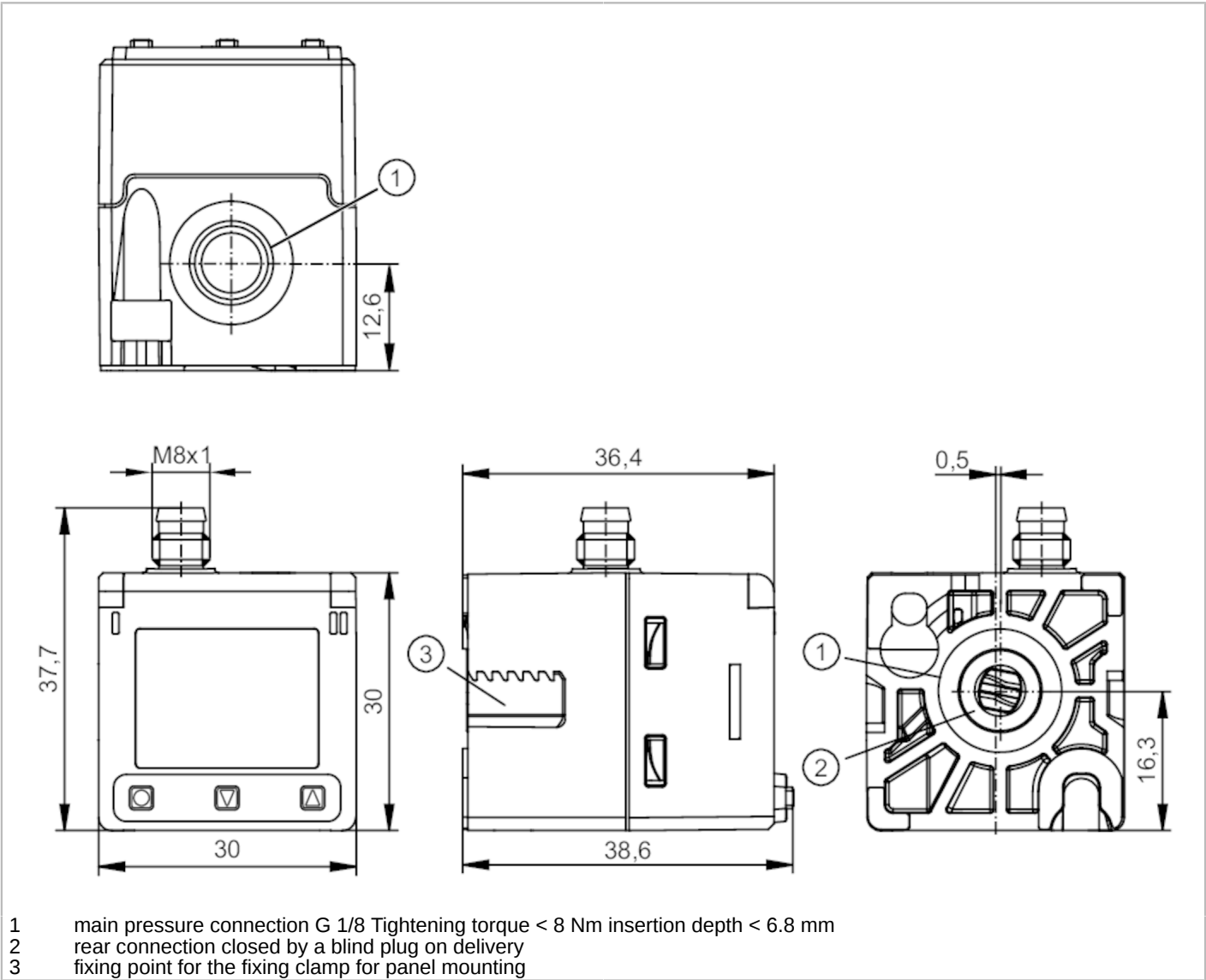


PQS812



Pressure sensor for pneumatics

PQ-010-KHR18-MFPKG/AS/



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	-1...10 bar	-0.1...1 MPa
Process connection	threaded connection G 1/8 Internal thread (2x)	
Application		
System	gold-plated contacts	
Application	for industrial applications	
Media	compressed air; nitrogen (N2)	
Conditionally suitable for	other media on request	
Medium temperature [°C]	0...60	
Min. burst pressure	20 bar	2 MPa
Pressure rating	15 bar	1.5 MPa
Vacuum resistance	-1000 mbar	-0.1 MPa
Type of pressure	relative pressure; vacuum	



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Electrical data		
Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 30
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; IO-Link; (configurable)
Electrical design		PNP/NPN; (configurable)
Number of digital outputs		2
Output function		normally open / closed; (configurable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	< 170
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes
Measuring/setting range		
Measuring range	-1...10 bar	-0.1...1 MPa
Set point SP	-1...10 bar	-0.1...1 MPa
In steps of	0.01 bar	0.001 MPa
Accuracy / deviations		
Switch point accuracy		< ± 0,5
	[% of the span]	
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K:)
	[% of the span]	
Characteristics deviation		< ± 0,5; (including linearity, hysteresis and repeatability)
	[% of the span]	
Linearity deviation		< ± 0.5 % (limit value setting according to DIN EN IEC 62828-1)
	[% of the span]	
Hysteresis deviation		< ± 0,25
	[% of the span]	
Long-term stability		< ± 0,1; (per year)
	[% of the span]	
Temperature coefficient zero point		0,2
	[% of the span / 10 K]	
Temperature coefficient span		0,2



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[% of the span / 10 K]		
Reaction times		
Response time	[ms]	6
Damping process value dAP	[s]	0...4
Damping for the analog output dAA	[s]	0...99.99
Software / programming		
Parameter setting options	display can be rotated and switched off; Teach function; simulation function; Diagnostic function	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM3 (230,4 kBaud)	
IO-Link revision	1.1.3	
SDCI standard	IEC 61131-9: 2019-06	
Profiles	Smart Sensor - SSP 4.1.1	Measuring and Switching Sensor, 1 channel
	BLOB	Binary Large Object transfer
	Common - I&D	Identification and Diagnosis
	Extension	Quantity detection, switches when value exceeds the setpoint
	Function	Locator
	Function	ProductURI
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	2	
Min. process cycle time	[ms]	0.6
IO-Link resolution pressure	[bar]	0.001
IO-Link process data (cyclical)	Function	bit length
	pressure	16
	device status	4
	SSC1.1	1
	SSC1.2	1
IO-Link functions (acyclical)	application specific tag; internal temperature; Medium temperature	
Supported DeviceIDs	Type of operation	DeviceID
	default	1617
Operating conditions		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-25...85
Protection	IP 65	
Tests / approvals		
EMC	DIN EN 61326-1	
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]	508
Pressure equipment directive	sound engineering practice; can be used for stable gases fluid group 2	

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Mechanical data		
Weight	[g]	52
Housing		rectangular
Dimensions	[mm]	37.7 x 30 x 38.6
Material		PBT; PC; TPE; NBR; FKM; brass; silicon (coated)
Materials (wetted parts)		PBT; FKM; brass; silicon (coated)
Min. pressure cycles		50 million
Process connection		threaded connection G 1/8 Internal thread (2x)
Displays / operating elements		
Display	Display 1"	128 x 96 pixels
	Switching status	2 x LED, yellow
Display unit		bar; MPa; mmHg; kgf/cm²
Accessories		
Items supplied		head cap screw: 2 x (M3 x 8 mm)
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M8; coding: A; Contacts: gold-plated		
Connection		
Electrical connection - plug		
1	L+	
2	OUT	DO
3	L-	
4	MP	DO, IO-Link
DO: digital output; MP: multi-function connection		



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Diagrams and graphs

drilling template

