



## Electronic Pressure Switch EDS 410

(Minimum order quantity 50 pieces)

### Description:

The electronic pressure switch EDS 410 has been specially developed for use in volume production machines, and is based on the EDS 4000 pressure switch series.

The EDS 410 is available with 1 or 2 transistor switching outputs (PNP), which can be defined as either N/C or N/O.

The switching and switch-back points of the EDS 410 are factory-set according to customer specification. As with the EDS 4000 standard model, the EDS 410 has a ceramic measurement cell with thick-film strain gauge for measuring relative pressure in the low pressure range, and a stainless steel measurement cell with thin-film strain gauge for measuring in the high pressure range.

Various pressure ranges between 0 .. 1 bar and 0 .. 600 bar as well as different electrical and mechanical connection types are available.

### Special features:

- 1 or 2 transistor switching outputs (PNP), either as N/C or N/O
- Factory-set according to customer specification
- Accuracy  $\leq \pm 1\%$  FS
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Excellent long-term characteristics

### Technical specifications:

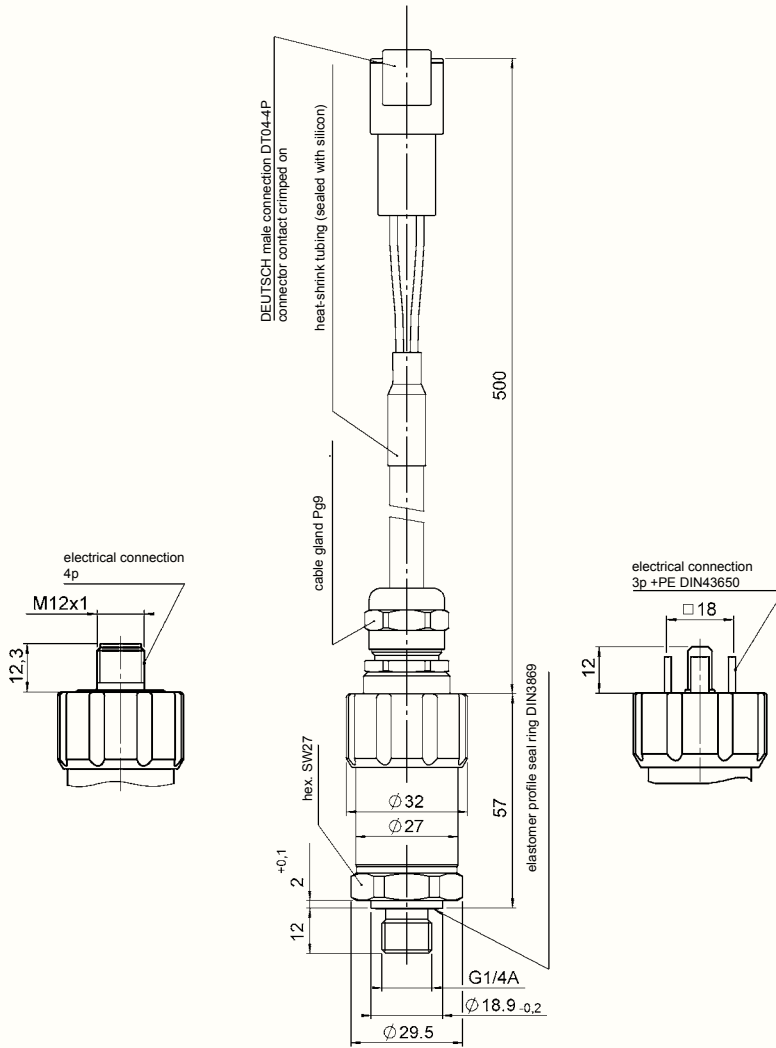
Input data	
Measuring ranges	-1 .. 9; 1; 2.5; 6; 10; 16; 25; 40; 60; 100; 250; 400; 600 bar
Overload pressures	30; 3; 8; 18; 30; 48; 80; 120; 200; 200; 500; 800; 1000 bar
Burst pressure	50; 5; 12; 30; 50; 80; 120; 180; 500; 500; 1000; 2000; 2000 bar
Mechanical connection*	G1/4 A DIN 3852
Torque value	20 Nm
Parts in contact with medium	Mech. connection: Stainless steel Sensor cell: Ceramic or stainless steel Seal: FPM or EPDM
Output data	
Switching output	1 or 2 PNP transistor switching output (N/C or N/O)
Output load	1.2 A per switching output
Switching points	according to customer specification
Switch-back points	according to customer specification
Accuracy to DIN 16086, Max. setting	$\leq \pm 0.5\%$ FS typ. $\leq \pm 1\%$ FS max.
Repeatability (at 25 °C)	$\leq 0.1\%$ FS max.
Temperature drift	$\leq \pm 0.03\%$ FS / °C max. zero point $\leq \pm 0.03\%$ FS / °C max. range
Response and reset delay	8 ms to 2000 ms (standard 32 ms); perm. pre-set according to customer spec.
Long-term drift	$\leq \pm 0.3\%$ FS typ. / year
Ambient conditions	
Compensated temperature range	-25 .. +85 °C
Operating temperature range	-40 .. +85 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range	-40 .. +100 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	$\leq 20$ g
Shock resistance to DIN EN 60068-2-29 (1 ms)	$\leq 100$ g
Protection class to DIN 40050	IP 65 IP 67 (M12x1, when an IP 67 connector is used)
Other data	
Electrical connection*	e.g. DIN 43650 M12x1 (4 pole) Flying leads
Supply voltage	8 .. 32 V DC
Residual ripple of supply voltage	$\leq 5\%$
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	approx. 145 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override, short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

\* Other connection options available on request.

## Dimensions (examples):



## Note:

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

## Ordering Details:

The electronic pressure switch EDS 410 has been specially developed for OEM customers and is available for minimum order quantities of 50 pieces per type. For exact specification, please contact the Sales Department of HYDAC ELECTRONIC.

**HYDAC ELECTRONIC GMBH**  
 Hauptstraße 27, D-66128 Saarbrücken  
 Telephone +49 (0)6897 509-01  
 Fax +49 (0)6897 509-1726  
 E-Mail: [electronic@hydac.com](mailto:electronic@hydac.com)  
 Internet: [www.hydac.com](http://www.hydac.com)