HYDAC INTERNATIONAL

Pressure Switch
EDS 410
for series applications

Customised designs thanks to diverse electrical and mechanical connections
Up to 2 switching outputs

Description:

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

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

The switch and switch-back points of the EDS 410 are factory-set acc. to customer specification (not field-adjustable). As with the EDS 4000 standard model, the EDS 410 has a ceramic measurement cell with thick-layer strain gauge for measuring relative pressure in the low pressure range, and a measurement cell with thin-film strain gauge on a stainless steel membrane 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.

Technical data:

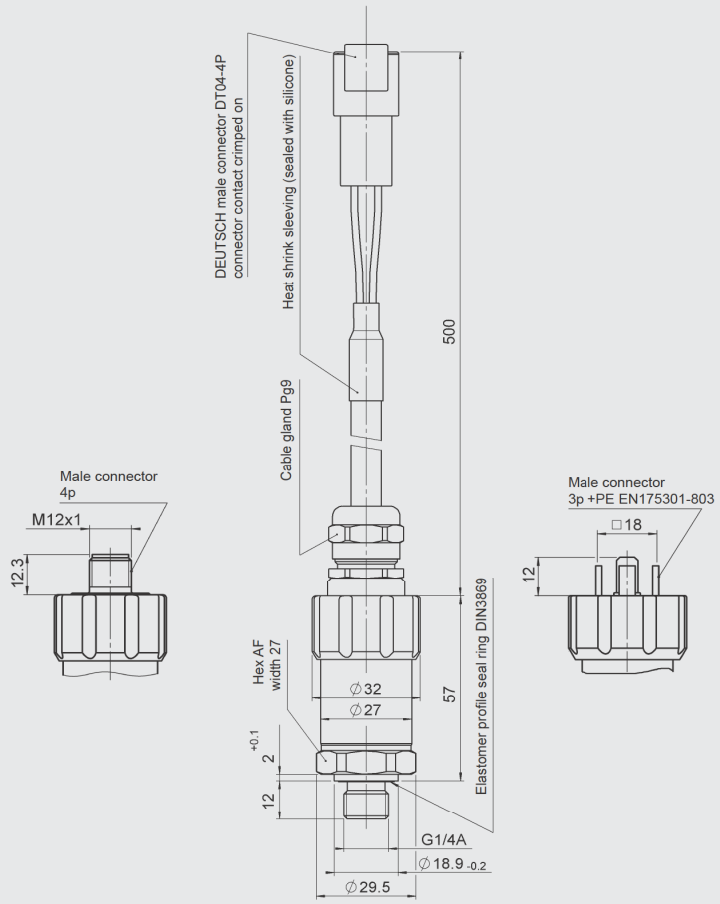
Input data												
Measuring ranges	bar	1	2.5	6	10	16	40	60	100	250	400	600
Overload pressures	bar	3	8	18	30	48	80	120	200	500	800	1000
Burst pressure	bar	5	12	30	50	80	180	300	500	1250	2000	2000
Mechanical connection[1]		G1/4 A ISO 1179-2										
Tightening torque, recommended		20 Nm										
Parts in contact with fluid		Mech. connection: Stainless steel Sensor cell: Ceramic or stainless steel Seal: FKM or EPDM (as per model code)										
Output data												
Switching outputs		1 or 2 transistor outputs PNP or NPN Switching current: PNP: max. 1.2 A with 1 switching output max. 1 A each with 2 switching outputs NPN: max. 0.5 A with 1 switching output max. 0.3 A each with 2 switching outputs Switching cycles: > 100 million Switch points/switch-back points: acc. to customer specification Switch-on and switch-off delay: 8 .. 2000 ms (standard 32 ms); factory-set acc. to customer specification										
Accuracy acc. to DIN 16086, terminal based		≤ ± 0.5 % FS typ. ≤ ± 1 % FS max.										
Temperature compensation, zero point		≤ ± 0.02 % FS / °C typ. ≤ ± 0.03 % FS / °C max.										
Temperature compensation, span		≤ ± 0.02 % FS / °C typ. ≤ ± 0.03 % FS / °C max.										
Repeatability		≤ 0.1 % FS max.										
Long-term drift		≤ ± 0.3 % FS typ. / year										
Environmental conditions												
Compensated temperature range		-25 .. +85 °C										
Operating temperature range[2]		-40 .. +85 °C / -25 .. +85 °C										
Storage temperature range		-40 .. +100 °C										
Fluid temperature range[2]		-40 .. +100 °C / -25 .. +100 °C										
CE mark		EN 61000-6-1 / 2 / 3 / 4										
Vibration resistance acc. to DIN EN 60068-2-6 at 10 .. 500 Hz		≤ 20 g										
Shock resistance acc. to DIN EN 60068-2-27 (1 ms)		≤ 100 g										
Protection class acc. to DIN EN 60529[3]		IP 65 IP 67										
Other data												
Electrical connection[1]		e.g. EN175301-803 M12x1 (4 pole) jacketed cable										
Supply voltage		8 .. 42 V DC										
Residual ripple of supply voltage		≤ 5 %										
Current consumption		≤ 25 mA with inactive switching outputs ≤ 1.225 A with 1 switching output ≤ 2.425 A with 2 switching outputs										
Weight		~ 145 g										

Note: Reverse polarity protection of the supply voltage, overvoltage, override and short circuit protection are provided.
FS (**F**ull **S**cale) = relative to complete measuring range

[1] Additional connection options available on request
[2] -25 °C with FKM or EPDM seal, -40 °C on request
[3] With mounted mating connector in corresponding protection class

EN 18.352.3/02.18

Dimensions:



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.

Order 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 precise specifications, please contact the Sales Department of HYDAC ELECTRONIC.