Pressure switches for Pneumatics
- 0,025 to 25 bar

- **Microswitch with gold-plated contacts (silver plated for field mounting)**
- **Electrical connection: Connector acc. to DIN 43650 or terminal in combination with cable gland acc. to DIN 46320 or NPT thread**



Ordering example

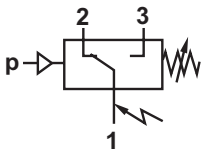
See page 2

Technical Data

Fluid:
Neutral gases and liquids (water, hydraulic oil, lubricants, light gas oil)
Mounting:
Optional
Port sizes:
G 1/4 female, 1/4 NPT female
Operating pressure:
– 0,025 to 25 bar
Ambient temperature:
-10 °C to +60 °C
-10 °C to +80 °C (field)
Operating viscosity:
Max. 1000 mm^2/s
Fluid temperature:
0 °C to +80 °C
Maximum temperature at switching element:
+80 °C
Sealing:
> 10^{-7} mbar · l · s^{-1}
Repeatability:
±1% of final value (referred to pressure control)
Vibrations/Shock: max. 5 Hertz / 4 g /sinosoidal
To be avoided
Switching cycles:
max. 10/minute
Degree of protection:
IP65
Materials:

Housing –	aluminium die cast
	aluminium die cast, tin plated (field)
Sensor –	Steel 1.0333
	St. st. 1. 4305/1.4301
	Brass

Sealing:
Plastic diaphragm (Perbunan) or Viton (FKM)
Electrical connection/sensor combinations:
See table overleaf



Switching function:

Microswitch SPDT
Terminals 1-3:
Contacts close on rising pressure
Terminals 1-2:
Contacts open on rising pressure

General Information / Selection criteria

The catalog number is composed of:

18 **H** **XX** **YY**

- **YY**: Sensor variation with related/available electrical and fluid connections
- **XX**: Pressure range and related switching differences
- **H**: 1 = fixed switching difference (hysteresis); 0 = adjustable switching difference (hysteresis)
- **18**: Identification of 20 D

Order example:
for a pressure switch with a set point of 150 mbar rising, fixed switching difference, G 1/4 female connection suitable for water in an indoor location, electrical connection Pg 13,5 order part number **1812805**

Pressure range codes (XX) for 181 models (fixed switching difference)

XX Code	Pressure range (bar)	Over Pressure (bar)	Switching pressure differences lower range (bar)	uper range (bar)
25	0 – 0,025	0,5	0,003	0,004
26	0 – 0,06	0,5	0,004	0,006
27	0 – 0,16	0,5	0,004	0,008
28	0 – 0,25	0,5	0,004	0,009
41	0,05 – 0,6	15	0,03	0,06
42	0,05 – 1,0	15	0,03	0,09
43	0,05 – 1,6	15	0,03	0,12
44	0,05 – 2,5	15	0,04	0,15
45	0,3 – 4	40	0,2	0,4
46	0,3 – 6	40	0,3	0,5
47	0,5 – 10	40	0,3	0,6
48	1 – 16	50	0,4	1,2
49	1 – 25	50	0,4	1,5

Special pressure ranges

Bar	Part no.
– 0,025 to 0	18H25YY.0000.010.00
– 0,060 to 0	18H26YY.0000.010.00
– 0,160 to 0	18H27YY.0000.010.00
– 0,250 to 0	18H28YY.0000.010.00
– 0,025 to 0,025	18H25YY.0000.020.00
– 0,060 to 0,060	18H26YY.0000.020.00
– 0,160 to 0,160	18H27YY.0000.020.00

Pressure range codes (XX) for 180 models (adjustable switching difference)

XX Code	Pressure range (bar)	Over Pressure (bar)	Switching pressure differences lower range (bar)	uper range (bar) Minimum	Maximum
25	0 – 0,025	0,5	0,008	0,011	0,025
26	0 – 0,06	0,5	0,009	0,015	0,04
27	0 – 0,16	0,5	0,011	0,023	0,12
28	0 – 0,25	0,5	0,011	0,028	0,2
41	0,05 – 0,6	15	0,09	0,16	0,5
42	0,05 – 1,0	15	0,11	0,18	0,8
43	0,05 – 1,6	15	0,13	0,25	1,2
44	0,05 – 2,5	15	0,14	0,25	2,0
45	0,3 – 4	40	0,5	0,8	2,0
46	0,3 – 6	40	0,6	1,0	4,0
47	0,5 – 10	40	0,6	1,1	6,0
48	1 – 16	50	1,2	2,5	12,0
49	1 – 25	50	1,2	3,3	20,0

Sensor variation codes (YY) for part no. 18H25 - 18H28

YY Code	Material	Electrical connection	Fluid connection	Extras
00	Steel/1.0333 / NBR	DIN 43650*	G1/4 female	-
03	Steel/1.0333 / NBR	1/2 NPT	1/4 NPT-F	-
05	Steel/1.0333 / NBR	Pg 13,5	G1/4 female	-
06	Steel/1.0333/NBR	Pg 16	G1/4 female	-
10.0000.001.00	1.4305/1.4301/FKM	DIN 43650*	G 1/4 female	-
11.0000.001.00	1.4305/1.4301/FKM	Pg 16	G 1/4 female	outdoor**
15.0000.001.00	1.4305/1.4301/FKM	Pg 13,5	G1/4 female	-

* Connector not within scope of supply. If required pls.order separately 0570110
** Water proof

Sensor variation codes (YY) for part no. 18H41 - 18H49

YY Code	Material	Electrical connection	Fluid connection
00	Brass/NBR	DIN 43650*	G1/4 female
03	Brass/NBR	1/2 NPT	1/4 NPT-F
05	Brass/NBR	Pg 13,5	G1/4 female
06	Brass/NBR	Pg 16	G1/4 female