

Pressure switch

For industrial applications

Model PSM-520

<https://www.markazbargh.com/product-category/pressure-transmitter/>

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.

<https://www.markazbargh.com/product-category/automation/>

WIKA data sheet PV 35.01 · 03/2020

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Data sheets showing similar products:
 Pressure switch, TPST; model PSM-530; see data sheet PV 35.02
 Pressure switch, for superior industrial applications; model PSM-550; see data sheet PV 35.03

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

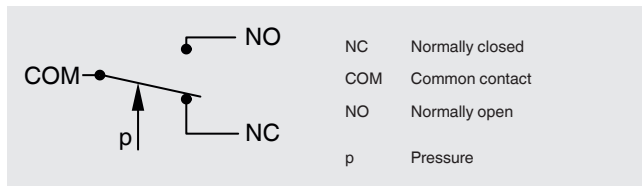
2) The difference between the switch point and the reset point is also known as switch hysteresis

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]

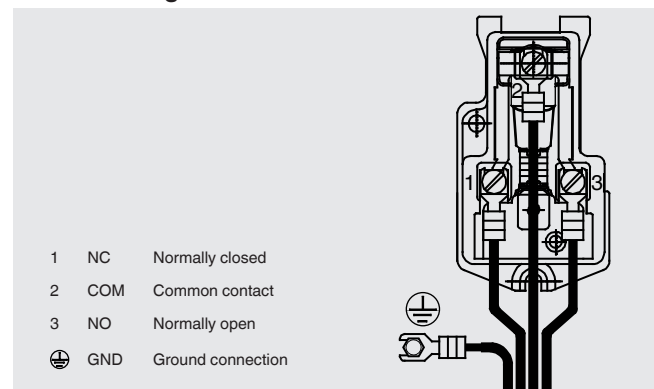
Reference conditions

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

<https://www.markazbargh.com/product-category/power-supply/>

| 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 |

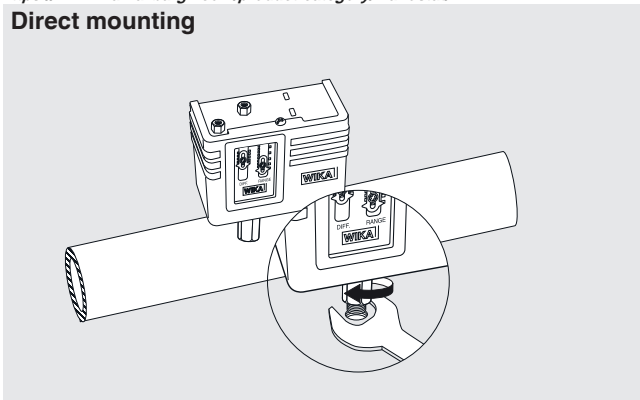
Approvals and certificates, see website

Mounting

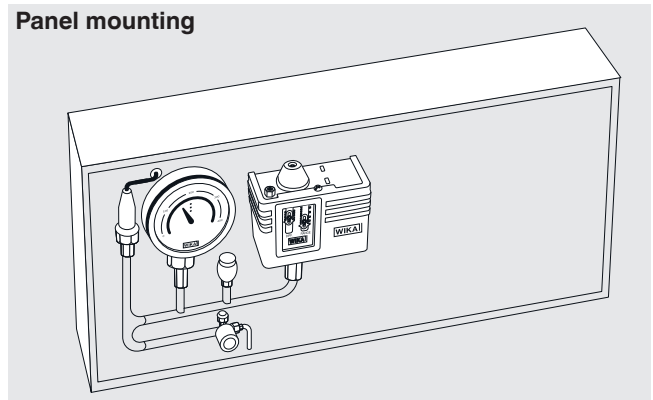
Mounting option

<https://www.markazbargh.com/product-category/manostat/>

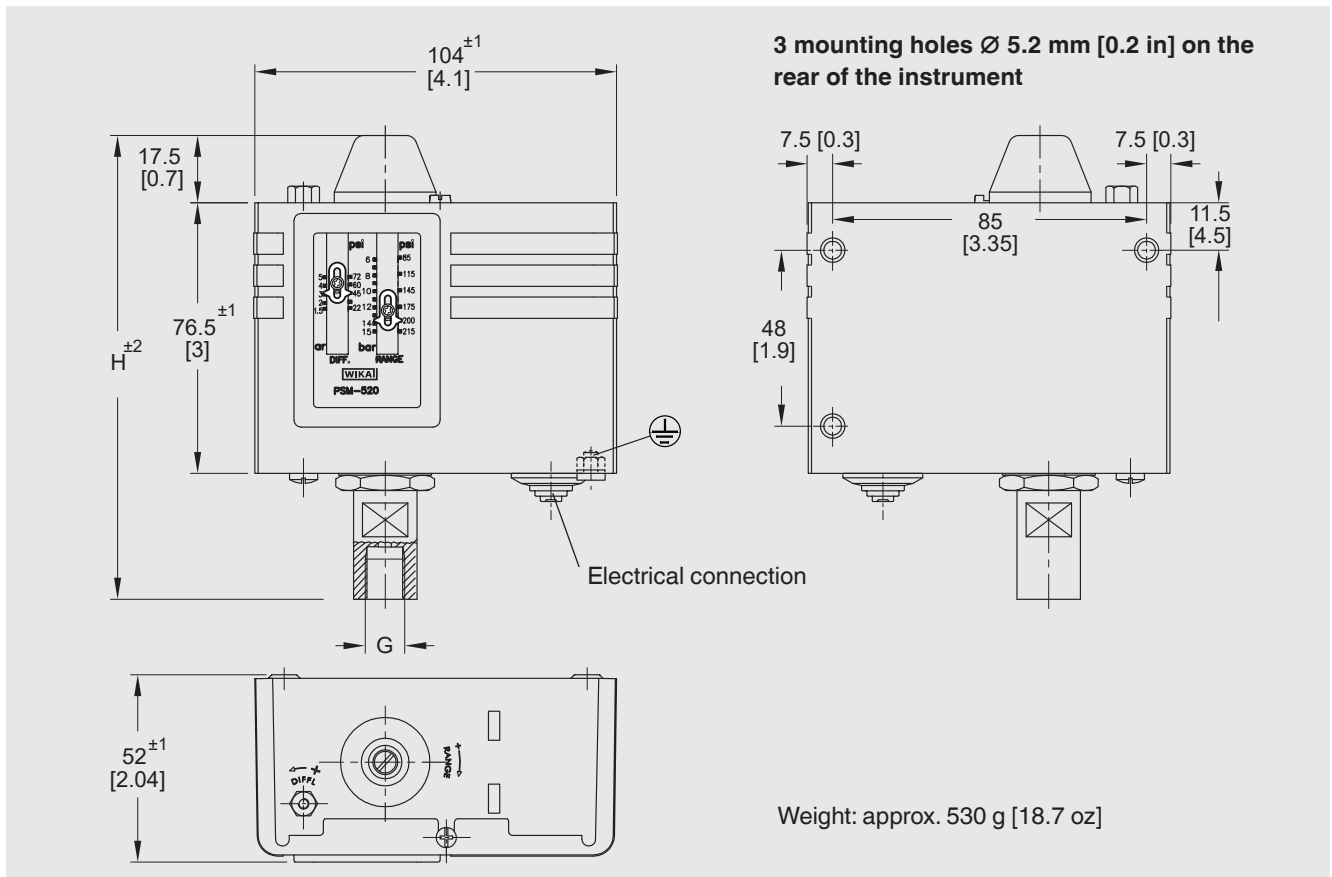
Direct mounting



Panel mounting



Dimensions in mm [in]



Process connection: G ¼ female

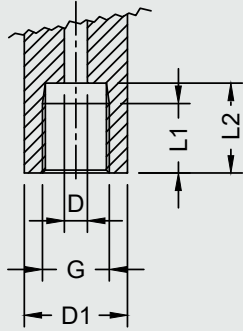
| Setting range | | | Dimensions in mm [in] |
|---------------|-------------|----------------|-----------------------|
| psi | bar | MPa | H |
| 0 ... 70 | 0 ... 5 | 0 ... 0.5 | 122 [4.8] |
| 0 ... 100 | 0 ... 7 | 0 ... 0.7 | |
| -6 ... +100 | -0.4 ... +7 | -0.04 ... +0.7 | |
| 85 ... 215 | 6 ... 15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

Process connection: G ¼ 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

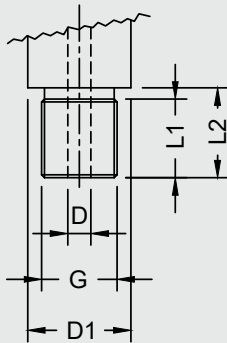
G ¼ female per ISO 228-1



| 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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