



# Tried-and-tested pressure sensor for a new area of application.



Process connection and measuring cell especially for pneumatic applications.

- Process connection with G 1/8 I thread.
- Two programmable switching outputs or switching and diagnostic output.
- Pressure ranges -1...1 bar or -1...10 bar.
- Variable fixing options via process connection and accessories.
- Option for differential pressure measurement.



## Type PN, especially for pneumatic applications

The pressure sensor PN7, often used in pneumatics, has got some new attributes making it even more suitable for pneumatic applications.

As regards accuracy, the new PN78 with the piezoresistive silicon measuring cell is every bit as good as the sensors having used a ceramic measuring cell so far. Thanks to its construction it allows differential pressure measurements without having to connect a second pressure pick-up.

Due to the new process connection with G 1/8 I thread and numerous fixing holes, the PN78 meets also common pneumatic standards. Another advantage is the higher protection IP 67.



PN78 and accessories connected to a pneumatic maintenance system

fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems



**Process connection G 1/8 I**  
PNP / NPN switching, diagnostic output

Measuring range Relative pressure [bar]	Overload pressure max. [bar]	Bursting pressure min. [bar]	Switch point SP1 / SP2 [bar]	Switch-off point rP [bar]	Increments [bar]	Order no.
-1...1	20	30	-0.97...1	-0.98...0.99	0.005	<b>PN7809</b>
-1...10	20	30	-0.95...10	-0.95...9.95	0.05	<b>PN7834</b>

M12 connector · output function 2 x / programmable or 1 x / + diagnosis

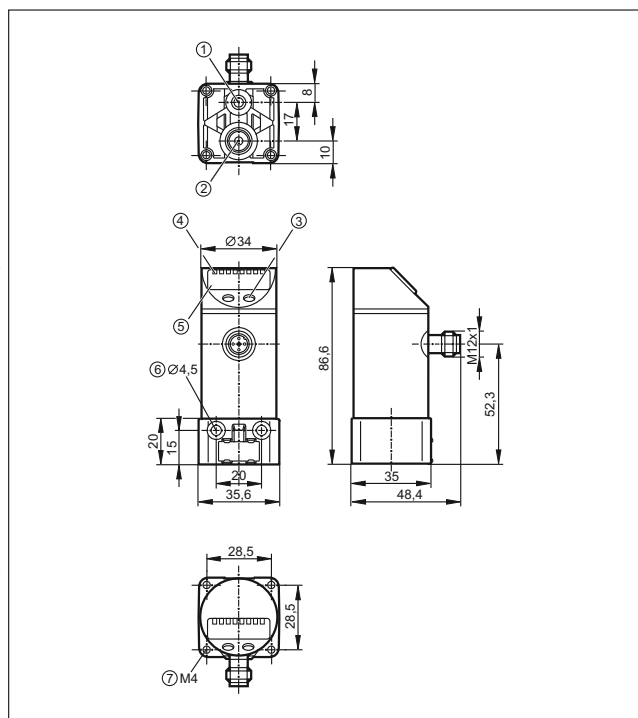
**Accessories**

Type	Description	Order no.
	DIN rail clip with 2 screws	<b>E37340</b>
	Rotatable double nipple	<b>E37350</b>
	T-joint G 1/2, reducer, seal, rotatable double nipple	<b>E37360</b>
	Push-in air fitting for tube, Ø 6 mm	<b>E30076</b>
	Push-in air fitting for tube, Ø 8 mm	<b>E30077</b>

**Common technical data**

Type of pressure: relative pressure Compressed air		
Operating voltage	[V DC]	18...36
Current rating	[mA]	250
Short-circuit protection, pulsed		•
Reverse polarity protection		•
Overvoltage protection		up to 40 V
Integrated watchdog		•
Voltage drop	[V]	< 2
Current consumption	[mA]	< 50
<b>Accuracy / deviation (in % of the span)</b>		
Switch point accuracy		< ± 0.5
Deviation of the characteristics		< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis		< ± 0.25
Repeatability		< ± 0.1
Long-term stability		< ± 0.05
<b>Temperature coefficients (TEMPCO) in the temperature range 0...60 °C (in % of the span per 10 K)</b>		
Greatest TEMPCO of zero		0.2
Greatest TEMPCO of the span		0.2
Power-on delay time	[s]	0.3
Switching frequency	[Hz]	≤ 170
Medium temperature	[°C]	0...60
Protection		IP 67, III
Shock resistance	[g]	50
Vibration resistance	[g]	20
Switching cycles		50 million
Housing materials		stainless steel (304S15), PPS, PC (Makrolon), PBT (Pocan), PEI, FPM (Viton), EPDM/X (Santoprene)
Materials (wetted parts)		high-grade stainless steel (394S17), brass, FPM (Viton), PPS, silicon (plated)
Function display switching status	LED	2 x yellow
Operation	LED	3 x green

**Dimensions**



- 1) ventilation connection
- 2) main pressure connection G1/8, tightening torque max. 8 Nm
- 3) programming button
- 4) LEDs (display unit / switching status)
- 5) 4-digit alphanumeric display
- 6) for mounting screw M4; tightening torque max. 2.5 Nm
- 7) for mounting screw M4; tightening torque max. 2.5 Nm