

Electronical pressure switch MagSwitch S1500

Differential pressure measuring for filter monitoring
on Hall-effect principle,
with LED display
1 switching- and 1 analogue output



Discription

The principle of non-impact 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 big LED-display shows the actual differential pressure. The individual adjustment of the switching point is program based. Integrated LEDs provide information on the switching status. The differential pressure is submitted via the analogue output signal for further processing.

MagSwitch for differential pressure measuring is especially shaped for filter monitoring. The pre- and post-filter pressure is measured separately and displayed as a differential pressure. On keystroke pressure values are displayed separately

The pressure switch offers one switching output. Switching currents from μA up to 100 mA allow the integration of the MagSwitch in nearly any controlling process. Switching point, NC and NO can be programmed individually.

Features

- non-impact measurement
- long-live cycle
- very good repeatability
- simple adjustment
- status LED-indication
- display of static pressure

Measuring ranges

- Differential pressure 0.125...3 bar
- Static pressure 1...16 bar

Applications

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

Model: S1500

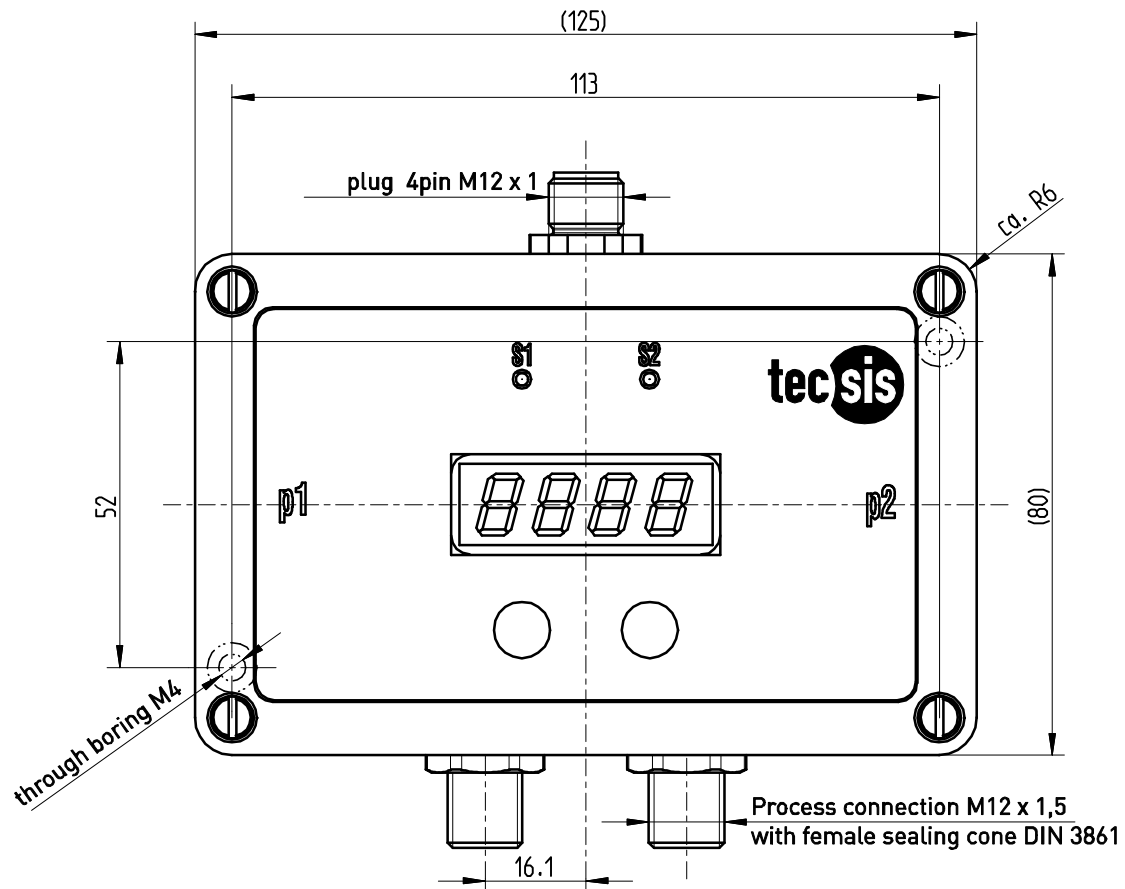
Technical data

Model	S1500
Execution	Diaphragm
Pressure type	Differential pressure
Pressure connection direction Standard Option	bottom (+ left, - right) beside (+ left, - right) top (+ left, - right)
Measuring principal	Hall-effect
Materials Measuring element Pressure connection Housing	Ni- and Cu- alloy Brass cast aluminium
Load cycles	1 M. pressure cycles
Supply voltage	12... 30 VDC
Power consumption	≤ 70 mA (without load current)
Switching outputs Number Switching function Power rating	NO, NC (programmable) 1 p-switching 0.1 A
Adjustment Set point Hysteresis	5... 100 % of full scale value (programmable) factory setting
Analogue output Number Signal Load Accuracy	1 0...10 VDC ≥ 10 kΩ ±1 % referred to indicated value
Display 4 digits Accuracy differential pressure static pressure	7- segments -LED, red, 10 mm high -999... 9999 ± (3 % of full scale + 1 Digit) ± (1 % of full scale + 1 Digit)
Repeatability	± 1 % of full scale
Temperature ranges Storage Media Ambient	-30... + 80°C -20... + 80°C -20... + 70°C
Temperature compensated range	0... + 70°C
T_k	± 0.4 % of full scale / 10 K
Electrical connection	Round connector M 12x1, 4-pin
Protection class	IP 65 according to IEC 529
CE - sign	Emission and interference according To EN 61 326, declaration of conformity on request
Electrical protection	Reverse polarity and over voltage protection
Weight	Approx. 0.7 kg

Differential pressure	Static pressure	Overload limit
125...500 mbar	1 bar	3 bar
200...800 mbar	1.6 bar	4 bar
0.5...2 bar	4 bar	10 bar
1.25...3 bar	10 bar	20 bar
2...3 bar	16 bar	24 bar

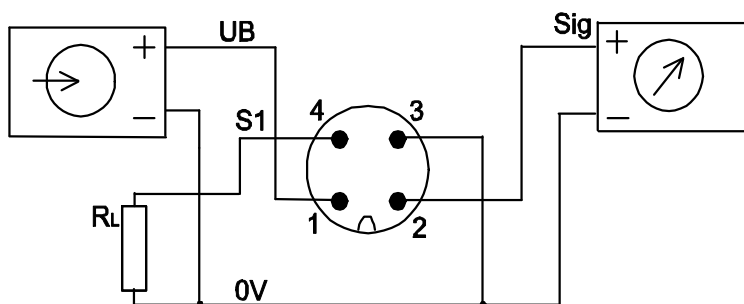
Other ranges of pressure on request

Dimensions (front, housing height 57 mm)



Electrical connection

Round connector M12 x 1 (4-pin)



Connection scheme for connector or cable outlet

Signal	Pin	Colour of optional wires
Supply: UB	1	Brown
Supply: 0V	3	Blue
Switching output: S 1	4	Black
Analogue output	2	White

We recommend our accessories:

M12x1 cable socket with 2m wire

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

Function scheme and programming routine

Operating modes

On power on the switch performs an **initialisation routine**. The display and the status LEDs are switched on. The nominal pressure is displayed for a short time. During this routine the outputs are not active.

After this initialisation the switch is in **normal operation mode**. The differential pressure is displayed, the switching outputs are active and the LEDs display the status.

The **set point** is **displayed** after a short push of S1 and S2. For this time the display is blinking.

A short push of each of the buttons indicates the static pressure (high / low pressure). For this time the display is blinking.

Programming mode

The programming mode is entered by simultaneously pressing both buttons longer than 3 seconds. This mode allows a complete setup of the switch.

