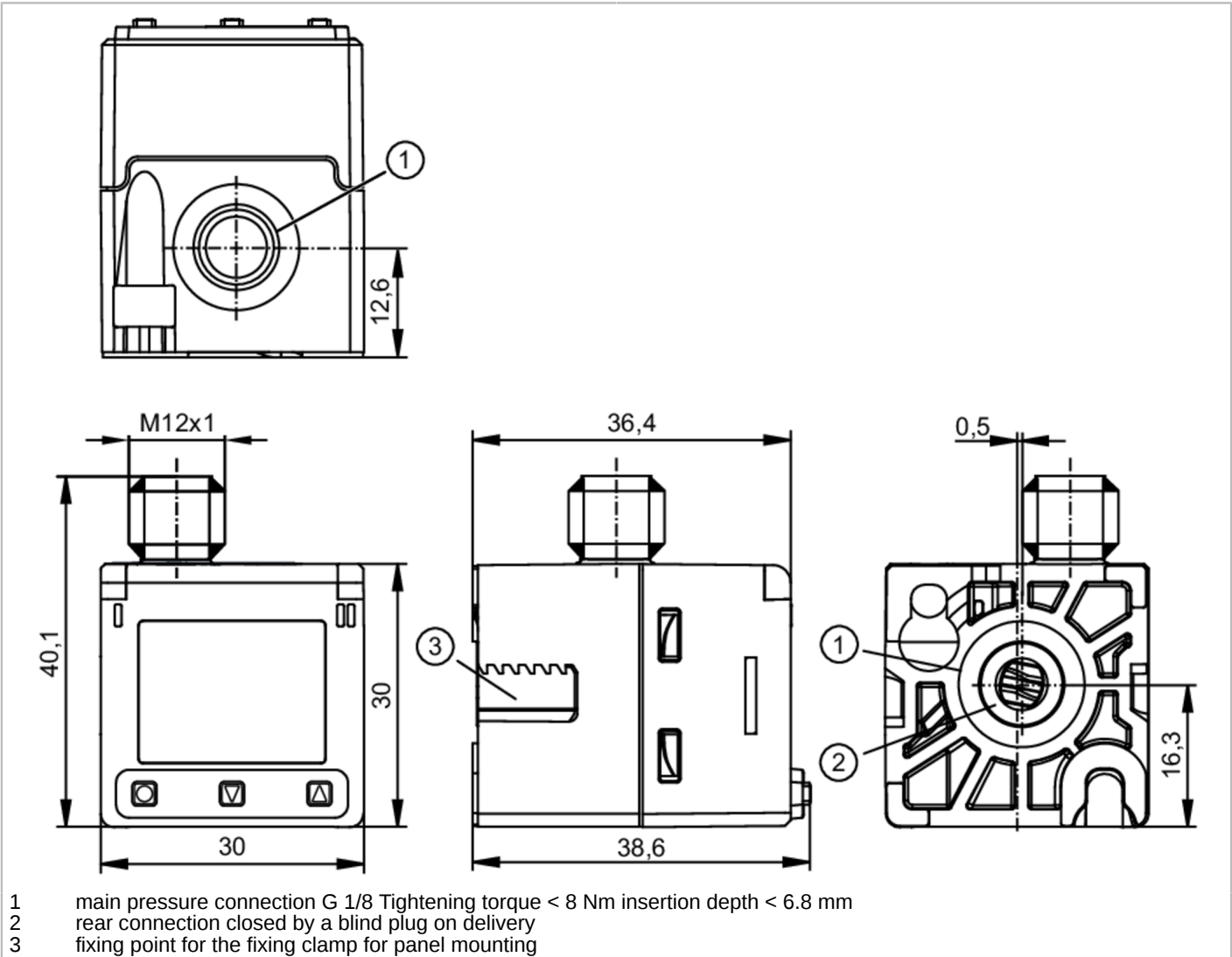


PQC822



Pressure sensor for pneumatics

PQ-010-KHR18-MFPKG/US/



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection	threaded connection G 1/8 Internal thread (2x)		
Application			
Special feature	gold-plated contacts		
Application	for industrial applications		
Media	compressed air; nitrogen (N2)		
Conditionally suitable for	other media on request		
Medium temperature	0...60 °C	32...140 °F	
Min. burst pressure	20 bar	290 psi	2 MPa
Pressure rating	15 bar	220 psi	1.5 MPa
Vacuum resistance	-1000 mbar	-14.5 psi	-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	
Power-on delay time	[s]	0.3	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analog outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analog signal; IO-Link; (configurable)	
Electrical design		PNP/NPN; (configurable)	
Number of digital outputs		1	
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	
Number of analog outputs		1	
Analog current output	[mA]	4...20, invertible; (scalable)	
Max. load	[Ω]	500	
Analog voltage output	[V]	0...10 / 1...5, invertible; (scalable)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		yes (non-latching)	
Overload protection		yes	
Measuring/setting range			
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Set point SP	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Analog start point	-1...8 bar	-14.5...116 psi	-0.1...0.8 MPa
Analog end point	1...10 bar	14.5...145 psi	0.1...1 MPa
In steps of	0.01 bar	0.1 psi	0.001 MPa
Accuracy / deviations			
Switch point accuracy		< ± 0,5; (Turn down 1:1)	
	[% of the span]		
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K: Turn down 1:1)	
Characteristics deviation		< ± 0,5; (Turn down 1:1; including linearity, hysteresis and repeatability)	
	[% of the span]		
Linearity deviation		< ± 0.5 % (limit value setting according to DIN EN IEC 62828-1) Turn down 1:1	
	[% of the span]		
Hysteresis deviation		< ± 0,25; (Turn down 1:1)	



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	[% of the span]		
Long-term stability		< ± 0,1; (Turn down 1:1; per year)	
	[% of the span]		
Temperature coefficient zero point		0,2; (Turn down 1:1)	
	[% of the span / 10 K]		
Temperature coefficient span		0,2; (Turn down 1:1)	
	[% 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; analog output selectable and scalable; Teach function; simulation function; Diagnostic function	
Interfaces			
Communication interface		IO-Link	
IO-Link revision		1.1.3	
SDCI standard		IEC 61131-9: 2019-06	
SIO mode		yes	
Required master port class		A	
Process data analog		1	
Process data binary		2	
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	1728
Operating conditions			
Ambient temperature		0...60 °C	32...140 °F
Storage temperature		-25...85 °C	-13...185 °F
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)
Pressure equipment directive		sound engineering practice; can be used for stable gases fluid group 2	
Mechanical data			
Weight	[g]	60.227	
Housing		rectangular	
Dimensions	[mm]	37.7 x 30 x 38.6	

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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	1 x LED, yellow
Display unit	bar; MPa; psi; mmHg; inHg; kgf/cm²	

Accessories	
Items supplied	head cap screw: 2 x (M3 x 8 mm)

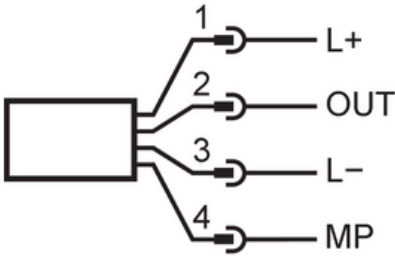
Remarks	
Pack quantity	1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



1	L+	
2	OUT	AO
3	L-	
4	MP	DO, IO-Link

AO: analog output; DO: digital output; MP: multi-function connection

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Diagrams and graphs

drilling template

