

# Pressure switch, heavy-duty version For superior industrial applications Model PSM-550

WIKA data sheet PV 35.03

## Applications

- Pumps
- Lubrication systems
- Hydraulic systems
- Autoclaves

## Special features

- Non-repeatability  $\leq 1\%$
- Setting ranges for vacuum, +/- and gauge pressure



Pressure switch, heavy-duty version, model PSM-550

## Description

The PSM-550 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, 10 A.

The PSM-550 pressure switch offers many application possibilities with non-corrosive media like oil, water and air.

# Specifications

Unit	Setting range <sup>1)</sup>	Permissible switch point on rising pressure	Permissible switch point on falling pressure	Adjustable switch differential <sup>2)</sup>	Max. working pressure depending on measuring element		
					Bellow, copper alloy	Bellow, stainless steel	Diaphragm, NBR
mbar	0 ... 300	10 ... 300	0 ... 250	10 ... 50	-	-	500
bar	0.1 ... 1.1	0.17 ... 1.1	0.1 ... 0.94	0.07 ... 0.16	7	7	-
	0.2 ... 3	0.32 ... 3	0.2 ... 2.25	0.12 ... 0.75	7	7	-
	0.2 ... 6	0.45 ... 6	0.2 ... 4.8	0.25 ... 1.2	15	25	-
	1 ... 10	1.3 ... 10	1 ... 8.7	0.3 ... 1.3	16	25	-
	2 ... 17	2.3 ... 17	2 ... 15	0.3 ... 2	-	25	-
	4 ... 17	5.2 ... 17	4 ... 13	1.2 ... 4	25	25	-
	10 ... 30	11 ... 30	10 ... 26	1 ... 4	45	45	-
	-1 ... 0	-0.91 ... 0	-1 ... -0.4	0.09 ... 0.4	7	7	-
-0.8 ... +5	-0.3 ... +5	-0.8 ... +3	0.5 ... 2	15	25	-	

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

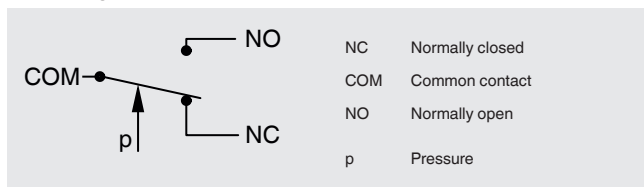
2) The difference between the switch point and the reset point is also known as switch hysteresis

## Non-repeatability of the switch point

≤ 1 % of span

## Switch contact

1 x change-over contact / SPDT <sup>3)</sup>



3) Single pole double throw

## Electrical rating

Current consumption <sup>4)</sup>	Voltage	Current
Resistive load AC-1	AC 230 V	10 A
Inductive load AC-15	AC 230 V	4 A

4) per DIN EN 60947-1

## Operating conditions

### Permissible temperature ranges

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

Medium: -20 ... +70 °C [-4 ... +158 °F]

-20 ... +170 °C [-4 ... +338 °F] for wetted parts from stainless steel

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

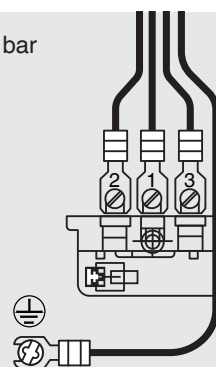
## Terminal assignment

All setting ranges, except for -1 ... 0 bar

- 1 NC Normally closed
- 2 COM Common contact
- 3 NO Normally open
- ⊕ GND Ground connection

Setting range: -1 ... 0 bar

- 1 NO Normally open
- 2 COM Common contact
- 3 NC Normally closed
- ⊕ GND Ground connection



## Reference conditions

### Relative humidity per BS 6134

< 50 % r. h. at 40 °C [104 °F]

< 90 % r. h. at 20 °C [68 °F]

### Electrical connection

Cable gland ½ NPT

### Ingress protection per IEC/EN 60529

IP67

### Process connections

Process connection per	Thread size
ISO 228-1	G ¾ B

## Materials

### Wetted parts

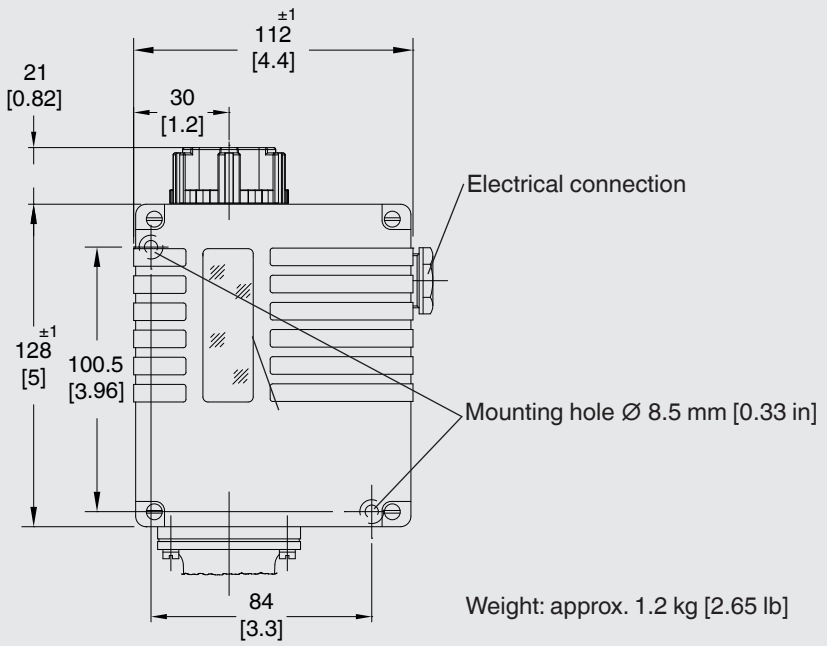
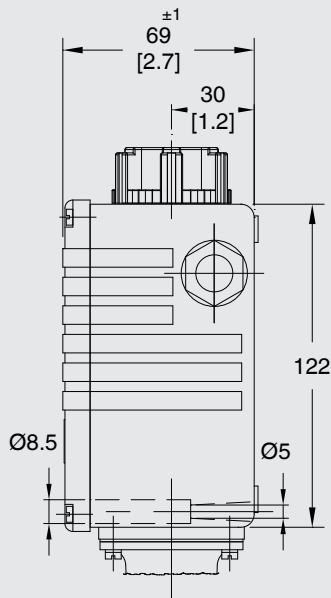
- Measuring element: Bellow, copper alloy CuSn6 per EN 1652  
Process connection: Copper alloy
- Measuring element: Bellow, stainless steel 1.4401  
Process connection: ■ Copper alloy  
                                  ■ Stainless steel 1.4401
- Measuring element: Diaphragm, NBR  
Process connection: Free cutting steel EN1A per  
                                  EN 10277-3, tin-plated

## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> <ul style="list-style-type: none"><li>■ Low voltage directive</li><li>■ RoHS directive</li></ul>	European Union

Approvals and certificates, see website

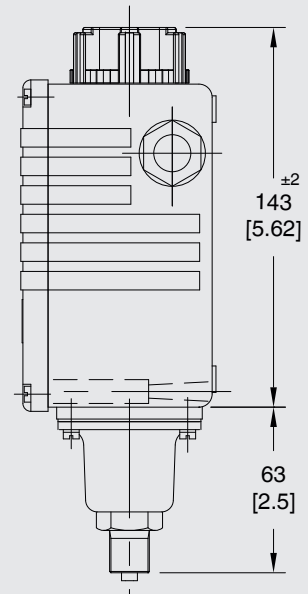
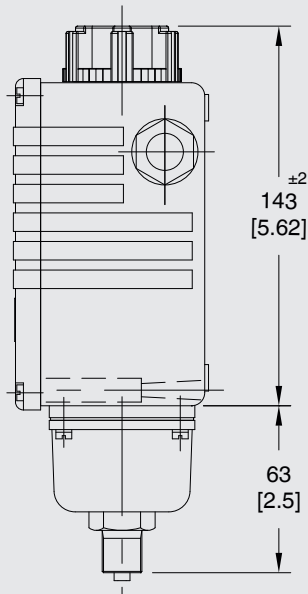
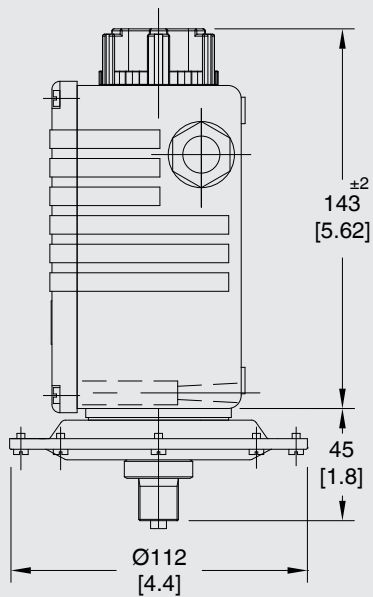
# Dimensions in mm [in]



Setting range: 0 ... 300 mbar

Setting range: 0.1 ... 1 bar  
-1 ... 0 bar

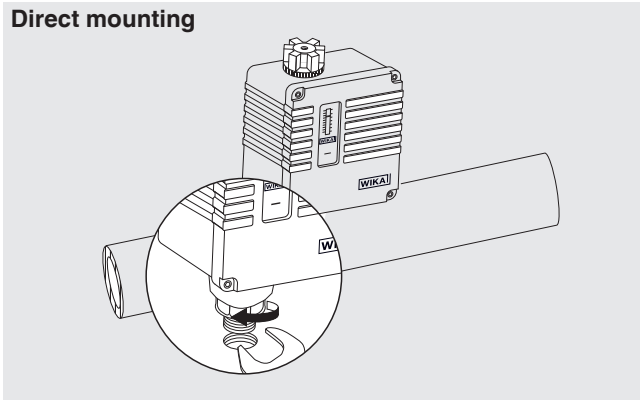
Setting range: 0.2 ... 3 bar    0.2 ... 6 bar  
1 ... 10 bar    2 ... 17 bar  
4 ... 17 bar    10 ... 30 bar  
-0.8 ... +5 bar



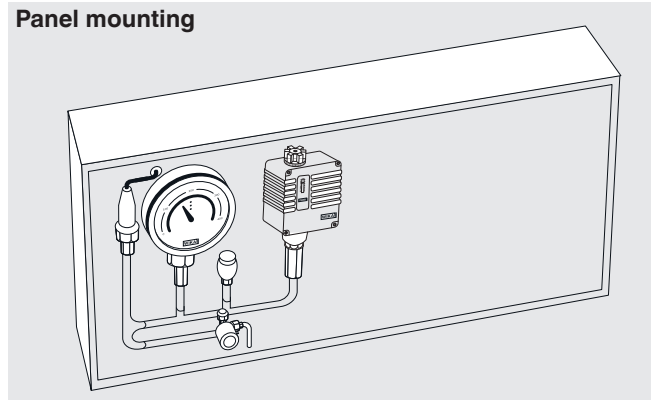
# Mounting

## Mounting option

### Direct mounting

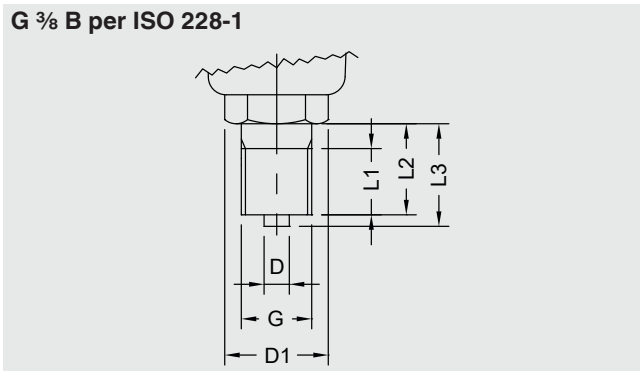


### Panel mounting



## Process connections

### G 3/8 B per ISO 228-1



#### Dimensions in mm [in]

G	D	D1 <sup>1)</sup>	L1	L2	L3
G 3/8 B	∅ 6 [0.236]	SW 24 [0.945]	13 [0.511]	16 [0.63]	19 [0.748]

1) SW = spanner width

## Ordering information

Model / Setting range / Material of measuring element / Material of process connection

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