PS20

Electronic Pressure Switch

- **measuring range from -0,6...0 to 0...1000 bar**

- **switching output relay with changeover contact**

- **red LED for switching indication**

- **accuracy: +/- 0,5 % of nominal range**

- **easy mounting**

- **switch point adjustment via magnet or HART®-Tool**

- **material in contact with medium: st. steel 1.4571**

Description:

The low-cost electronic pressure switch of the PS20 series measures the pressure via a piezoresistive measuring point with high precision and a long service life at the same time.
A switching output (relay with changeover contact) is used for electronic limit value control.
Due to the large measuring ranges from -0.6 to 1000 bar, the various process connections and the robust design, a very flexible use in almost all industrial processes is possible.

Typical applications:

Due to its versatility, the pressure switch can be used very universally. Application examples:
- vacuum technology (pump control),
- gas technology (supply and leakage monitoring)
- filter monitoring (contamination detection)
- mechanical engineering
- plant engineering
- process and procedure engineering

Technical Data:

Process connection:	different, see order code
Media temperature:	-30...+100 °C
Ambient temperature:	-20...+80 °C 0...80 °C compensated
Storage temperature:	-40...+85 °C
Accuracy:	+/- 0,5 % of m.v.
Mounting position:	any
Materials:	housing / cover: PBT GF30 lens: PMMA medium contact.: st. steel 1.4571 transmission fluid: synthetic oil (without at meas. range > 25 bar)
Weight:	ca. 230 g
Protection class:	at least IP65 (electronics)

Electrical Data:

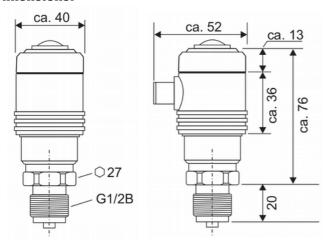|	
Sensor:	piezoresistive
Auxiliary power:	24 … 30 VDC, 35 mA
Switching relays:	1 changeover contact
Switching current:	1 A, 30 VDC (ohmic load) 0,3 A, 125 VAC (ohmic load)
Max. switching capacity:	30 W or 37,5 VA (ohmic load)
LED signalling:	LED lights up: relay active LED dark: relay inactive
Switching point adjustment:	with a magnet (included in delivery)
Switching delay:	0 s, (standard); customized: 0...99,9 s
Hysteresis:	1 % of m.v. (standard)
Damping:	0 s (standard); customized: 0...99,9 s
Switching cycles:	>10 million
Electrical connection:	round plug M12x1, 8-pin 3-wire

Dimensions:

Order Code:

Order number:	PS20.	R.	1.	16.	W.	W.	0

Electronic pressure switch

Pressure type:
R = relative pressure
A = absolute pressure

Process connection:
1 = G 1/2 male (EN 837, manometer connection)
2 = G 1/4 male (EN 837, manometer connection)
3 = G 1/4 male (DIN 3852 E)
4 = 1/2" NPT male
5 = 1/4" NPT male
9 = special connection

Measuring range:
16...88, see table „Measuring Ranges"

Switching output:
W = 1 changeover contact

Configuration:
0 = factory setting (see below)
K = customer specific (please specify)

Options:
0 = without
1 = please specify in plain text

Accessories:

PVC cable **SM12** with M12 plug, 8-pin
HART®-Tool: Modem with HART® cable, USB cable, software

Factory Setting:

Switching point:	50 % of m.v.
Hysteresis:	1 % of m.v.
Switching delay:	0 s
Damping:	0 s

Measuring Ranges:

Order code	Meas. range* [bar]	Pressure type	Overload limit [bar]
16	-1...0	relative	5
46	-1...9	relative	35
63	0...0,1	relative	1
64	0...0,16	relative	1,5
65	0...0,25	abs./rel.	2
66	0...0,4	abs./rel.	2
67	0...0,6	abs./rel.	4
69	0…1	abs./rel.	5
70	0…1,6	abs./rel.	10
72	0…2,5	abs./rel.	10
73	0…4	abs./rel.	17
74	0…6	abs./rel.	35
75	0…10	abs./rel.	35
76	0…16	abs./rel.	80
78	0…25	relative	50
79	0…40	relative	80
80	0…60	relative	120
81	0…100	relative	200
82	0…160	relative	320
84	0…250	relative	500
86	0…400	relative	800
87	0…600	relative	1200
88	0…1000	relative	1500

* other vacuum ranges on request