

# Pressure switch with display PE 827



- Compact, easy to use
- Ranges from -1 ... 0 up to 0 ... 40 bar
- Analogue output 4 ... 20 mA
- 2 Digital outputs

## APPLICATIONS

- Continuous control on hydraulic, pneumatic applications, in vacuum, cooling process; Filter monitoring in the range of -1 ... 0 ... 40 bar

## DESCRIPTION

PE 827 is a robust instrument, with 2 NPN contact outputs and 1 analogue output 4-20 mA. This pressure switch integrates a sensor with a heavy duty ceramic diaphragm. Controlled by microprocessor, it allows the user to easily access the various configuration parameters, such as trigger points and switching functions. Its LED display guarantees perfect readability in all circumstances. It displays the measured value, the parameters, the status of outputs.

This pressure switch has, a reverse polarity protection circuit, and, a short-circuit protection. A diagnostic function is available from the keyboard. This function allows a complete control of the electronics as well as the measuring cell and to take note of the memorized pressure peaks.

## TECHNICAL FEATURES

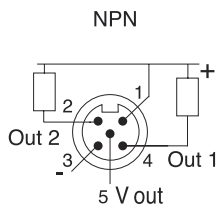
Operating ranges	From -1 ... 0 up to 0 ... 40 bar
Overpressure	Ranges $\leq 10$ bar: 4 times the F.S. Ranges $> 10$ bar: 3.5 times the F.S.
Accuracy	$\pm 1\%$ F.S.
Long-term stability	$\pm 0,3\%$ F.S.
Response time	$\leq 5$ ms
Pressure cycle	$< 100$ Hz

Operating conditions	Compatible liquids and gases
Fluid temperature	$-20 \dots +80$ °C
Ambient temperature	$-20 \dots +80$ °C
Storage temperature	$-40 \dots +80$ °C

Display	4 LED, 7 segments each, for measurement + 2 LED, 1 segment each, for scale unit & status
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Outputs	Analogue (x1): 4-20 mA (terminales 3 y 5) Digital (x2): NO/NC contacts; open collector, 250 mA max
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Power supply	17 ... 33 V DC
Load	4...20 mA: $< 500 \Omega$
Consumption	Max. 50 mA
Electrical protections	Against short circuits and reverse polarity
Connections	Male connector M 12x1 (5-pin)
Protection	IP 65 and IP 67 according to IEC 60529



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**PE 827**

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### Set up

Analogue output	Adjustment by 75 ... 125 % F.S.
Digital outputs	Adjustment on rising pressure: 8 ... 100% F.S. Adjustment on decreasing pressure: 5 ... 97 % F.S. Switching or N.O. or N.F. contact Delay for switch-on and switch-off: adjustable from 0 to 50 s

### Diagnostic function

Manual action From keyboard: Complete controls of electronics, measuring cell, stored pressure peaks

Fitting	BSP 1/4"
	AISI 316 L (1.4404)
Sealing	FPM
Housing	Polyarylamide 50% FV black
Diaphragm	Ceramic Al <sub>2</sub> O <sub>3</sub> 96 %
Mounting	Any position (downward connector not recommended)
Mass	About 120 g

**EC Conformity:** The instrument meets the legal requirements of the current European Directives.

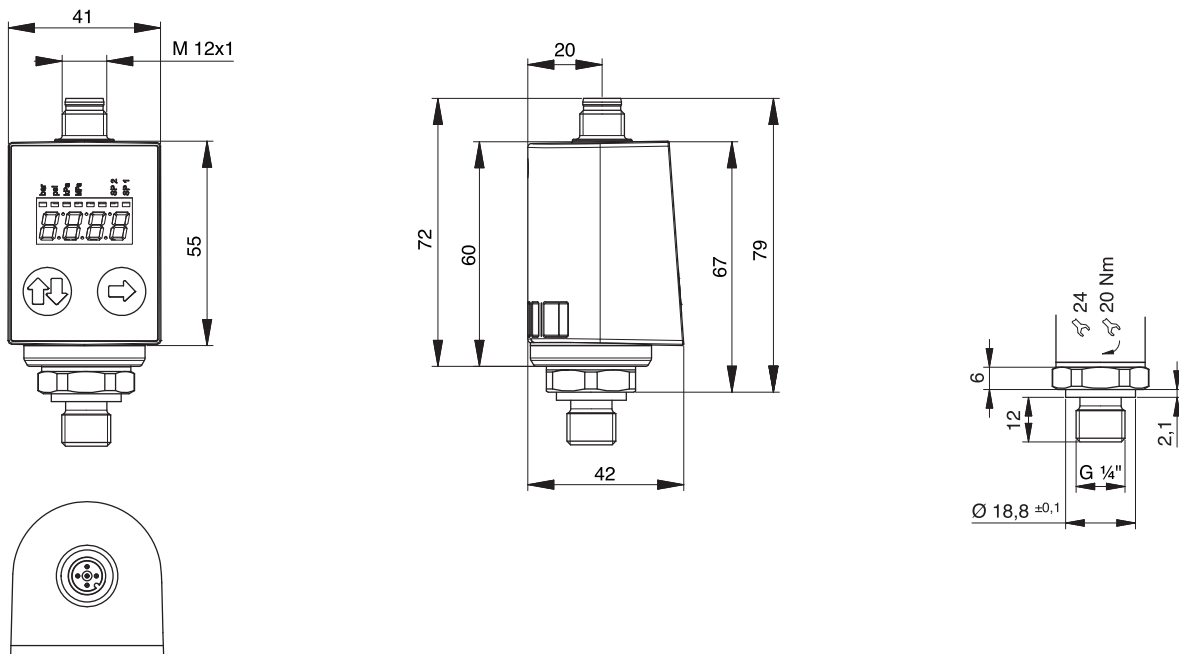
## CODE NUMBERS AND REFERENCES

Code	Reference	Description
827 102	PE 827	Pressure switch with display - Range 0 ... 2.5 bar
827 106	PE 827	Pressure switch with display - Range 0 ... 6 bar
827 110	PE 827	Pressure switch with display - Range 0 ... 10 bar
827 116	PE 827	Pressure switch with display - Range 0 ... 16 bar
827 125	PE 827	Pressure switch with display - Range 0 ... 25 bar
715 998		Connector, elbow, M12 - 5-pin

### Other measuring ranges:

-1 ... 0 ; 0 ... 1 ; 0 ... 40 (barg)

## DIMENSIONS



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