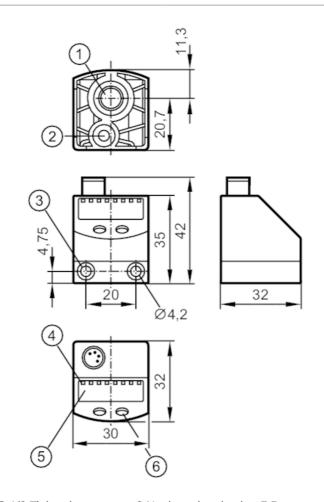
Pressure sensor for pneumatics







- main pressure connection G 1/8 Tightening torque < 8 Nm insertion depth < 7.5 mm auxiliary pressure connection M 5 Tightening torque < 2.5 Nm insertion depth < 7.5 mm Tightening torque < 0.5 Nm LEDs Display unit / switching status

- 1 2 3 4 5 6
- alphanumeric display 4-digit programming button



Product characteristics						
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1				
Measuring range		-110 bar	-15145 psi	-30296 inHg	-1001000 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]	060				
Min. bursting pressure		30 bar	435 psi	886 inHg	3000 kPa	
Note on min. burst pressure	е	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	[mbar]	-1000				
Type of pressure		relative pressure; differential pressure; vacuum				

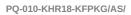
Pressure sensor for pneumatics

PQ-010-KHR18-KFPKG/AS/



Department consumption	Electrical data						
Min. insulation resistance MΩ 100; (500 V DC) III Reverse polarity protection yes Ves	Operating voltage	[V]	1832 DC; (to SELV/PELV)				
Protection class III	Current consumption	[mA]					
Reverse polarity protection Overvoltage protection Power- on delay time Integrated watchdog Inputs / outputs Number of inputs and outputs Number of inputs and outputs Number of digital outputs: 1; Number of analogue outputs: 1 Output Signal Electrical design Number of digital outputs Switching signal; analogue signal; IO-Link; (configurable) Electrical design Number of digital outputs Output function Number of digital outputs Output function Number of digital outputs 1	Min. insulation resistance	[ΜΩ]					
Overvoltage protection yes; (< 40 V) Power-on delay time [s] 0.5 Integrated watchdog yes Imputs / outputs Number of inputs and outputs Number of digital outputs: 1; Number of analogue outputs: 1 Output signal Electrical design PNP Number of digital outputs 1 Output function normally open / normally closed; (parameterisable) Naw. voltage drop switching [V] output function 100 Max. voltage drop switching of switching of upput DC [mA] Switching requency DC [t-2] Switching output DC 100 Switching requency DC [t-2] Switching requency DC [t-2] Max. load [0] Short-circuit protection yes Type of short-circuit protection 9.0.10 bar In steps of	Protection class				III		
Power-on delay time [s]	Reverse polarity protection	n			yes		
Integrated watchdog yes Inputs / outputs Number of inputs and outputs Number of digital outputs: 1; Number of analogue outputs: 1 Output signal Clectrical design Number of digital outputs Switching signal; analogue signal; IO-Link; (configurable) PNP Number of digital outputs 1 Output function Naw. Voltage drop switching of switching of uptut DC Permanent current rating of switching output DC Switching frequency DC Withing	Overvoltage protection		·				
Imputs / outputs	Power-on delay time	[s]					
Number of inputs and outputs Outputs Total number of outputs Output signal Electrical design Number of digital outputs Output signal Electrical design Number of digital outputs Output signal Electrical design Number of digital outputs Output function Max. voltage drop switching output bC Permanent current rating of [mA] switching output DC Switching frequency DC [Hz] Number of analogue outputs Analogue current output [mA] 420 Short-circuit protection Type of short-circuit protection Type of short-circuit protection Measuring range Measuring range Measuring range 110 bar 15145 psi -30296 inHg -1001000 kPa Reset point rP -0.910 bar 13145 psi -28294 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy (% of the span) Physteresis deviation (% of the span) My of the span) Hysteresis deviation (% of the span) Femperature coefficient zero	Integrated watchdog				yes		
Total number of outputs 2 2 2 2 2 2 2 2 2	Inputs / outputs						
Total number of outputs 2 Switching signal; analogue signal; IO-Link; (configurable)	Number of inputs and outp	outs	Nur	mber of digital outputs	: 1; Number of analogue	outputs: 1	
Switching signal; IO-Link; (configurable) Electrical design Number of digital outputs Output function Max. voltage drop switching output DC Permanent current rating of switching output DC Switching frequency DC [Hz] Number of analogue outputs Analogue current output [mA] Max. load [Q] Short-circuit protection Type of short-circuit protection Type of short-circuit protection Weasuring/setting range Measuring/setting range -110 bar -15145 psi -30296 inHg -1001000 kPa Set point SP -0.910 bar -13145 psi -26296 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy [% of the span] Hysteresis deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero	Outputs						
Electrical design	Total number of outputs				2		
Number of digital outputs	Output signal		SV	vitching signal; analog	ue signal; IO-Link; (con	figurable)	
Number of analogue output Max. voltage drop switching output DC Permanent current rating of switching output DC Max. voltage drop switching output DC Max. voltage drop switching output DC Max. voltage drop switching output DC Max. voltage dreams output DC Max. voltage dreams output Max. voltage dreams output Max. voltage outputs Max. voltage outputs Max. voltage outputs Max. voltage outputs Max. voltage output Velous output	Electrical design				PNP		
Max. voltage drop switching output DC Permanent current rating of switching output DC Switching frequency DC Hz 100 10	Number of digital outputs				1		
output DC 2 Permanent current rating of switching output DC [mA] Switching frequency DC [Hz] < 100	Output function		normally open / normally closed; (parameterisable)				
Switching output DC Switching frequency DC [Hz]		ng [V]					
Number of analogue outputs Analogue current output [mA] Analogue current output [mA] Max. load [Ω] Short-circuit protection Type of short-circuit protection Type of short-circuit protection Measuring/setting range Measuring range -110 bar -15145 psi -30296 inHg -1001000 kPa Set point SP -0.910 bar -13145 psi -26296 inHg -901000 kPa Reset point rP -0.959.95 bar -14144 psi -28294 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy [% of the span] Repeatability [% of the span] Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero	_	of [mA]	100				
Analogue current output [mA] 420 Max. load [Ω] 500 Short-circuit protection Type of short-circuit protection Type of short-circuit protection Measuring/setting range Measuring range -110 bar -15145 psi -30296 inHg -1001000 kPa Set point SP -0.910 bar -13145 psi -26296 inHg -901000 kPa Reset point rP -0.959.95 bar -14144 psi -28294 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy [% of the span] Repeatability [% of the span] Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero		[Hz]	< 100				
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Number of analogue outpu	uts					
Short-circuit protection yes	Analogue current output	[mA]					
Type of short-circuit protection Measuring/setting range Measuring range -110 bar -15145 psi -30296 inHg -1001000 kPa Set point SP -0.910 bar -13145 psi -26296 inHg -901000 kPa Reset point rP -0.959.95 bar -14144 psi -28294 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy < ± 0,5	Max. load	[Ω]					
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Short-circuit protection						
Measuring range			· · · · · · · · · · · · · · · · · · ·				
Set point SP -0.910 bar -13145 psi -26296 inHg -901000 kPa Reset point rP $-0.959.95$ bar -14144 psi -28294 inHg -95995 kPa In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy [% of the span] $< \pm 0.5$ [% of the span] $< \pm 0.1$; (with temperature fluctuations < 10 K) Characteristics deviation [% of the span] $< \pm 0.25$ (BFSL) / $< \pm 0.5$ (LS); (BFSL = Best Fit Straight Line; LS = limit value setting) Hysteresis deviation $< \pm 0.25$ $< \pm 0.05$; (per 6 months) Temperature coefficient zero	Measuring/setting range	:					
Reset point rP	Measuring range		-110 bar	-15145 psi	-30296 inHg	-1001000 kPa	
In steps of 0.05 bar 1 psi 2 inHg 5 kPa Accuracy / deviations Switch point accuracy [% of the span] Repeatability [% of the span] Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero 0.05 bar 1 psi 2 inHg 5 kPa 2 inHg 5 kPa	Set point SP		-0.910 bar	-13145 psi	-26296 inHg	-901000 kPa	
Accuracy / deviations Switch point accuracy [% of the span] Repeatability [% of the span] Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero Switch point accuracy ($\pm 0,5$) (with temperature fluctuations < 10 K) $< \pm 0,25$ (BFSL) / $< \pm 0,5$ (LS); (BFSL = Best Fit Straight Line; LS = limit value setting) $< \pm 0,25$ $< \pm 0,25$ $< \pm 0,05$; (per 6 months)	· · · · · · · · · · · · · · · · · · ·			-14144 psi	-28294 inHg	-95995 kPa	
Switch point accuracy [% of the span] Repeatability [% of the span] $< \pm 0,1$; (with temperature fluctuations $< 10 \text{ K}$) Characteristics deviation [% of the span] $< \pm 0,25 \text{ (BFSL)} / < \pm 0,5 \text{ (LS)}$; (BFSL = Best Fit Straight Line; LS = limit value setting) Hysteresis deviation $< \pm 0,25$ [% of the span] Long-term stability [% of the span] Temperature coefficient zero	In steps of		0.05 bar	1 psi	2 inHg	5 kPa	
[% of the span] Repeatability [% of the span] Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] [% of the span] [% of the span]	Accuracy / deviations						
Repeatability [% of the span] $<\pm0,1$; (with temperature fluctuations < 10 K) Characteristics deviation [% of the span] $<\pm0,25$ (BFSL) $/<\pm0,5$ (LS); (BFSL = Best Fit Straight Line; LS = limit value setting) Hysteresis deviation $<\pm0,25$ [% of the span] Long-term stability $<\pm0,05$; (per 6 months) Temperature coefficient zero	•	the enen			< ± 0,5		
Characteristics deviation [% of the span] Hysteresis deviation [% of the span] Long-term stability [% of the span] Temperature coefficient zero $(\pm 0,25 \text{ (BFSL)})/(\pm 0,5 \text{ (LS)}; \text{ (BFSL = Best Fit Straight Line; LS = limit value setting)}} (\pm 0,25 \text{ (BFSL)})/(\pm 0,5 \text{ (LS)}; \text{ (BFSL = Best Fit Straight Line; LS = limit value setting)}}$	-				0 K)		
Hysteresis deviation [% of the span] Long-term stability $(\pm 0.05; (per 6 months))$ Temperature coefficient zero	Characteristics deviation						
Long-term stability $= \pm 0.05$; (per 6 months) Temperature coefficient zero	Hysteresis deviation		< ± 0,25				
[% of the span] Temperature coefficient zero							
	-		< ± 0,05; (per 6 months)				
[% of the span / 10 K]	point		0,2; (060 °C)				

Pressure sensor for pneumatics





Temperature coefficient span 0,2; (0...60 °C) [% of the span / 10 K] Response times Response time [ms] < 6 Delay time programmable dS, [s] 0; 0,002...5 Step response time analogue [ms] 6 output 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 **Profiles** Smart Sensor: Process Data Variable; Device Identification SIO mode yes Required master port type Α Process data analogue 1 Process data binary 2 Min. process cycle time 2.3 [ms] Supported DeviceIDs Type of operation DeviceID Default 367 **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 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 thread:M5

Pressure sensor for pneumatics

PQ-010-KHR18-KFPKG/AS/



Displays / operating el	ements			
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		

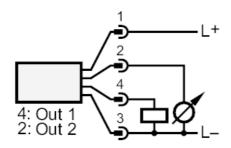
	bai, ki a, psi, iii ig
Remarks	
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1 switching output IO-Link

OUT2 analogue output