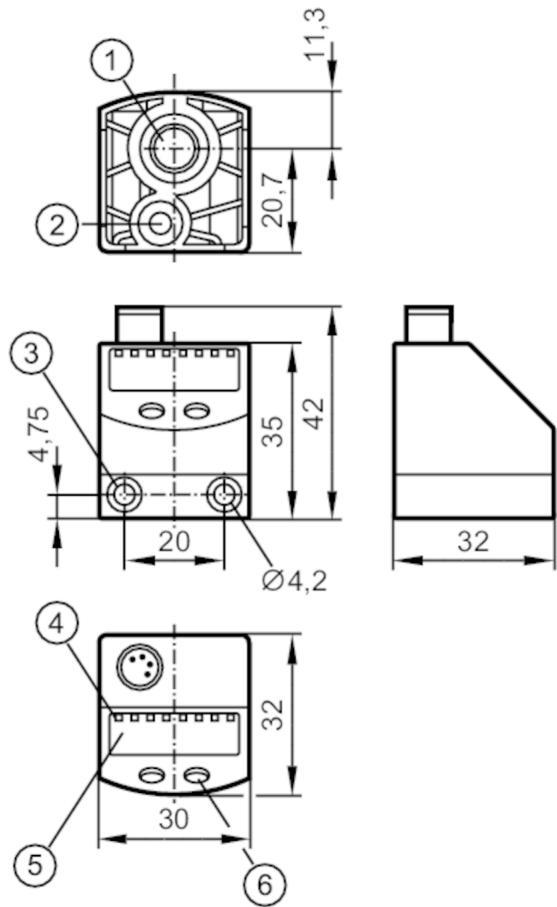


PQ3809



Pressure sensor for pneumatics

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- 1 main pressure connection G 1/8 Tightening torque < 8 Nm insertion depth < 7.5 mm
- 2 auxiliary pressure connection M 5 Tightening torque < 2.5 Nm insertion depth < 7.5 mm
- 3 thread M 4 Tightening torque < 2.5 Nm
- 4 LEDs Display unit / switching status
- 5 alphanumeric display 4-digit
- 6 programming button



Application				
Conditionally suitable for	other media on request			
Medium temperature [°C]	0...60			
Pressure rating	20 bar	2000 kPa	290 psi	591 inHg
Min. bursting pressure	30 bar	3000 kPa	435 psi	886 inHg
Note on min. burst pressure	max. overpressure on second pressure connection: 12 bar / 1200 kPa / 174 PSI / 354,4 inHg / 1,2 MPa			
Type of pressure	relative pressure; differential pressure			



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Electrical data				
Operating voltage	[V]	18...32 DC; (according to EN 50178 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]	0.5		
Integrated watchdog		yes		
Inputs / outputs				
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1		
Outputs				
Total number of outputs		2		
Output signal		switching signal; analogue signal; IO-Link; (configurable)		
Electrical design		PNP		
Number of digital outputs		1		
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]	< 100		
Number of analogue outputs		1		
Analogue current output	[mA]	4...20		
Max. load	[Ω]	500		
Short-circuit protection		yes		
Type of short-circuit protection		pulsed		
Measuring/setting range				
Measuring range		-1...1 bar	-100...100 kPa	-14.6...14.6 psi
Set point SP		-0.98...1 bar	-98...0.1 kPa	-14.2...14.6 psi
Reset point rP		-0.99...0.99 bar	-99...99 kPa	-14.4...14.4 psi
In steps of		0.01 bar	1 kPa	0.2 psi
				0.3 inHg
Accuracy / deviations				
Switch point accuracy		< ± 0,5		
	[% of the span]			
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K)		
	[% of the span]			
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
	[% of the span]			
Hysteresis deviation		< ± 0,25		
	[% of the span]			
Long-term stability		< ± 0,05; (per 6 months)		
	[% of the span]			
Temperature coefficient zero point		0,2; (0...60 °C)		



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[% of the span / 10 K]		
Temperature coefficient span [% of the span / 10 K]		0,2; (0...60 °C)
Response times		
Response time	[ms]	< 6
Delay time programmable dS, dr	[s]	0; 0,002...5
Step response time analogue output	[ms]	6
Software / programming		
Parameter setting options	hysteresis / window; normally open / normally closed; analogue output; IO-Link; switching logic; switch-on/switch-off delay; Damping; Display unit	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 FDIS	
IO-Link device ID	366 d / 00 01 6E h	
Profiles	Smart Sensor: Process Data Variable; Device Identification	
SIO mode	yes	
Required master port type	A	
Process data analogue	1	
Process data binary	2	
Min. process cycle time	[ms]	2.3
Operating conditions		
Ambient temperature	[°C]	0...70
Storage temperature	[°C]	-25...85
Protection	IP 65	
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	437
Mechanical data		
Weight	[g]	86.5
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 internal threadM5	

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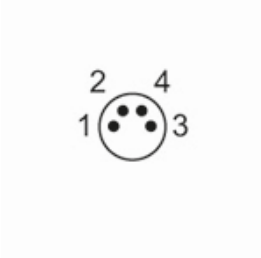
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Displays / operating elements		
Display	Display unit	4 x LED, green
	switching status	1 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	bar; kPa; psi; inHg	

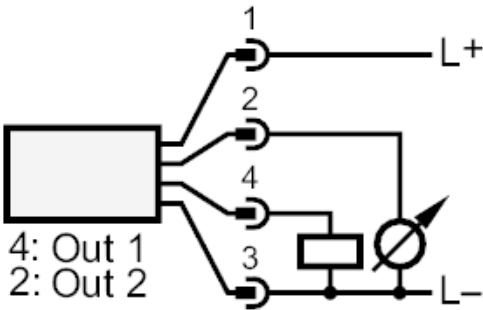
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M8; Contacts: gold-plated



Connection



OUT1	switching output
	IO-Link
OUT2	analogue output