EDS 1700 Series **Pressure Switch with Display**



Description

The EDS 1700, with its integrated pressure measuring cell, a 4-digit display and the 4 switching outputs, offers the user all the advantages of a modern electronic pressure switch.

4 switching points and reset points can be adjusted very simply and independently of each other using the keypad.

For optimum incorporation into monitoring systems (e.g. with PLC), an analog output (4 to 20 mA or 0 to 10 V) is also available.

The main applications of the EDS 1700 are in hydraulics and pneumatics. The instrument is ideal for use where frequent switching cycles (several million) require permanent switching point accuracy for simple and precise adjustment

Special Features

- Integrated pressure sensor with strain gauge on stainless steel membrane
- Accuracy 0.25% or 0.5% BFSL •
- 4-digit digital display .
- User-friendly key programming
- 4 limit relays, switching points and reset points can be adjusted independently
- Analog output signal selectable
- Many useful additional functions
- Optional mounting position (pressure connection on the top/bottom, keypad and display can be turned through 180°)
- Can be set to display values in any unit of measurement e.g.: kN, kg, psi, ...

Approvals

CE mark is a mandatory conformity mark on many products placed on the single market in the European Economic Area



Technical Details

Sensor Specifications		
Measuring ranges - psi	232, 580, 1450, 3625, 5800, 8700	
Overload pressure - psi	464, 1160, 2900, 7250, 11600, 14500	
Burst pressure - psi	2900, 2900, 7250, 14500, 29000, 29000	
Mechanical connection	G1/4A DIN 3852, female	
Tightening torque	15 lb-ft (20 Nm)	
Parts in contact with media	Stainless steel	
Accuracy (B.F.S.L.) including linearity, hysteresis, and repeatability	≤ ±0.25% BFSL (EDS 1700-P) ≤ ±0.5% BFSL (EDS 1700-N)	
Temperature drift EDS 1700-N zero point & range EDS 1700-P	$ \begin{array}{ll} \leq \pm 0.0.0085\% \ / \ FS \ typ. & \leq \pm 0.017\% \ / \ FS \ max. \\ \leq \pm 0.006\% \ / \ FS \ typ. & \leq \pm 0.012\% \ / \ FS \ max. \end{array} $	
Long-term drift	≤ ± 0.3% FS typ. / year	
Life expectancy	10 million load cycles (0 to 100% FS)	
Weight	Approximately 800 g	
Output signal	4 to 20 mA, ohmic resistance \leq 400 Ω 0 to 10 V, ohmic resistance \geq 2 k Ω	
Switching Specifications		
Туре	4 relays with change-over contacts in 2 groups (common supply of each group connected)	
Repeatability	≤ ±0.25% FS max. (EDS 1700-P) ≤ ±0.5% FS (EDS 1700-N)	
Switching voltage	100mV to 250 V (AC or DC)	
Switching current	0.009 to 2A (per output)	
Switching power	max. 50 W / 400 VA (for inductive load use varistors)	
Set point range	1.5 to 100% FS	
Reset point range	1 to 99% FS	
Switching cycles	> 20 million at minimum load > 1 million at maximum load	
Reaction time	< 20 ms	
Environmental Condition		
Compensated temperature range	-14° to 158°F (-10° to 70°C)	
Operating temperature range	-13° to 140°F (-25° to 60°C)	
Storage temperature range	-40° to 176°F (-40° to 80°C)	
Media temperature range	-13° to 176°F (-25° to 80°C)	
CE mark	EN 61000-6-1 / 2 / 3 / 4	
Vibration resistance to DIN EN 60068-2-6 at 10 to 500 Hz	≤ 5g	
Environmental protection	IP 65	
Electrical Specifications		
Supply voltage	22 to 32 VDC	
Residual ripple suppy voltage	≤ 10%	
Current consumption	approximately 200 mA	
Electrical connection	14-pole terminal block	
Reverse polarity protection of the supply voltage, excess voltage, override and short	Standard	
circuit protection	7 segment LED display, 4 digits, 13 mm high	

(HYDAC) INNOVATIVE FLUID POWER

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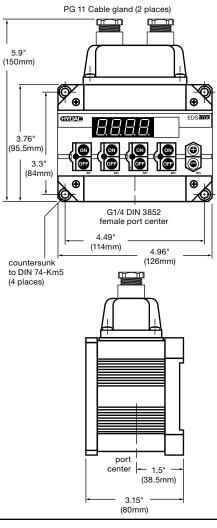
Model Code

<u>EDS 17</u> 9 X - X - XXXX - 000

Pin Connections

Pin	
1	+U _B
2	0 V
3	Analog output signal +
4	Analog output signal -
5	Relay 1 N/C
6	Relay 1 N/C
7	Center relay 1 and 2
8	Relay 2 N/C
9	Relay 2 N/O
10	Relay 3 N/C
11	Relay 3 N/O
12	Center relay 3 and 4
13	Relay 4 N/C
14	Relay 4 N/O

Dimensions



Mechanical Connection 9 = G 1/4 DIN 3852 female port

Display 2 = 4 digit psi

Accuracy -

P = 0.25% B.F.S.L. N = 0.5% B.F.S.L.

Pressure Range –

For EDS 1792X only (*4 digit psi*) 016 (232), 040 (580), 100 (1450), 250 (3625), 400 (5800), 600 (8700) bar (psi)

Modification Number

000 = Standard