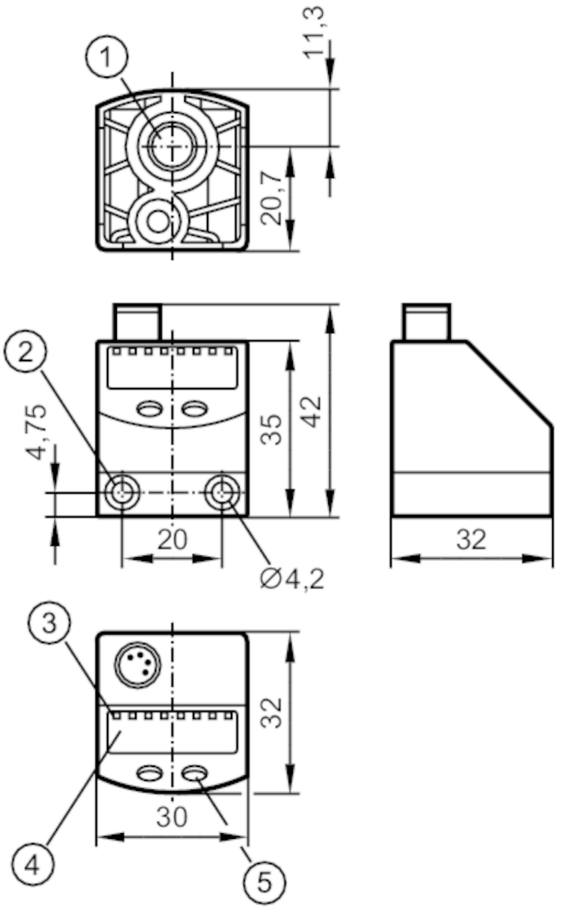
PQ7809

Pressure sensor for pneumatics

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

Article no longer available - archive entry

Alternative articles: PQS816 or PQS819
When selecting an alternative article and accessories please note that technical data may differ!



1 main pressure connection G 1/8 Tightening torque < 8 Nm insertion depth < 7.5 mm
2 Tightening torque < 0.5 Nm
3 LEDs Display unit / switching status
4 alphanumeric display 4-digit
5 programming button

Product characteristics					
Number of inputs and outputs	Number of digital outputs: 2				
Measuring range	-1...1 bar	-1000...1000 mbar	-14.6...14.6 psi	-29.6...29.6 inHg	-100...100 kPa
Process connection	threaded connection G 1/8 internal thread				
Application					
Special feature	Gold-plated contacts				
Application	for industrial applications				
Media	compressed air				
Conditionally suitable for	other media on request				
Medium temperature [°C]	0...60				

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Min. burst pressure	30 bar	435 psi	886 inHg	3000 kPa	
Pressure rating	20 bar	290 psi	591 inHg	2000 kPa	
Vacuum resistance	-1000 mbar		-0.1 MPa		
Type of pressure	relative pressure; vacuum				
Electrical data					
Operating voltage [V]	18...32 DC; (to SELV/PELV)				
Current consumption [mA]	< 50				
Min. insulation resistance [MΩ]	100; (500 V DC)				
Protection class	III				
Reverse polarity protection	yes				
Overvoltage protection	yes; (< 40 V)				
Power-on delay time [s]	0.3				
Integrated watchdog	yes				
Inputs / outputs					
Number of inputs and outputs	Number of digital outputs: 2				
Outputs					
Total number of outputs	2				
Output signal	switching signal				
Electrical design	PNP				
Number of digital outputs	2				
Output function	normally open / normally closed; (parameterisable)				
Max. voltage drop switching output DC [V]	2				
Permanent current rating of switching output DC [mA]	100				
Switching frequency DC [Hz]	< 200				
Short-circuit protection	yes				
Type of short-circuit protection	pulsed				
Measuring/setting range					
Measuring range	-1...1 bar	-1000...1000 mbar	-14.6...14.6 psi	-29.6...29.6 inHg	-100...100 kPa
Set point SP	-0.98...1 bar	-14.2...14.6 psi	-28.8...29.7 inHg	-98...100 kPa	
Reset point rP	-0.99...0.99 bar	-14.4...14.4 psi	-29.1...29.4 inHg	-99...99 kPa	
In steps of	0.01 bar	0.2 psi	0.3 inHg	1 kPa	
Accuracy / deviations					
Switch point accuracy [% of the span]	< ± 0,5				
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)				
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)				
Hysteresis deviation [% of the span]	< ± 0,25				
Long-term stability [% of the span]	< ± 0,05; (per 6 months)				

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Temperature coefficient zero point [% of the span / 10 K]	0,2; (0...60 °C)	
Temperature coefficient span [% of the span / 10 K]	0,2; (0...60 °C)	
Response times		
Response time [ms]	< 2.5	
Delay time programmable dS, dr [s]	0; 0,002...5	
Software / programming		
Parameter setting options	hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit	
Operating conditions		
Ambient temperature [°C]	0...70	
Storage temperature [°C]	-25...85	
Protection	IP 65	
Tests / approvals		
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)
MTTF [years]	455	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	85	
Housing	rectangular	
Dimensions [mm]	42 x 30 x 32	
Materials	PBT; FKM; polyester	
Materials (wetted parts)	brass; FKM; silicon (coated); PBT	
Min. pressure cycles	50 million	
Process connection	threaded connection G 1/8 internal thread	
Displays / operating elements		
Display	Display unit	4 x LED, green
	switching status	2 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	bar; kPa; psi; inHg	
Accessories		
Accessories (optional)	mounting set for DIN rail: TH 35-7,5 / EN60715, E37340	
	Thread extension: 1/8", E30075	
	push-in air fitting for tube: Ø 6 mm, E30076	
	push-in air fitting for tube: Ø 8 mm, E30077	

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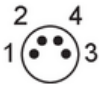
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Remarks

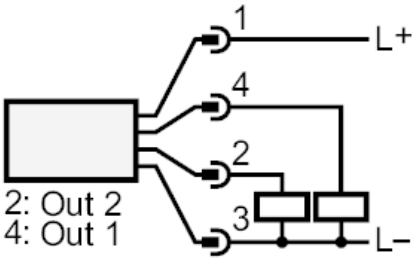
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M8; coding: A; Contacts: 4, gold-plated



Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output