

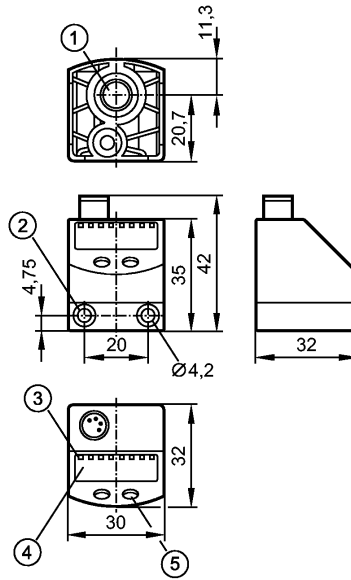


# PQ7809

PQ-1-1-RHR18-QFPKG/AS/



Pressure sensors



- 1: main pressure connection G 1/8; tightening torque max. 8 Nm  
thread length max: 7.5 mm
- 2: for mounting screw M4; max. tightening torque 2.5 Nm
- 3: LEDs (display unit / switching status)
- 4: 4-digit alphanumeric display
- 5: Programming button



## Product characteristics

Electronic pressure sensor

Function programmable

Process connection: G 1/8 I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: -1...1 bar

## Application

Application	Type of pressure: relative pressure Compressed air ****)
Pressure rating [bar]	20
Bursting pressure min. [bar]	30
Medium temperature [°C]	0...60

## Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...32 DC <sup>1)</sup>
Current consumption [mA]	< 50
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes
Oversvoltage protection [V]	up to 40 V

## Outputs



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Pressure sensors

Output	2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output
Output function	2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x normally closed (diagnostic function)
Current rating [mA]	100
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)
Switching frequency [Hz]	≤ 200
<b>Measuring / setting range</b>	
Display unit	bar, kPa, psi, inHg
Measuring range [bar]	-1...1
Setting range	
Set point, SP [bar]	-0.98...1.00
Reset point, rP [bar]	-0.99...0.99
in steps of [bar]	0.01
<b>Accuracy / deviations</b>	
Accuracy / deviations (in % of the span)	
Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.05
Temperature coefficients (TEMPCO) in the temperature range 0...60° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2
<b>Reaction times</b>	
Power-on delay time [s]	0.3
Min. response time switching output [ms]	2.5
Delay time programmable dS, dr [s]	0; 0.002...5
Integrated watchdog	yes
<b>Software / programming</b>	
Programming options	hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit
<b>Environment</b>	
Ambient temperature [°C]	0...70
Storage temperature [°C]	-25...85
Protection	IP 65
<b>Tests / approvals</b>	
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5/1 kV EN 61000-4-6 HF conducted: 10 V
Shock resistance	DIN IEC 68-2-27: 50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6: 20 g (10...2000 Hz)



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Pressure sensors

MTTF	[Years]	455
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### Mechanical data

Process connection	G 1/8 I	
Materials (wetted parts)	brass; FPM (Viton); silicon (coated); PBT (Pocan)	
Housing materials	PBT (Pocan); FPM (Viton); polyester	
Switching cycles min.	50 million	
Weight	[kg]	0.109

### Displays / operating elements

Display	Display unit 4 x LED green Switching status 2 x LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
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### Electrical connection

Connection	M8 connector; gold-plated contacts
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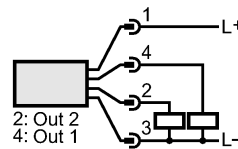
### Wiring

Programming of the output function  
 -----OUT1-----

Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed

-----OUT2-----

Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed  
 diA = diagnostic function (normally closed)



### Accessories

Accessories (optional)	Mounting set for DIN rail TH 35-7.5 to EN60715 (order no. E37340); thread extension G1/8 BSPP (order no. E30075) push-in air fitting for tubes Ø 6 mm (order no. E30076) push-in air fitting for tubes Ø 8 mm (order no. E30077)
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### Remarks

Remarks	1) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in% of the span / 6 months ****) other media on request
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Pack quantity	[piece]	1
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