valve
		Min.	Max.		
PSM-530-4	1 ... 4	0.7	3	8	×
PSM-530-9	2.5 ... 9.5	1.8	7	20	×
PSM-530-15	7 ... 15	2.3	7	20	×
PSM-530-9U	2.5 ... 9.5	1.8	7	20	✓
PSM-530-15U	7 ... 15	2.3	7	20	✓

Note:

- \* Add suffix "X" in the model number if manual switching option is not required. (e. g. PSM-530-9U to PSM-530-9UX)

## Ordering information

### Model / Optional process connection

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