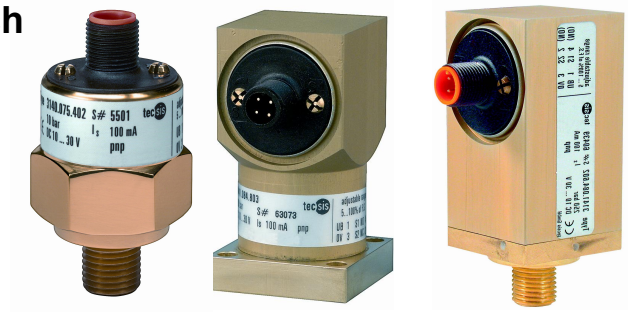
Electronical pressure switch MagSwitch

II 3G Ex nA II T4
II 3D IP65 T120°C



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

Discription

The compact electronic pressure switch **MagSwitch** provides pressure monitoring within the hazardous area in zone 2 (gas-ex, category 3G) or zone 22 (dust-ex, category 3D).

The adjusting screws are used to set the switching point whilst under pressure. Integrated LEDs indicate the current switching state.

The principle of non-contact measurement based on the Hall-effect produces a pressure switch which has a high level of repeatability and durability, even in the case of a high number of 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 every control system.

The adjustable hysteresis enables to build up 2-position controllers easily without any additional external components.

The 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

- O non-contact measurement
- O long-life cycle
- O very good repeatability
- O one or two switching outputs
- O simple adjustment of the switching points
- O status LED-indication
- O compact design
- O installation in zone 2
- O installation in zone 22
- O pressure connection in brass or stainless steel
- O p- or n-switching

Measuring ranges

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

Applications

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

Model: S1110, S1210

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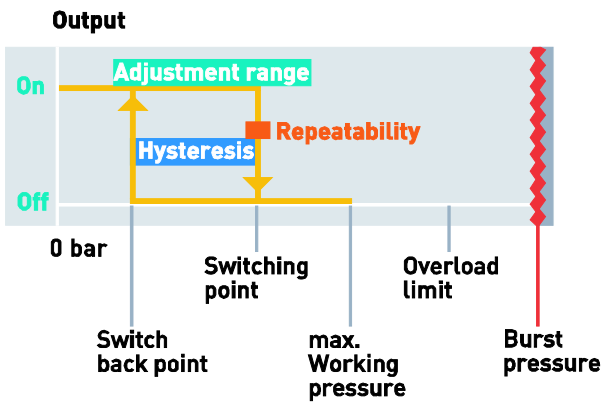
Adjustment range

Model	Adjustment range [bar]	Switch point [bar] rising pressure	Reset point [bar] falling pressure	Hysteresis [%]	Overload limit [bar]	Burst pressure [bar]	Measuring element
S1110	**negative gauge pressure**						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	10	
	-0,4…0	-0,38 ... 0	-0,4…-0,02	5	1,6	16	
	-0,6…0	-0,57 ... 0	-0,6…-0,03	5	2,4	24	
	-0,9…0	-0,85 ... 0	-0,9…-0,05	5	4	40	
	postive 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	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	40	
	0 ... 1,6	0,08 ... 1,6	0 ... 1,52	5	6	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	
S1210	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	1200	1500	



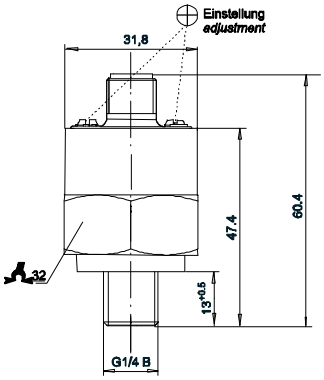
The contact switches when the switching point is reached. The hysteresis determines the switch back point. The switching point can be modified within the adjusting range. The adjusting range can be set such that the swi tching point and the switch back point are within the adjusting range. If there are several cycles, all switching points can be reproduced. Pressure switches may be subjected to dynamic loading up to the maximum working pressure. Isolated brief periods of peak pressure are permitted up to the overload limit. If the burst pressure is exceeded, even for short periods, the pressure switch will be destroyed.

Technical data

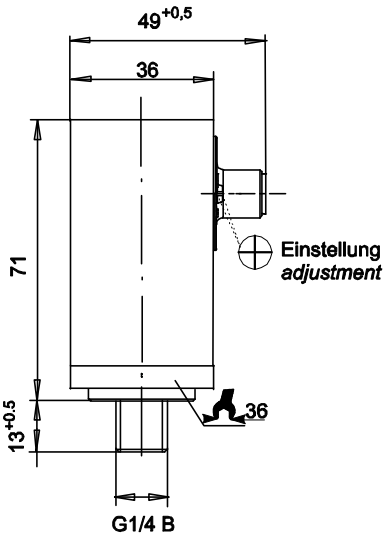
Model	S1110	S1210
Execution	Diaphragm	Bourdon tube (from 40 bar version)
Pressure type Standard Optional	 Positive or negative gauge pressure Positive and negative gauge pressure	
Pressure connection Standard Optional	 G1/4 B G1/8 B, 1/4NPT, M10x1,M12x1.5 G1/2 B, 1/2NPT, S1200: flange type	
Measuring principal	Hall-Effect	
Materials Measuring element Pressure connection Housing Electronic insert	 Ni- and Cu-alloy Brass Brass Plastic	 Stainless steel Brass Gold anodized aluminium Plastic
Load cycles	1 M. 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 Normally open, normally close p-switching n-switching 0.1 A	
Adjustment Set point Hysteresis Standard Optional	With adjustment screw locally (0) 5 ... 100 % of full scale value ≤ 5 % of full scale value for adjustment ranges 16 and 25 bar ≤ 10% of full scale value Hystersis adjustable: 5…95 % of full scale value	
Accuracy	1 % of full scale value (terminal point adjustment)	
Repeatability	1 % of full scale value	
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 value per 10K	
Electrical connection Standard	 Round connector M 12 x 1; 4-pin	
Protection class Standard	 IP 65	
CE -sign	emission and interference acc. To EN 61 326 declaration of conformity on request	
ATEX approval	 II 3G Ex nA II T4  II 3D IP65 T120°C	
Electrical protection	Reverse polarity and over voltage protection	
Weight	Approx. 0.09 kg	Approx. 0.27 kg

Case dimensions [mm]

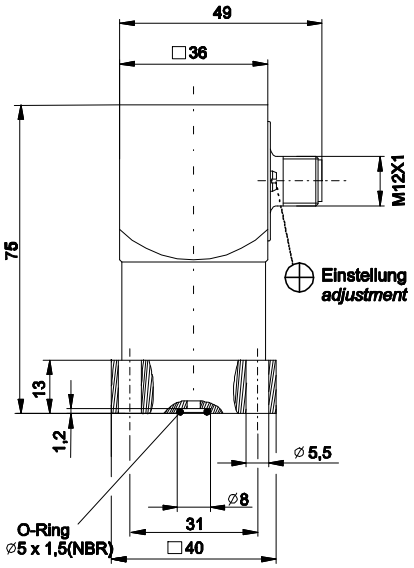
Model S1100:



Model S1200:



S1200: Flange type



Electrical connections

Round connector M 12 x 1 (4-pin)

p-switching — 1 switching output — n- switching

p- switching — 2 switching output — n- switching

Connection for plug and cable outlet

Signal	Pin	Cable outlet (accessories)
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 2m wire

- Straight version, order no.: EZE53X011010
- Angled version, order no.: EZE53X011011

Subject to technical alterations