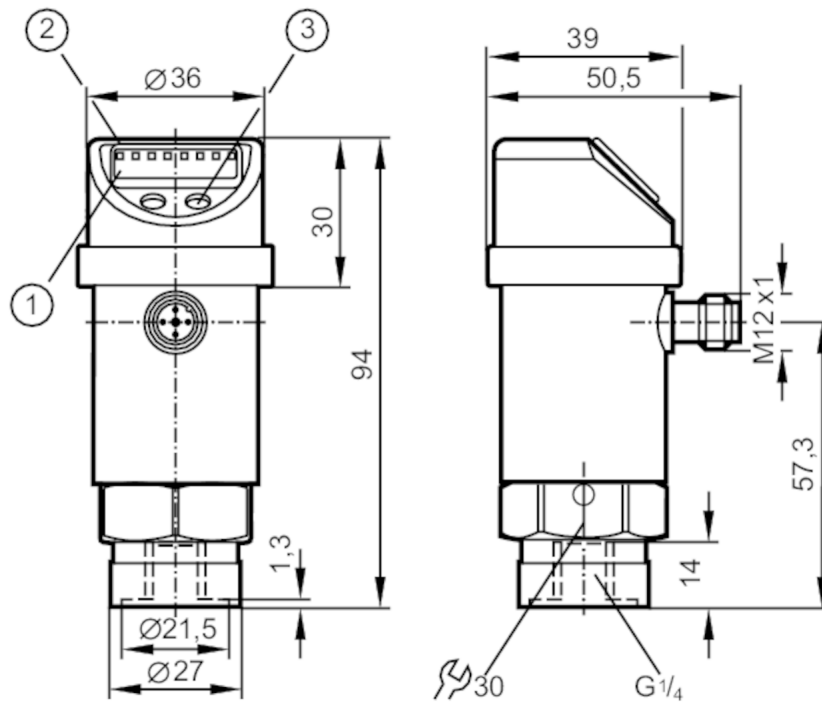


PN006A



Pressure sensor with display

PN-2,5-RBR14-KFPKG/US/3D IV



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming button



Product characteristics

Output signal	switching signal; analog signal; (configurable)			
Measuring range	0...2.5 bar	0...2500 mbar	0...36.3 psi	0...250 kPa
Process connection	threaded connection G 1/4 Internal thread			

Application

System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-20...60		
Min. bursting pressure	50 bar	725 psi	5000 kPa
Pressure rating	20 bar	290 psi	2000 kPa
Type of pressure	relative pressure		

Electrical data

Operating voltage [V]	18...36 DC; (according to EN 50178 SELV/PELV)		
Current consumption [mA]	< 50		
Protection class	III		
Reverse polarity protection	yes		
Overvoltage protection	yes; (< 40 V)		
Power-on delay time [s]	0.3		
Integrated watchdog	yes		



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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; (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]		250			
Switching frequency DC [Hz]		< 170			
Number of analog outputs		1			
Analog current output [mA]		4...20			
Max. load [Ω]		500			
Analog voltage output [V]		0...10			
Min. load resistance [Ω]		2000			
Short-circuit protection		yes			
Type of short-circuit protection		yes (non-latching)			
Measuring/setting range					
Measuring range		0...2.5 bar	0...2500 mbar	0...36.3 psi	0...250 kPa
Set point SP		0.02...2.5 bar	0.4...36.2 psi		2...250 kPa
Reset point rP		0.01...2.49 bar	0.2...36 psi		1...249 kPa
In steps of		0.01 bar	0.2 psi		1 kPa
Factory setting		SP1 = 0.63 bar	rP1 = 0.58 bar		
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 [% of the span]		< ± 0,25			
Long-term stability [% of the span]		< ± 0,05; (per 6 months)			
Temperature coefficient zero point [% of the span / 10 K]		0,2; (0...60 °C)			
Temperature coefficient span [% of the span / 10 K]		0,2; (0...60 °C)			
Reaction times					
Delay time programmable dS, dr [s]		0; 0,2...50			
Max. response time analog output [ms]		3			

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Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; switch-on/ switch-off delay; Damping; Display unit; current/voltage output	
Operating conditions		
Ambient temperature	[°C]	-20...60
Storage temperature	[°C]	-40...100
Protection	IP 65	
Tests / approvals		
ATEX marking	II 3D Ex tc IIIC T80°C Dc X	
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[years]	213
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	303.5
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)	stainless steel (1.4305 / 303); ceramics; FKM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 Internal thread	
Restrictor element integrated	no (can be retrofitted)	
Displays / operating elements		
Display	Display unit	3 x LED, green
	Switching status	LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		
		

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Connection

