

Electronical pressure switch MagSwitch

One or two adjustable switching outputs
or
One adjustable switching output
with adjustable hysteresis



Discription

The compact electronic pressure switch MagSwitch provides pressure monitoring. Adjusting screws are used to set the switching point under pressure. Integrated LEDs indicate the current switching state. The principle of non-impact measurement based on the Hall-effect ensures a pressure switch with high level of repeatability and durability, even in case of a high number pressure cycles.

The contact functions (normally open / normally closed) and the contact types (p-switching / n-switching) are available as optional extras. Switching currents ranging from a few micro amps to 100 mA allow the MagSwitch to be easily integrated into almost any control system. The adjustable hysteresis enables to build up 2 point controllers easily without any additional external components.

A pressure connection free of elastomers qualifies the MagSwitch for many liquid and gaseous media. The metal diaphragm can also be used without any problem for simultaneously occurring pressure and vacuum.

Features

- non - contact measurement
- long - life cycle
- very good repeatability
- one or two switching outputs
- simple adjustment of the set points
- status LED indication
- compact design
- pressure connection in brass
- p- or n-switching

Measuring ranges

- positive adjustment ranges
from 0.005 up to 600 bar
- vacuum ranges up to -900 mbar

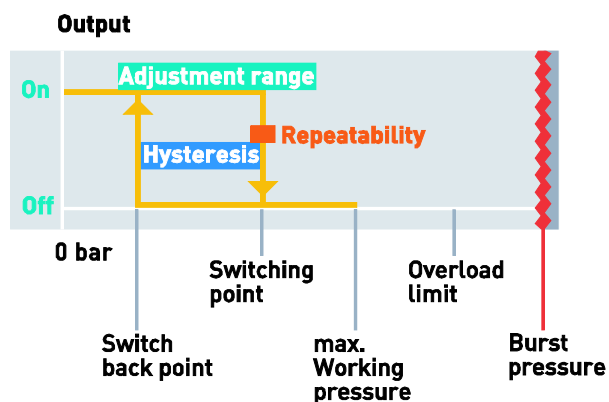
Applications

- mechanical engineering
- vacuum technology
- refrigeration technology
- filter monitoring
- level measurement
- building technology

Model: S1100, S1200

Adjustment ranges

Model	Adjustment range [bar]	Switching point [bar] increasing pressure	Reset point [bar] decreasing pressure	Hysteresis [%]	Overrange limit [bar]	Burst pressure [bar]	Sensor element	
S1100	Negative overpressure							Diaphragm
	-0.1 ... 0	-0.095...0	-0.1 ...-0.005	5	0.4	4		
	-0.16 ... 0	-0.152 ...0	-0.16...-0.008	5	0.6	6		
	-0.25 ... 0	-0.237 ...0	-0.25...-0.013	5	1.0	10		
	-0.4 ... 0	-0.38 ...0	-0.4 ...-0.020	5	1.6	16		
	-0.6 ... 0	-0.57 ...0	-0.6 ...-0.030	5	2.4	24		
	-0.9 ... 0	-0.85 ...0	-0.9 ...-0.050	5	4.0	40		
	positive gauge pressure							
	0 ... 0.1	0.005...0.1	0 ... 0.0995	5	0.4	4		
	0 ... 0.16	0.008...0.16	0 ... 0.152	5	0.6	6		
	0 ... 0.25	0.013...0.25	0 ... 0.237	5	1.0	10		
	0 ... 0.4	0.02 ... 0.4	0 ... 0.38	5	1.6	16		
	0 ... 0.6	0.03 ... 0.6	0 ... 0.57	5	2.4	24		
	0 ... 1	0.05... 1	0 ... 0.95	5	4.0	40		
	0 ... 1.6	0.08... 1.6	0 ... 1.52	5	6.0	60		
	0 ... 2.5	0.13... 2.5	0 ... 2.37	5	10	100		
0 ... 4	0.2 ... 4	0 ... 3.8	5	16	160			
0 ... 6	0.3 ... 6	0 ... 5.7	5	24	240			
0 ... 10	0.5 ... 10	0 ... 9.5	5	30	300			
0 ... 16	1.6 ... 16	0 ... 14.4	10	32	320			
0 ... 25	2.5 ... 25	0 ... 22.5	10	40	400			
S1200	0 ... 40	2 ... 40	0 ... 38	5	80	120	Bourdon tube	
	0 ... 60	3 ... 60	0 ... 57	5	120	180		
	0 ... 100	5 ... 100	0 ... 95	5	200	300		
	0 ... 160	8 ... 160	0 ... 152	5	320	480		
	0 ... 250	13 ... 250	0 ... 237	5	500	750		
	0 ... 400	20 ... 400	0 ... 380	5	800	1200		
	0 ... 600	30 ... 600	0 ... 570	5	1000	1500		

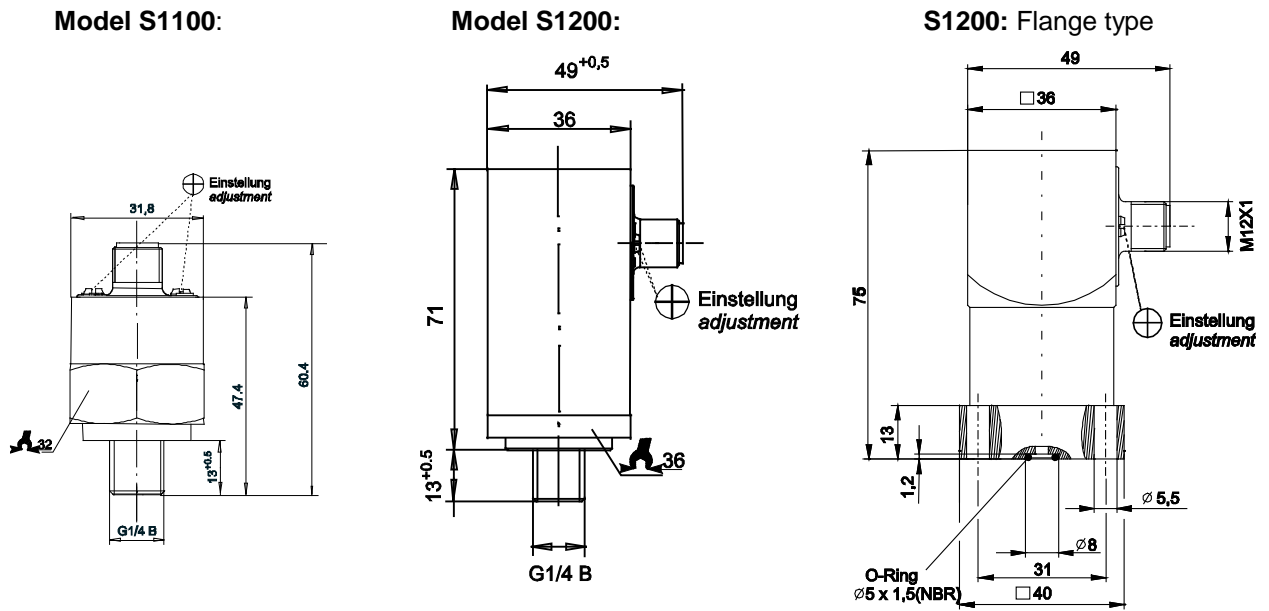


The contact switches when the switching point is reached. The hysteresis determines the switch back point. The switching point can be modified within the adjustment range. Both the switching point and the switch back point have to be within the adjustment range. If there are several pressure cycles, all switching points are within the specified reproducibility. Dynamic loads up to the overload limit may be applied to the pressure switches. If the overload limit is exceeded, the pressure switch will be damaged. If the burst pressure is exceeded, even for short periods, the pressure switch will be destroyed.

Technical data

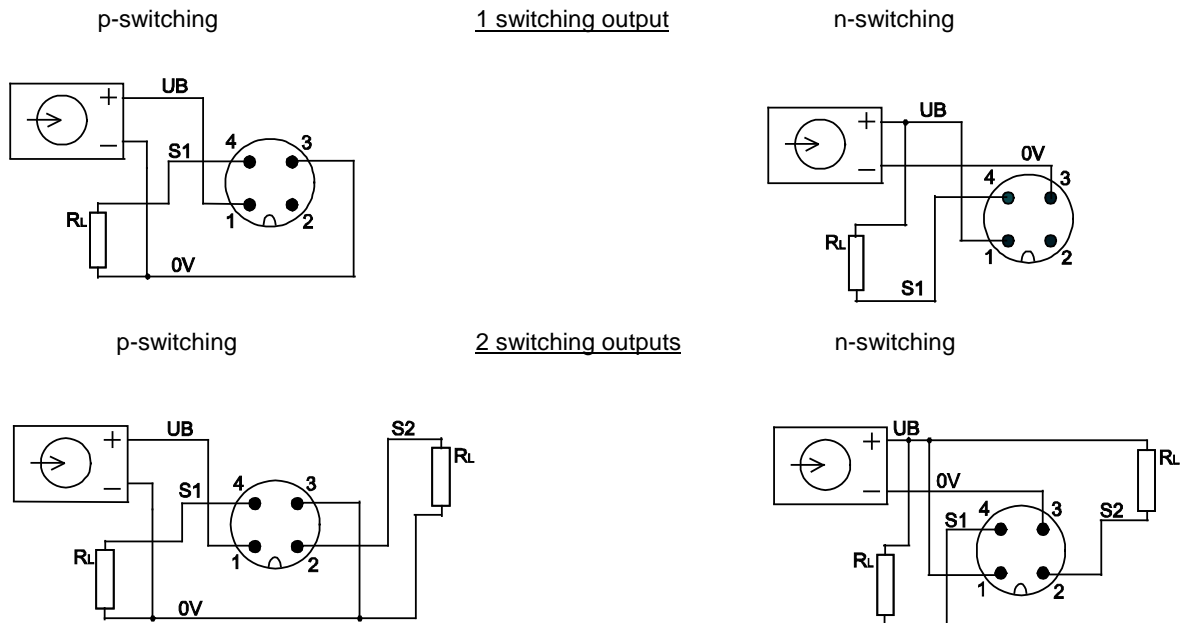
Model	S1100	S1200
Execution	Diaphragm	Bourdon tube
Pressure type Standard Optional	Positive or negative gauge pressure Positive and negative gauge pressure	
Pressure connection Standard Optional	G1/4 B G1/8 B, 1/4NPT, 1/2NPT, only S1200: flange type	
Measuring principle	Hall - effect	
Materials Measuring element Pressure connection Housing Electronic insert	Ni - and Cu - alloy Brass Brass Plastic	Stainless steel Brass Anodized aluminium Plastic
Load cycles	1 million pressure cycles	
Supply voltage	10 ... 30 V DC	
Power consumption	≤ 25 mA (without load current)	
Switching outputs Number Switching function Standard Optional Power rating	1 or 2 separately adjustable or 1 switching point with adjustable hysteresis Normally open, normally close p - switching n - switching 0.1 A	
Adjustment Set point Hysteresis Standard Optional	Locally by adjustment screw (0) 5 ... 100 % of full scale ≤ 5 % of full scale For adjustment ranges 16 and 25 bar: ≤ 10 % of full scale Adjustable hysteresis: 5 ... 95 % of full scale	
Accuracy	1 % of full scale (limit point calibration)	
Repeatability	1 % of full scale	
Temperature ranges Storage Media Ambient	-30 ... + 80 °C -20 ... + 80 °C -20 ... + 70 °C	
Temperature compensated range	0 ... + 80 °C	
Temperature influence	+ 0.4 % of full scale per 10 K	
Electrical connection	Round connector M12x1; 4 - pin	
Protection class	IP65	
CE	Emission and interference acc. to EN 61 326	
Electrical protection	Over voltage protection	
Weight	Approx. 0.09 kg	Approx. 0.27 kg

Dimensions [mm]



Electrical connections

Round connector M12 x 1 (4-pin)



Connection for plug and cable outlet

Signal	Pin	Cable outlet
Supply: UB	1	Brown
Supply: 0V	3	Blue
Switching output: S 1	4	Black
Switching output: S 2	2	White

We recommend our accessories:

M12x1 cable socket with 2 m wire

Straight version, order no.: EZE53X011010

Angled version, order no.: EZE53X011011

Subject to technical alterations