Electronic Pressure Switch

EDS 410

Programmable

CSA Explosion Proof

C US

Description:

The programmable pressure switch EDS 410 in **CSA Explosion Proof** version has been specially developed for the North American market for use in potentially explosive atmospheres and is based on the EDS 4000 series.

The switching point and switch-back point, the function of the switching outputs as N/C or N/O and the switching delay are user-programmable.

As with the industry model, the programmable EDS 410 in **CSA Explosion Proof** version has a stainless steel measurement cell with thin-film strain gauge for measuring relative pressure in the high pressure range.

Intended areas of application are, for example, in the oil and gas industry, on gas turbines or in locations with high levels of dust, e.g. in mills.

Protection types and zones:

- Class I
  Division 1
  Group A, B, C, D, T6, T5 [C, US]
- Class II,
  Div. 1
  Group E, F, G [C, US]
- Class III [C, US]
- Type 4 [C, US]

Special features:

- Accuracy ≤ ± 0.5 % FS typ.
- Certificate: CSA 1826717
- Option of PNP or NPN switching outputs
- High switching output capacity
- Very small temperature error
- Excellent EMC characteristics
- Excellent long-term properties

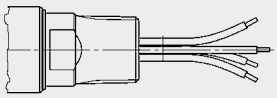
Technical specifications:

Input data		
Measuring ranges*	6; 16; 60; 100; 250; 400; 600 bar	
Overload pressures	15; 32; 120; 200; 500; 800; 1000 bar	
Burst pressure	100; 100; 300; 500; 1000; 2000; 2000 bar	
Mechanical connection	1/4-18 NPT	
Torque value	40 Nm	
Parts in contact with medium	Sensor:	Stainless steel
	Mech. connection:	< 40 bar 1.4542; 316L ≥ 40 bar 316L; 1.4435; 1.4571; 1.4404
	Seal:	FPM
Output data		
Switching output	1 or 2 PNP or NPN switching outputs	
Output load	1.2 A per switching output	
Switching points	User-programmable	
Switch-back points	User-programmable	
Accuracy to DIN 16086, Max. setting	≤ ± 0.5 % FS typ. ≤ ± 1 % FS max.	
Repeatability	≤ ± 0.5 % FS max.	
Temperature drift	≤ ± 0.03 % FS / °C max. zero point ≤ ± 0.03 % FS / °C max. range	
Response and reset delay	User-programmable	
Long-term drift	≤ ± 0.3 % FS max.	
Ambient conditions		
Compensated temperature range	T6: -25 .. +60 °C T5: -25 .. +80 °C	
Operating temperature range	T6: -40 .. +60 °C T5: -40 .. +80 °C	
Storage temperature range	-40 .. +100 °C	
Fluid temperature range	T6: -25 .. +60 °C T5: -25 .. +80 °C	
mark	Certificate No.: CSA 1826717	
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz	≤ 20 g	
Protection class to DIN 40050	IP 67	
Other data		
Supply voltage	12 .. 30 V DC Fuse: 5 A, normal or slow	
Current consumption	+ 25 mA	
Residual ripple of supply voltage	≤ 5 %	
Life expectancy	> 10 million cycles 0 .. 100 % FS	
Weight	approx. 280 g	

Note: Reverse polarity protection of the supply voltage, excess voltage, override, short circuit protection are provided.
FS (**F**ull **S**cale) = relative to the complete measuring range
* psi pressure ranges on request

Pin connections:

Conduit



Wire	Assignment
red	$+U_B$
white	Switching output
black	0 V
green	SDA *

* Programming line

Areas of application:

Protection class	Explosion Proof Gases and Dusts
Certificate	**CSA 1826717**
Zones / Categories	- Class I Division 1 Group A, B, C, D T6, T5 - Class II Division 1 Group E, F, G - Class III - Type 4
Electrical connection	9

Model code:

EDS 4 1 0 –XXXX – P – E 001 XXX

Pressure ranges in bar
0006; 0016; 0060; 0100; 0250; 0400; 0600

Type of output
P = Programmable

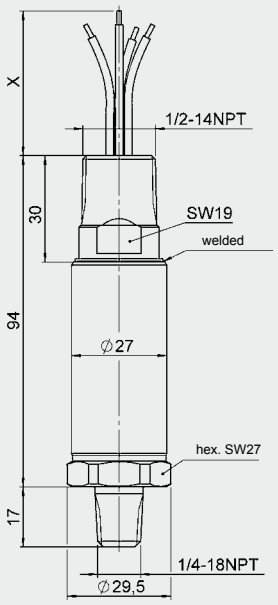
Approval
E = Explosion Proof

Modification number *
001 = Standard

Cable length in cm
Standard = 122 cm (48 inch)

Note:
* On units with a different modification number, please read the label or the technical amendment details supplied with the unit.

Dimensions:



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.

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
Internet: www.hydac.com