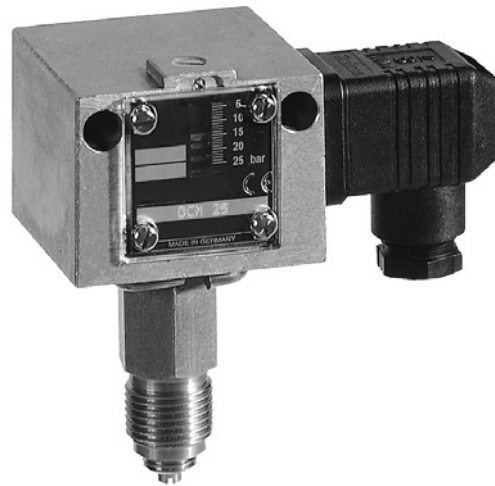


PS05

Pressure switches for non-corrosive liquids and gases

- extremely robust
- universal connection G 1/4 female and G 1/2 male
- adjustable hysteresis
- wide switching ranges



Description:

The PS series pressure switches are mechanically very robust. The PS05 heavy-duty housing is made of die-cast aluminum; it is saltwater-proof and, depending on the pressure range, has a CuZn or stainless steel 1.4104 fitting, with a 1/2" male thread, and a 1/4" female thread. Pressure changes at the connection act on an internally-fitted bellows, whose movements are transmitted mechanically to a high-performance microswitch.

The switching point can be adjusted from outside of the device by turning a setpoint spindle, which alters the spring bias. A counter pressure spring, which assures very stable switching at low adjustment values, is also fitted in the switch.

Typical Applications:

The PS05 series pressure switches are favored for applications with strict requirements for switch service life and mechanical durability. The PS05 guarantees outstanding long-term stability and small operating-point drift since the pressure-absorbing bellows are only lightly loaded relative to their design load ranges. The bellows travel is limited by a stop so that maximum protection against overpressures can be achieved even for narrow operating ranges. A large number of setting ranges are available. A model with adjustable hysteresis can be supplied for most setting ranges, which allows the user to monitor a pressure range with a single device. The use of high-quality materials, flexible fittings and high microswitch switching capacity all add up to make the PS05 suitable for general use throughout industry.

Models:

PS05 pressure switches for non-corrosive liquids and gases

Hysteresis: The hysteresis cannot be adjusted on the PS05.1.A to PS05.1.M models.
The hysteresis can be adjusted on the PS05.2.D to PS05.2.M models (see table)

Operating range:

Model:	Hysteresis not adjustable	Hysteresis adjustable	Maximum pressure	Connection drawing no.*
PS05.x.A	2 mbar	-	1 bar	11
PS05.x.B	2 mbar	-	1 bar	11
PS05.x.C	12 mbar	-	10 bar	-
PS05.x.D	0.03 bar	0.03-0.4 bar	6 bar	14
PS05.x.E	0.04 bar	0.04-0.5 bar	6 bar	14
PS05.x.F	0.04 bar	0.07-0.55 bar	6 bar	14
PS05.x.G	0.1 bar	0.15-1.5 bar	16 bar	15
PS05.x.H	0.15 bar	0.25-2.0 bar	16 bar	15
PS05.x.I	0.3 bar	0.5-2.8 bar	16 bar	15
PS05.x.J	0.5 bar	0.7-3.5 bar	25 bar	15
PS05.x.K	1.0 bar	1.3-6.0 bar	60 bar	15
PS05.x.L	1.3 bar	2.6-6.6 bar	60 bar	15
PS05.x.M	2.0 bar	3.0-10.0 bar	130 bar	15

* Connection drawings as per data sheet "Dimensional drawings PS05 – PS08"

Process connection: 1/2" male thread (manometer connection), 1/4" female thread
The PS05 can be screwed to the pressure pipe with the 1/2" male threaded fitting, or alternatively, it can be fixed with 2 screws (4 mm diameter) to a flat surface.

Housing material: die-cast aluminum GD-Al Si 12 (saltwater-proof)

Pressure probe materials: PS05.x.(A...C): Buna N membrane sensor housing 1.4301
PS05.x.(D...F): metal bellows Cu Zn sensor housing Cu Zn
PS05.x.(G...M): metal bellows 1.4571 sensor housing 1.4104

Electrical Specifications:

Connection: plug connector

Protection type: IP54 in vertical mounting position

The PS05.1.A should only be fitted upwards in the vertical position, all other models can be installed in the vertical and horizontal positions, whereby the vertical mounting position is preferred.

Switch rating: 250 VAC, 8A (ohmic),
5A (inductive)
250 VDC, 0.3A (ohmic)
24 VDC, 8A (ohmic)

Contacts: single-pole changeover contact (SPDT)

Ordering Code:

Order Number:

PS05. 1. K

Pressure switches for non-corrosive liquids and gases

Hysteresis

1 = hysteresis not adjustable (A - M)
2 = hysteresis adjustable (D - M)

Operating ranges

A = 1 to 16 mbar
B = 4 to 25 mbar
C = 10 to 100 mbar
D = 0.04 to 0.25 bar
E = 0.1 to 0.6 bar
F = 0.2 to 1.6 bar
G = 0.2 to 2.5 bar
H = 0.5 to 6 bar
I = 1 to 10 bar
J = 3 to 16 bar
K = 4 to 25 bar
L = 8 to 40 bar
M = 16 to 63 bar

Technical Specifications:

Switching range: see table

Max. pressure: see table
Max. gas/liquid temp.: -25°C to +70°C
(+85°C, short time only)

Pressure setpoint: the setting spindle can be adjusted with a screwdriver from outside

Repeatability: < 1% of working range
(for pressure ranges > 1 bar)

Adjustment: the scale value corresponds to the lower switching point, the upper switching point is higher by the amount of the hysteresis

Anti-tamper sealing: available ex factory upon request, but subsequent sealing may also be done in the field if necessary.

Vacuum: all model PS05 devices may be operated under vacuum, the device will NOT be damaged as a result

Vibrations: no appreciable deviations up to 4g.
The hysteresis is slightly reduced at higher accelerations.
Deployment above 25g is unapproved.

Options: gold-plated contacts,
2 microswitches, ex proof model,
MIN / MAX limiter