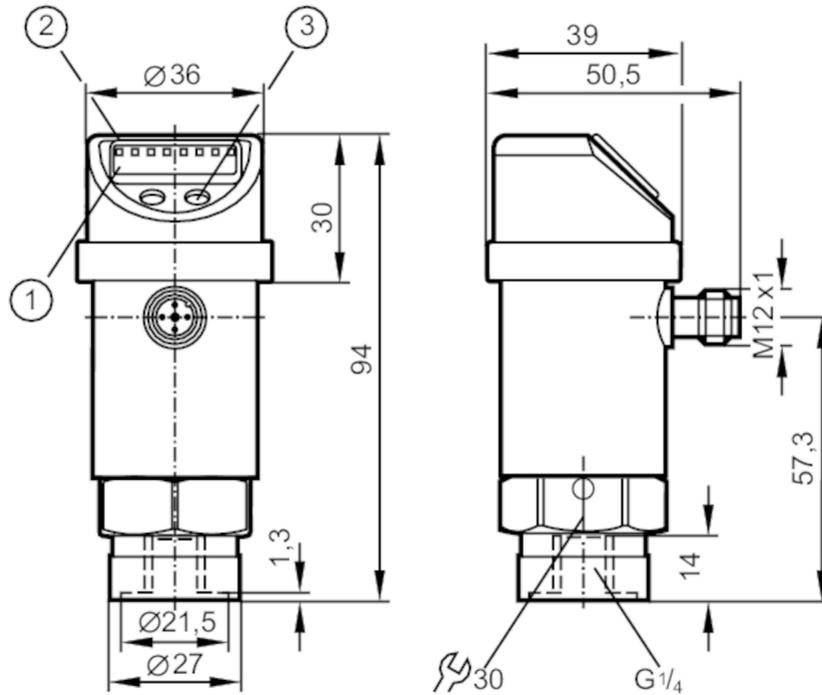


# PN004A



## Pressure sensor with display

PN-010-RBR14-KFPKG/US/3D IV



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1			
Measuring range	-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Process connection	threaded connection G 1/4 internal thread			

### Application

Special feature	Gold-plated contacts			
Application	for industrial applications			
Media	liquids and gases			
Medium temperature [°C]	-20...60			
Min. bursting pressure	150 bar	2175 psi	15 MPa	
Pressure rating	75 bar	1087 psi	7.5 Mpa	
Type of pressure	relative pressure			

### Electrical data

Operating voltage [V]	18...36 DC; (to 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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## Pressure sensor with display

PN-010-RBR14-KFPKG/US/3D /V

Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
Outputs	
Total number of outputs	2
Output signal	switching signal; analogue signal; (configurable)
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	250
Switching frequency DC [Hz]	< 170
Number of analogue outputs	1
Analogue current output [mA]	4...20
Max. load [Ω]	500
Analogue voltage output [V]	0...10
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Measuring/setting range	
Measuring range	-1...10 bar      -14.5...145 psi      -100...1000 kPa      -0.1...1 MPa
Set point SP	-0.9...10 bar      -12...145 psi      -0.09...1 MPa
Reset point rP	-0.95...9.95 bar      -13...144 psi      -0.095...0.995 MPa
In steps of	0.05 bar      1 psi      0.005 MPa
Factory setting	SP1 = 2.50 bar      rP1 = 2.30 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)
Response times	
Delay time programmable dS, dr [s]	0; 0,2...50
Max. response time analogue output [ms]	3

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## Pressure sensor with display

PN-010-RBR14-KFPKG/US/3D /V

Software / programming		
Parameter setting options	hysteresis / window; normally open / normally 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]	302.5	
Materials	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

