

EDS 4400 Series High Pressure Programmable Switch



Applications



Description

The programmable electronic pressure switch in the EDS 4400 series has been specially developed to combine the advantages of a compact, robust and cost-effective unit with the benefits of a programmable pressure switch.

The EDS 4400 can be easily programmed using the HPG 3000 programming unit. When the programming unit is disconnected from the EDS 4400, the pressure switch retains all the settings. This prevents unauthorised adjustment of the settings.

The following parameters can be changed:

- Switching point
- Hysteresis
- Switching direction (N/O / N/C)
- Switching delay times

The EDS 4400 is suitable for high pressure applications (*over 500 psi*) and has a pressure measurement cell with thin-film strain gauge on a stainless steel membrane.

In contrast to pressure switches which are permanently pre-set according to customer requirements, the programmable EDS 4400 is highly versatile and replaces a wide range of models.

Special Features

- Option of 1 or 2 switching outputs
- Option of PNP or NPN switching outputs
- High switching output capacity
- Accuracy $\leq \pm 0.5\%$ BFSL
- Individual programming
- Compact and robust design
- Also available in ATEX version for potentially explosive locations

Approvals

CE 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	1000, 3000, 6000, 9000
Overload pressure - psi	2900, 7250, 11600, 14500
Burst pressure - psi	7250, 14500, 29000, 29000
Mechanical connection	G1/4A DIN 3852 male (<i>bar ranges only</i>) SAE 6 9/16-18 UNF 2A (<i>psi ranges only</i>)
Tightening torque	15 lb-ft (20 Nm)
Parts in contact with media	Stainless steel, FPM seal
Accuracy (B.F.S.L.) including linearity, hysteresis, and repeatability	$\leq \pm 0.5\%$ BFSL
Temperature compensation zero point	$\leq \pm 0.0085\%$ / °F typ. $\leq \pm 0.017\%$ / °F max.
Temperature compensation over range	$\leq \pm 0.0085\%$ / °F typ. $\leq \pm 0.017\%$ / °F max.
Long-term drift	$\leq \pm 0.3\%$ FS typ. / year
Life expectancy	10 million load cycles (0 to 100% FS)
Weight	Approximately 145 g
Switching Specifications	
Type	PNP or NPN output
Repeatability	$\leq \pm 0.1\%$ FS max.
Switching current	1 Switching output 1.2A 2 Switching outputs 1.0A
Set point / Reset point	Programmed using HPG 3000 Programming Unit
Set point in psi	5 to 100% of full range
Hysteresis in psi	1 to 96% of full range
NO / NC	Programmed using HPG 3000 Programming Unit
Switching cycles	≥ 100 million
Environmental Condition	
Compensated temperature range	-13° to 185°F (-25° to 85°C)
Operating temperature range	-13° to 185°F (-25° to 85°C)
Storage temperature range	-40° to 212°F (-40° to 100°C)
Media temperature range	-40° to 212°F (-40° to 100°C)
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 to 500 Hz	$\leq 20g$
Environmental protection	IP 67 (<i>ZBE 06 molded cable</i>)
Electrical Specifications	
Supply voltage	8 to 32 VDC
Residual ripple supply voltage	$\leq 5\%$
Current consumption	25 mA (<i>plus switching current</i>)
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	Standard

Model Code

EDS 4 4 X X - XXXX - X - P X - 000 (PSI)

Mechanical Connection*

- 4 = G1/4A DIN 3852 male (*bar ranges only*)
- 7 = SAE 6 9/16-18 UNF2A (*psi ranges only*)

Electrical Connection*

- 8 = M12x1 plug, 5 pole (*connector not included*)

Pressure Range

For EDS 4478 (SAE 6 9/16-18 only)
1000, 3000, 6000, 9000 psi

Output

- 1 = 1 Switching Output
- 2 = 2 Switching Outputs

Output Technology

- P = Programmable switching output

Output Type

- P = PNP switching output
- N = NPN switching output

Modification Number

- 000 = Standard

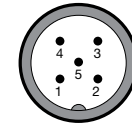
(psi)

psi version (*leave blank for bar version*)

*Other options available upon request

Pin Connections

M12x1, 5 pole



Pin	Process connection	HPG connection
1	+U _B	+U _B
2	Out 2	nc
3	0 V	0 V
4	Out 1	nc
5	nc	COM port

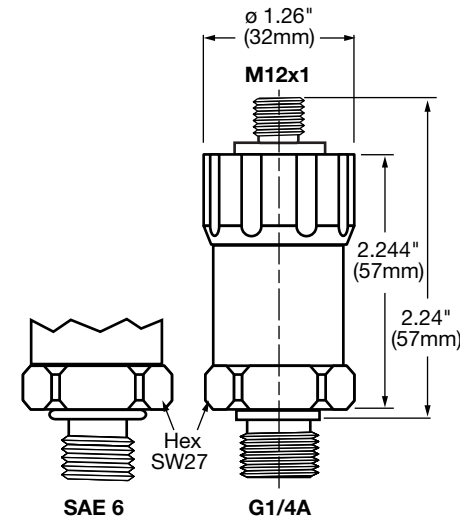
In process a 4 pole mating connector (e.g. ZBE 06) has to be used.

HPG 3000 Programming Unit

Manual available online
Part #00909422



Dimensions



ZBE 30-02

Part #06040851



HPG 3000 Power Supply with Connector

Part #02091103