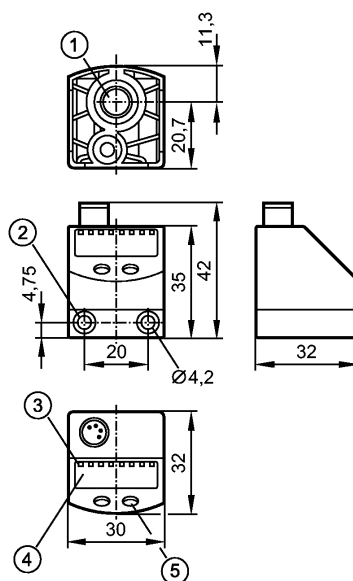


PQ7809

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

Made in Germany


Product characteristics

Electronic pressure sensor

Process connection: G 1/8 I

Display units:

bar, kPa, psi, inHg

Function programmable

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 ¹⁾
Current consumption [mA]	< 50
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes
Overvoltage protection [V]	up to 40 V

PQ7809

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

Pressure sensors

Outputs		
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	pulsed	
Switching frequency [Hz]	≤ 200	
Measuring / setting range		
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	
Accuracy / deviations		
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	
Reaction times		
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	
Software / programming		
Programming options	hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit	
Environment		
Ambient temperature [°C]	0...70	
Storage temperature [°C]	-25...85	
Protection	IP 65	
Tests / approvals		
EMC	EN 61000-4-2 ESD: EN 61000-4-3 HF radiated: EN 61000-4-4 Burst: EN 61000-4-5 Surge: EN 61000-4-6 HF conducted:	4 kV CD / 8 kV AD 10 V/m 2 kV 0.5/1 kV 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)

PQ7809

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

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-----

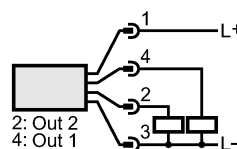
Hno = hysteresis / normally open

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 1/8" (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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