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

Applications

- Pumps
- Lubrication systems
- Hydraulic systems
- Autoclaves

Special features

- Non-repeatability ≤ 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 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.

Data sheets showing similar products:
Pressure switch, heavy-duty version, adjustable switch differential; model PSM-520; see data sheet PV 35.01
Pressure switch, heavy-duty version, TPST; model PSM-530; see data sheet PV 35.02

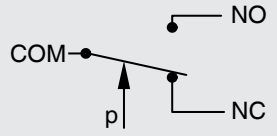
Specifications

Unit	Setting range [1]	Permissible switch point on rising pressure	Permissible switch point on falling pressure	Adjustable switch differential [2]	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 [3]



NC	Normally closed
COM	Common contact
NO	Normally open
p	Pressure

3) Single pole double throw

Electrical rating

Current consumption [4]	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]

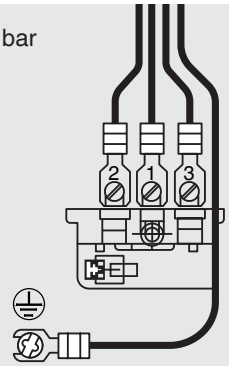
Terminal assignment

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 ⅜ 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

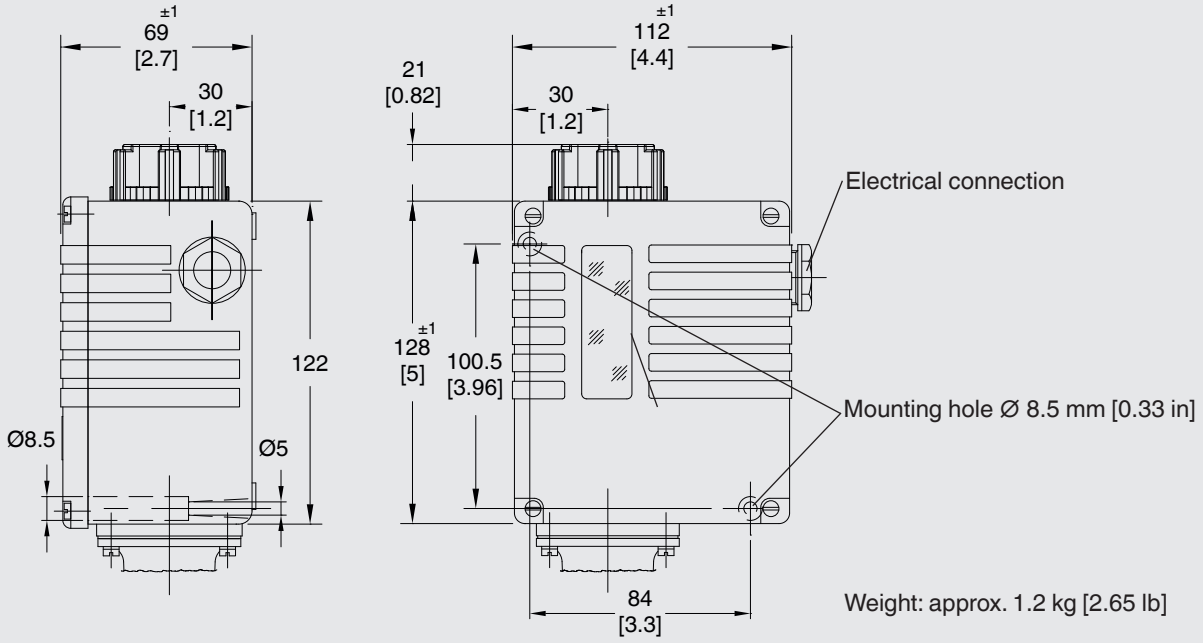
- Measuring element: Diaphragm, NBR
  Process connection: Free cutting steel EN1A per EN 10277-3, tin-plated

Approvals

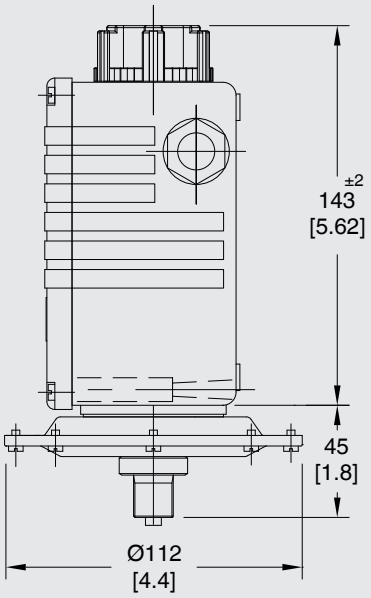
Logo	Description	Country
CE	**EU declaration of conformity** ■ Low voltage directive ■ RoHS directive	European Union

Approvals and certificates, see website

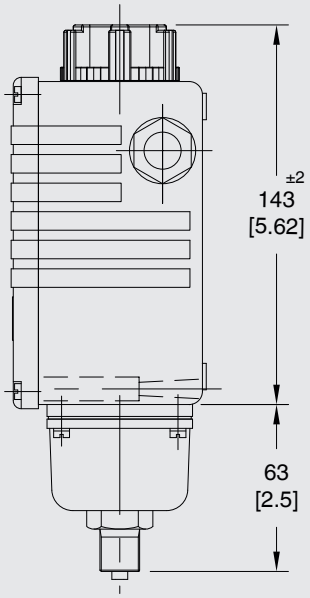
Dimensions in mm [in]



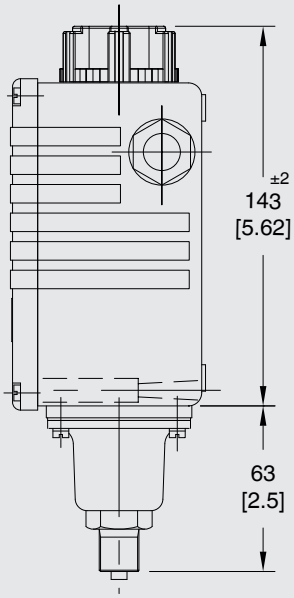
Setting range: **0 ... 300 mbar**



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



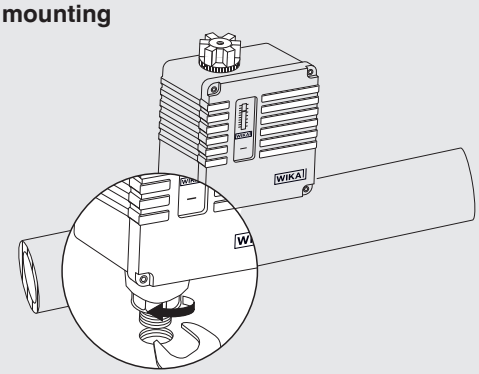
Setting range: **0.2 ... 3 bar** **0.2 ... 6 bar**
1 ... 10 bar **2 ... 17 bar**
4 ... 17 bar **10 ... 30 bar**
-0.8 ... +5 bar



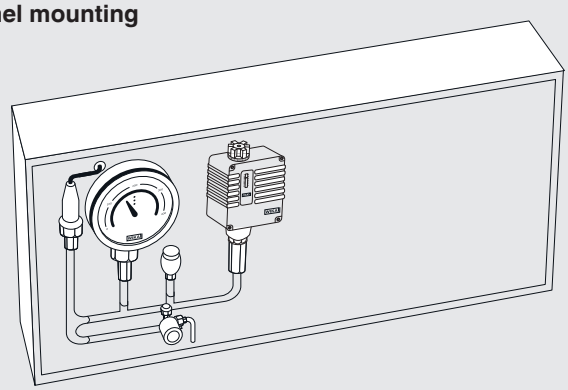
Mounting

Mounting option

Direct mounting

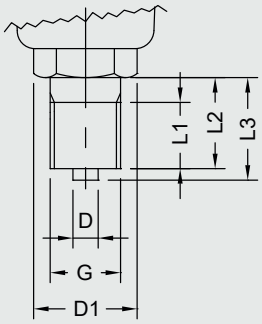


Panel mounting



Process connections

G ⅜ B per ISO 228-1



Dimensions in mm [in]					
G	D	D1 [1]	L1	L2	L3
G ⅜ B	Ø 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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