

HYDAC INTERNATIONAL



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 reset points of the EDS 410 are factory-set according to customer specification (not field-adjustable).

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 (not field-adjustable)
- Accuracy $\leq \pm 1\%$ FS
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Excellent durability

Technical data:

Input data	
Measuring ranges	1; 2.5; 6; 10; 16; 40; 60; 100; 250; 400; 600 bar
Overload pressures	3; 8; 15; 20; 32; 80; 120; 200; 500; 800; 1000 bar
Burst pressures	5; 12; 30; 48; 75; 180; 300; 500; 1000; 2000; 2000 bar
Mechanical connection ²⁾	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	
Switch output	1 or 2 PNP transistor switching outputs (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)	$\leq \pm 0.1\%$ FS max.
Temperature drift	$\leq \pm 0.03\%$ FS / °C max. zero point $\leq \pm 0.03\%$ FS / °C max. range
Rising switch point and falling switch point delay	8 ms to 2000 ms (standard 32 ms); factory-set according to customer spec.
Long-term drift	$\leq \pm 0.3\%$ FS typ. / year
Environmental conditions	
Compensated temperature range	-25 .. +85 °C
Operating temperature range ¹⁾	-40 .. +85 °C / -25 .. +85 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range ¹⁾	-40 .. +100 °C / -25 .. +100 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 20 g
Shock resistance to DIN EN 60068-2-29 (1 ms)	≤ 100 g
Protection class to IEC 60529	IP 65 IP 67 (M12x1, when an IP 67 connector is used)
Other data	
Electrical connection ²⁾	e.g. EN175301-803 (DIN 43650) M12x1 (4 pole) Flying lead
Supply voltage	8 .. 32 V DC
Residual ripple of supply voltage	$\leq 5\%$
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	~ 145 g

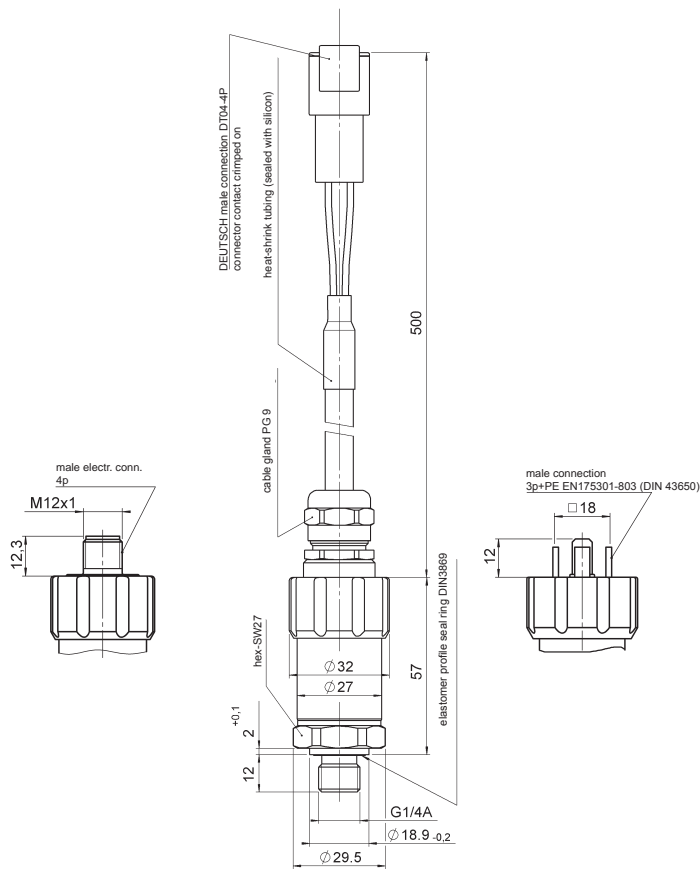
Note: Reverse polarity protection of the supply voltage, excess voltage, override, short-circuit protection are provided.

FS (Full Scale) = relative to the full measuring range

¹⁾ -25 °C with FPM or EPDM seal, -40 °C on request

²⁾ 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.

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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.