

PQ3809

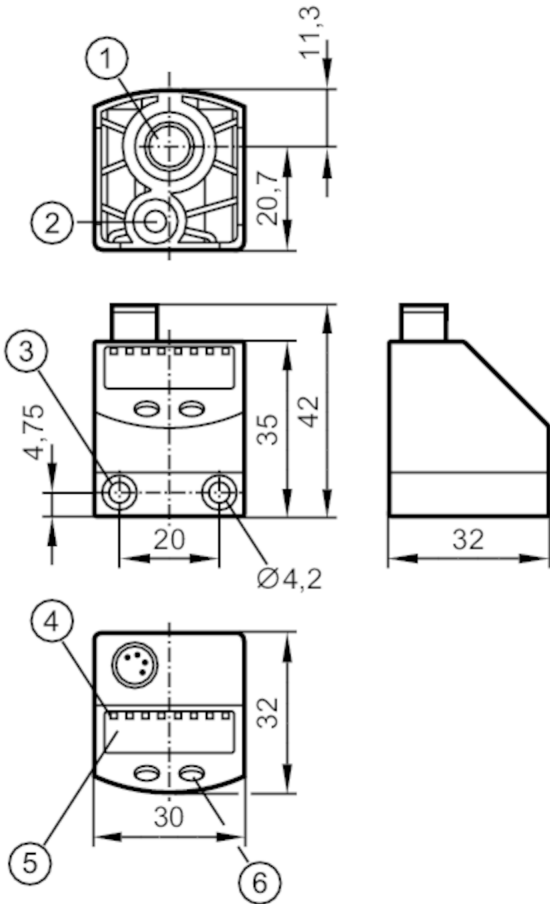


Pressure sensor for pneumatics

PQ-1-1-KHR18-KFPKG/AS/

Article to be discontinued

Alternative articles: PQD489 or PQD389
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 auxiliary pressure connection M 5 Tightening torque < 2.5 Nm insertion depth < 7.5 mm
- 3 Tightening torque < 0.5 Nm
- 4 LEDs Display unit / Switching status
- 5 alphanumeric display 4-digit
- 6 Programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1				
Measuring range	-1...1 bar	-1000...1000 mbar	-14.6...14.6 psi	-29.4...29.4 inHg	-100...100 kPa
Process connection	threaded connection G 1/8 Internal thread Internal thread:M5				

Application

Special feature	gold-plated contacts
Application	for industrial applications
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
Note on min. burst pressure	max. overpressure on second pressure connection: 12 bar / 1200 kPa / 174 PSI / 354,4 inHg / 1,2 MPa			
Pressure rating	20 bar	290 psi	591 inHg	2000 kPa
Vacuum resistance	-1000 mbar		-0.1 MPa	
Type of pressure	relative pressure; differential 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
Power-on delay time [s]	0.5
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog signal; IO-Link; (configurable)
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	< 100
Number of analog outputs	1
Analog current output [mA]	4...20
Max. load [Ω]	500
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)

Measuring/setting range

Measuring range	-1...1 bar	-1000...1000 mbar	-14.6...14.6 psi	-29.4...29.4 inHg	-100...100 kPa
Set point SP	-0.98...1 bar	-14.2...14.6 psi	-28.8...29.4 inHg	-98...100 kPa	
Reset point rP	-0.99...0.99 bar	-14.4...14.4 psi	-29.1...29.1 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	< ± 0,25



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[% of the span]		
Long-term stability		< ± 0,05; (per 6 months)
	[% of the span]	
Temperature coefficient zero point		0,2; (0...60 °C)
	[% of the span / 10 K]	
Temperature coefficient span		0,2; (0...60 °C)
	[% of the span / 10 K]	
Reaction times		
Response time	[ms]	< 6
Delay time programmable dS, dr	[s]	0; 0,002...5
Step response time analog output	[ms]	6
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; analog 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	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	2	
Min. process cycle time	[ms]	2.3
Supported DeviceIDs	Type of operation	DeviceID
	default	366
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
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	87
Housing	rectangular	

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Dimensions	[mm]	42 x 30 x 32
Material		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 thread:M5

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

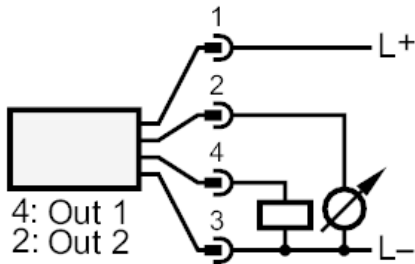
Pack quantity	1 pcs.
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Electrical connection

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



Connection



OUT1	Switching output
	IO-Link
OUT2	analog output