

Pressure switch For industrial applications Model PSM-520

WIKA data sheet PV 35.01

EAC

Applications

- Pumps
- Compressors

Special features

- Adjustable on site
- Protection cap for switch point setting
- Setting ranges:
 - 0.4 ... +7 to 6 ... 30 bar
 - 6 ... 100 to 85 ... 425 psi
 - 0.04 ... +0.7 to 0.6 ... 3 MPa
- Electrical rating up to AC 230 V, 50/60 Hz, 10 A



Pressure switch, model PSM-520

Description

The model PSM-520 is used in industrial control, monitoring and alarm applications.

The switch point can be specified by the customer on site.

The instrument can switch electrical loads of up to AC 230 V, 50/60 Hz, 10 A.

The model PSM-520 pressure switch offers many application possibilities with non-corrosive media like oil, water and air.

Specifications

Unit	Setting range ¹⁾	Permissible switch point on rising pressure	Adjustable switch differential ²⁾	Max. working pressure
bar	0 ... 5	0.4 ... 5	0.4 ... 4	16
	0 ... 7	0.6 ... 7	0.6 ... 6	16
	6 ... 15	7.5 ... 15	1.5 ... 5	32
	6 ... 30	9 ... 30	3 ... 8	42
	-0.4 ... +7	0.2 ... 7	0.6 ... 6	16
MPa	0 ... 0.5	0.04 ... 0.5	0.04 ... 0.4	1.6
	0 ... 0.7	0.06 ... 0.7	0.06 ... 0.6	1.6
	0.6 ... 1.5	0.75 ... 1.5	0.15 ... 0.5	3.2
	0.6 ... 3	0.9 ... 3	0.3 ... 0.8	4.2
	-0.04 ... +0.7	0.02 ... 0.7	0.06 ... 0.6	1.6
psi	0 ... 70	6 ... 70	6 ... 55	230
	0 ... 100	9 ... 100	9 ... 85	230
	85 ... 215	107 ... 215	22 ... 72	450
	85 ... 425	130 ... 425	45 ... 115	610
	-6 ... +100	3 ... 100	9 ... 85	230

1) Switch point and reset point have to be within the setting range

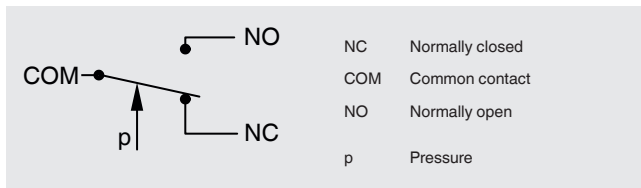
2) The difference between the switch point and the reset point is also known as switch hysteresis

Non-repeatability of the switch point

≤ 2 % of span

Switch contact

1 x change-over / SPDT ³⁾



³⁾ Single pole double throw

Electrical rating

Current consumption ⁴⁾	Voltage	Current
Resistive load AC-1	AC 230 V, 50/60 Hz	10 A
Inductive load AC-15	AC 230 V, 50/60 Hz	6 A

4) per DIN EN 60947-1

Operating conditions

Permissible temperature ranges

Ambient: -40 ... +70 °C [-40 ... +158 °F]

Medium: -20 ... +100 °C [-4 ... +212 °F]

Storage: -20 ... +80 °C [-4 ... +176 °F]

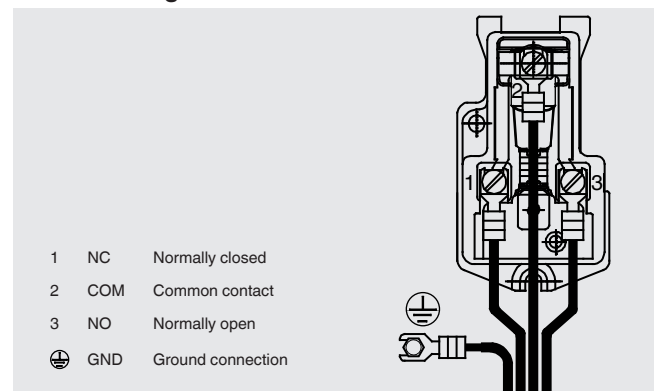
Reference conditions

Relative humidity per BS 6134

< 50 % r. h. at 40 °C [104 °F]

< 90 % r. h. at 20 °C [68 °F]

Terminal assignment



Electrical connection

Rubber grommet for cables Ø 6 ... 14 mm [Ø 0.24 ... 0.55 in]

Ingress protection per IEC/EN 60529

IP30

The ingress protection is only valid if all mounting holes on the rear of the instrument are covered, or for panel mounting on flat surfaces.

Process connections

Process connection per	Thread size
ISO 228-1	G ¼ female
	G ¼ B


Materials

Wetted parts

Bellow: Copper alloy CuSn6 per EN 1652

Process connection: Free cutting steel EN1A per
EN 10277-3, tin-plated

Approvals

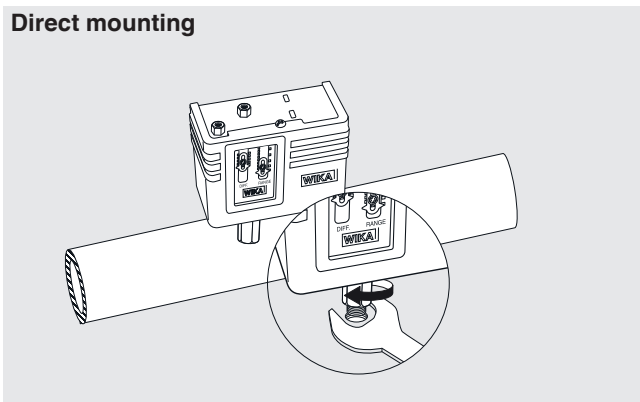
Logo	Description	Country
	EU declaration of conformity <ul style="list-style-type: none">■ Low voltage directive■ RoHS directive	European Union
	EAC (option)	Eurasian Economic Community

Approvals and certificates, see website

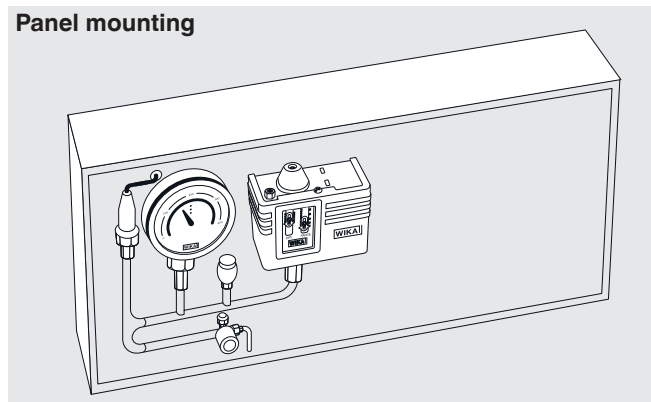
Mounting

Mounting option

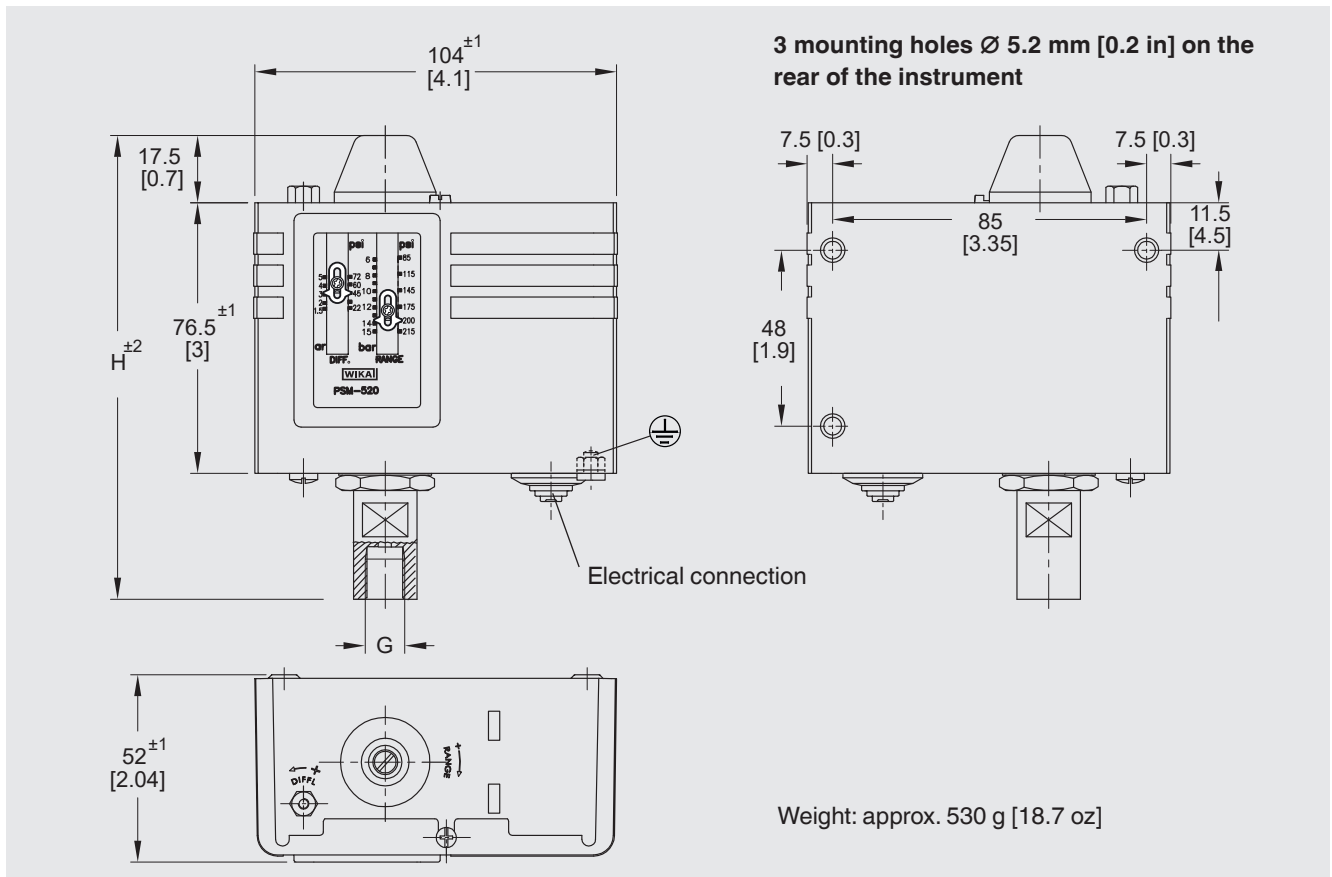
Direct mounting



Panel mounting



Dimensions in mm [in]



Process connection: G 1/4 female

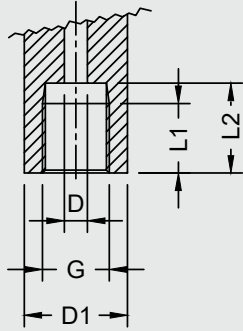
Setting range			Dimensions in mm [in]
psi	bar	MPa	H
0 ... 70	0 ... 5	0 ... 0.5	122 [4.8]
0 ... 100	0 ... 7	0 ... 0.7	
-6 ... +100	-0.4 ... +7	-0.04 ... +0.7	
85 ... 215	6 ... 15	0.6 ... 1.5	127 [5.0]
85 ... 425	6 ... 30	0.6 ... 3	

Process connection: G 1/4 B

Setting range			Dimensions in mm [in]
psi	bar	MPa	H
0 ... 70	0 ... 5	0 ... 0.5	117 [4.6]
0 ... 100	0 ... 7	0 ... 0.7	
-6 ... +100	-0.4 ... +7	-0.04 ... +0.7	
85 ... 215	6 ... 15	0.6 ... 1.5	129 [5.1]
85 ... 425	6 ... 30	0.6 ... 3	

Process connections

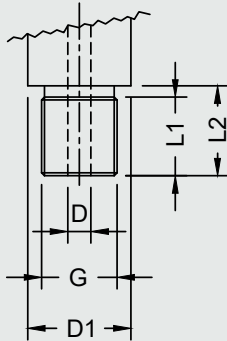
G ¼ female per ISO 228-1



Setting range			Dimensions in mm [in]				
psi	bar	MPa	G	D	D1 ¹⁾	L1	L2
0 ... 70	0 ... 5	0 ... 0.5	G ¼ female	Ø 4 [0.157]	SW 18 [0.709]	12 [0.472]	15 [0.59]
0 ... 100	0 ... 7	0 ... 0.7					
-6 ... +100	-0.4 ... +7	-0.04 ... +0.7					
85 ... 215	6 ... 15	0.6 ... 1.5			Ø 17.8 [0.7]	15.5 [0.61]	
85 ... 425	6 ... 30	0.6 ... 3					

1) SW = spanner width

G ¼ B per ISO 228-1



Setting range			Dimensions in mm [in]				
psi	bar	MPa	G	D	D1 ¹⁾	L1	L2
0 ... 70	0 ... 5	0 ... 0.5	G ¼ B	Ø 4 [0.157]	SW 14 [0.551]	12 [0.472]	14 [0.551]
0 ... 100	0 ... 7	0 ... 0.7					
-6 ... +100	-0.4 ... +7	-0.04 ... +0.7					
85 ... 215	6 ... 15	0.6 ... 1.5			Ø 17.8 [0.7]	15.5 [0.61]	
85 ... 425	6 ... 30	0.6 ... 3					13.5 [0.531]

1) SW = spanner width

Ordering information

Model / Setting range / Process connection

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