

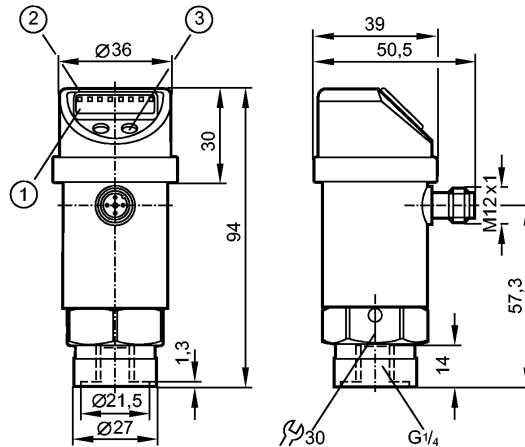


# PN006A

PN-2.5-RBR14-KFPKG/US/3D IV



Pressure sensors



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming button



## Product characteristics

Combined pressure sensor

Quick disconnect

Function programmable

ATEX approval

Group II, category 3D

Process connection: G 1/4 I

Switching output, Analog output

4-digit alphanumeric display

Measuring range: 0...2.5 bar / 0...36.3 psi / 0...250 kPa

## Application

Application	Type of pressure: relative pressure Liquids and gases		
Pressure rating	20 bar	290 psi	2000 kPa
Bursting pressure min.	50 bar	725 psi	5000 kPa
Medium temperature [°C]	-20...60		

## Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...36 DC 1)
Current consumption [mA]	< 50
Protection class	III
Reverse polarity protection	yes
Overvoltage protection [V]	up to 40 V

## Outputs

Output	Switching output, Analog output
Output function	normally open / closed programmable; 4...20 mA or 0...10 V
Current rating [mA]	250
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)
Switching frequency [Hz]	≤ 170



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Analog output	4...20 mA / 0...10 V
Max. load [Ω]	4...20 mA: max. 500 / 0...10 V: min. 2000

Measuring / setting range			
Measuring range	0...2.5 bar	0...36.3 psi	0...250 kPa
Setting range			
Set point, SP	0.02...2.50 bar	0.4...36.2 psi	2...250 kPa
Reset point, rP	0.01...2.49 bar	0.2...36.0 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	
Accuracy / deviations (in % of the span)	
Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.05
Temperature coefficients (TEMPCO) in the temperature range 0...60° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2

Reaction times	
Power-on delay time [s]	0.3
Delay time programmable dS, dr [s]	0; 0.2...50
Response time analog output [ms]	< 3
Integrated watchdog	yes

Software / programming	
Programming options	hysteresis / window function; N.O. / N.C; on delay, off delay; damping; display unit; current / voltage output

Environment	
Ambient temperature [°C]	-20...60
Storage temperature [°C]	-40...100
Protection	IP 65

Tests / approvals	
Marking of the unit	Ex 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

Mechanical data	
Process connection	G ¼ I
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE



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Switching cycles min.	100 million
Weight [kg]	0.304

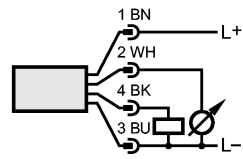
### Displays / operating elements

Display	Display unit 3 x LED green Switching status LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
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### Electrical connection

Connection	M12 connector; gold-plated contacts
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### Wiring



### Remarks

Remarks	1) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months
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Pack quantity [piece]	1
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