



Electronic Pressure Switch EDS 410

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 -14.5 .. 75 psi and 0 .. 9000 psi 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 $\leq \pm 0.5\%$ FS B.F.S.L.
- Highly robust sensor cell
- Very small temperature error
- Excellent EMC characteristics
- Excellent durability

Technical data:

| Input data | |
|--|---|
| Measuring ranges | 14.5 to 75; 15; 30; 50; 100; 150; 250; 500; 1000; 1500; 3000; 5000; 6000; 9000 psi |
| Overload pressures | 290; 45; 100; 150; 290; 450; 725; 1160; 2900; 2900; 7250; 11600; 11600; 14500 psi |
| Burst pressures | 400; 70; 150; 250; 400; 650; 1000; 2900; 7250; 7250; 14500; 29000; 29000; 29000 psi |
| Mechanical connection ²⁾ | SAE 6, 9/16-18 UNF 2A G1/4 A DIN 3852 (15 lb-ft; 20 Nm) |
| Torque value | 15 lb-ft (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 -13 °F) | $\leq \pm 0.1\%$ FS max. |
| Temperature drift | $\leq \pm 0.017\%$ FS / °F max. zero point $\leq \pm 0.017\%$ FS / °F 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 | -13 .. +185 °F |
| Operating temperature range ¹⁾ | -40 .. +185 °F / -13 .. +185 °F |
| Storage temperature range | -40 .. +212 °F |
| Fluid temperature range ¹⁾ | -40 .. +212 °F / -13 .. +212 °F |
| 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 |

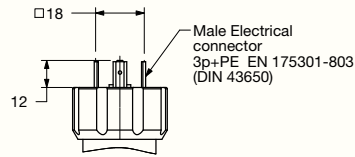
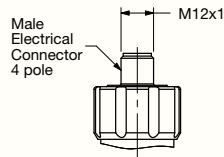
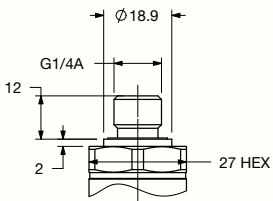
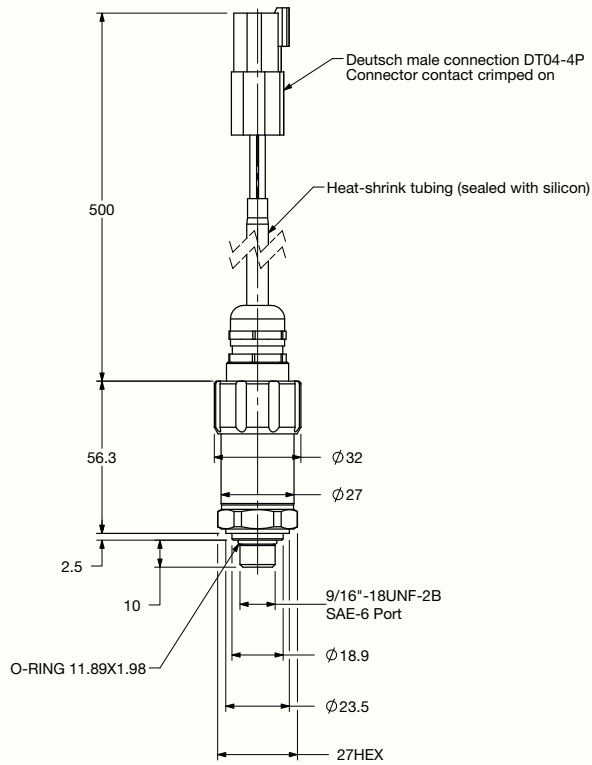
Note: Reverse polarity protection of the supply voltage, excess voltage, override, short-circuit protection are provided.

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

1) -13 °F with FPM or EPDM seal, -40 °F on request

2) Other connection options available on request.

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.

For bar ranges see European Catalog

Order details:

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

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