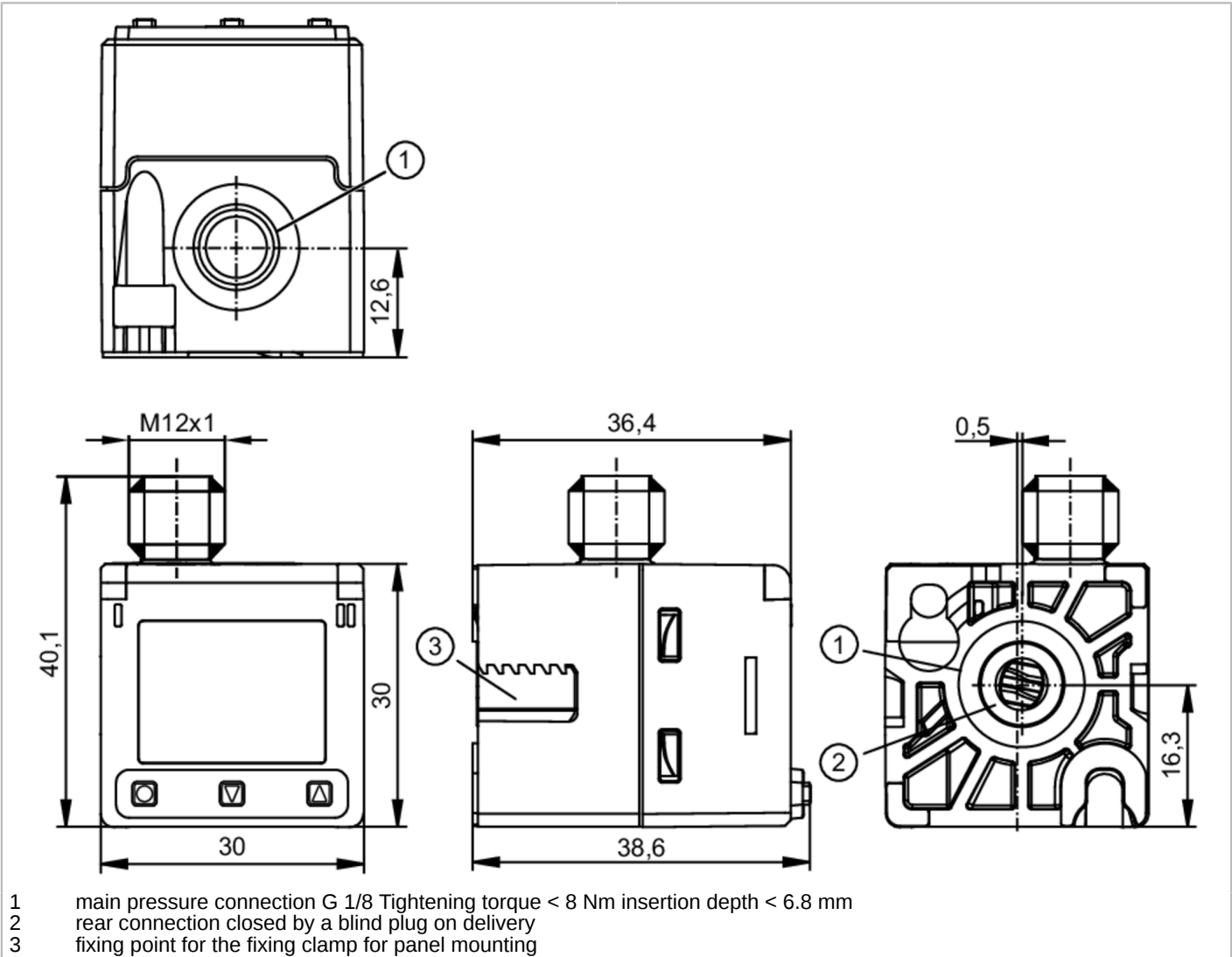


PQS829



Pressure sensor for pneumatics

PQ-0-1BKHR18-QFPKG/US/



Product characteristics				
Number of inputs and outputs	Number of digital outputs: 2			
Measuring range	-1...0 bar	-1000...0 mbar	-14.5...0 psi	-100...0 kPa
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	10 bar	145 psi	1 MPa	
Vacuum resistance	-1000 mbar	-14.5 psi	-0.1 MPa	
Type of pressure	relative pressure; vacuum			



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PQ-0-1BKHR18-QFPKG/US/

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: 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...0 bar	-1000...0 mbar	-14.5...0 psi -100...0 kPa
Set point SP		-1...0 bar	-14.5...0 psi	-100...0 kPa
In steps of		0.001 bar	0.01 psi	0.1 kPa 0.0001 MPa
Accuracy / deviations				
Switch point accuracy		< ± 1		
	[% of the span]			
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K:)		
	[% of the span]			
Characteristics deviation		< ± 1; (including linearity, hysteresis and repeatability)		
	[% of the span]			
Linearity deviation		< ± 1 % (limit value setting 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		
	[% of the span / 10 K]			



Pressure sensor for pneumatics

PQ-0-1BKHR18-QFPKG/US/

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	
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]	0.0001
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	1749
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]	59.724
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

PQS829



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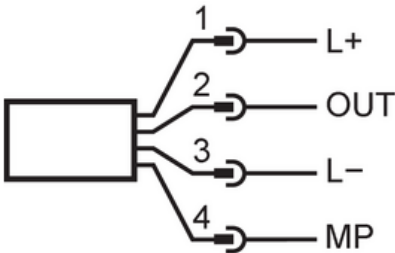
PQ-0-1BKHR18-QFPKG/US/

Display unit	mbar; kPa; 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

Diagrams and graphs

drilling template

