



Electronic Pressure Switch EDS 810

(Minimum order quantity 500 units)

Description:

The electronic pressure switch EDS 810 has been specially developed for use in volume production machines.

The highly compact unit has a very robust pressure sensor with thin-film strain gauge on a stainless steel membrane.

The transistor switching output is available with either N/C or N/O function.

The switching and switch-back point of the EDS 810 is factory-set according to customer specification.

Various pressure ranges between 0.. 40 bar and 0 .. 600 bar are available.

Special features:

- Accuracy $\leq \pm 1\%$ FS
- Outstanding performance in terms of temperature effect and EMC
- Very compact design
- ECE type approval (E13) (approved for road vehicles)

Technical specifications:

Input data	
Measuring ranges	40; 60; 100; 160; 250; 400; 600 bar
Overload pressures	80; 120; 200; 320; 500; 800; 1000 bar
Burst pressures	200; 300; 500; 800; 1250; 2000; 2000 bar
Mechanical connection (Torque value)	G1/4 A DIN 3852 (20 Nm) 7/16-20 UNF 2A (15 Nm) 9/16-18 UNF 2A (20 Nm) each with orifice 0.5 mm
Parts in contact with medium	Mech. connection: Stainless steel Seal: FPM
Output data	
Switching output	Either: - 1 PNP or NPN transistor switching output - 2 PNP transistor switching outputs (only in conjunction with electrical connection M12x1, 4 pole)
Switching direction	N/C / N/O function (according to customer specification)
Output load	≤ 500 mA per switching output
Switching points	according to customer specification
Switch-back points	according to customer specification
Accuracy to DIN 16086	$\leq \pm 0.5\%$ FS typ.
Max. setting	$\leq \pm 1\%$ 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); perm. pre-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	-40 .. +100 °C
Storage temperature range	-40 .. +100 °C
Fluid temperature range	-40 .. +125 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
UL mark*	Certificate No.: E 318391
Vibration resistance to DIN EN 60068-2-6 at 5 .. 2000 Hz	≤ 25 g
Shock resistance to DIN EN 60068-2-27	100 g / 6 ms / half sine 500 g / 1 ms / half sine
Protection class to DIN 40050	IP 67 or IP 69 K (depending on the electrical connection)
Other data	
Electrical connection	M12x1, 4 pole AMP DIN 72585 code 1, 3 pole Packard Metri Pack series 150, 3 pole Deutsch DT 04, 3-pole AMP Superseal, 3 pole AMP Junior Power Timer, 3 pole Flying leads, 1 m cable length DIN 43650, 3 pole
Supply voltage for use acc. to UL spec.	8 .. 32 V DC - limited energy - according to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950
Current consumption	max. 0.520 A total max. 20 mA with inactive switch output
Residual ripple of supply voltage	$\leq 5\%$
Life expectancy	> 10 million cycles 0 .. 100 % FS
Weight	approx. 55 g

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

FS (Full Scale) = relative to complete measuring range

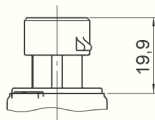
* Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1

Dimensions:

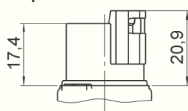
Male connection
DIN 72585
3 pole



Male connection
Metri-Pack series 150
3 pole



Male connection
Deutsch DT 04
3 pole



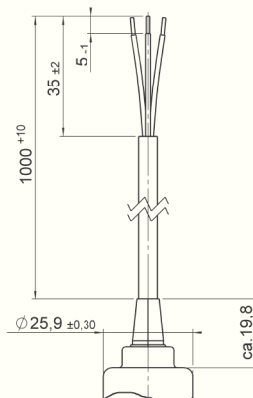
Male connection
Junior Power Timer
3 pole



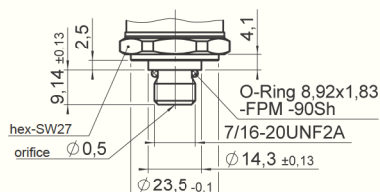
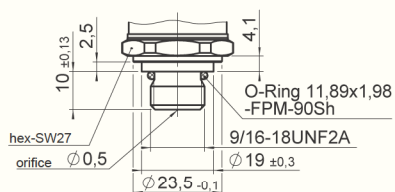
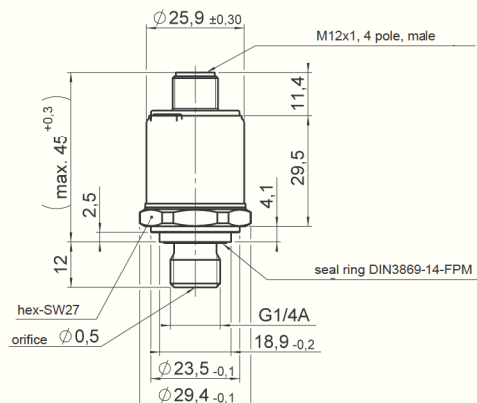
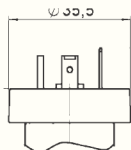
Male connection
Superseal series 1.5
3 pole



Flying leads



Male connection
DIN 43650
3 pole



Note:

The information in this brochure relates to the operating conditions and applications described.
For applications and operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

Order details:

The electronic pressure switch EDS 810 has been specially developed for OEM customers and is available for minimum order quantities of 500 pieces per type.
For exact specification, please contact the Sales Department of HYDAC ELECTRONIC.

HYDAC