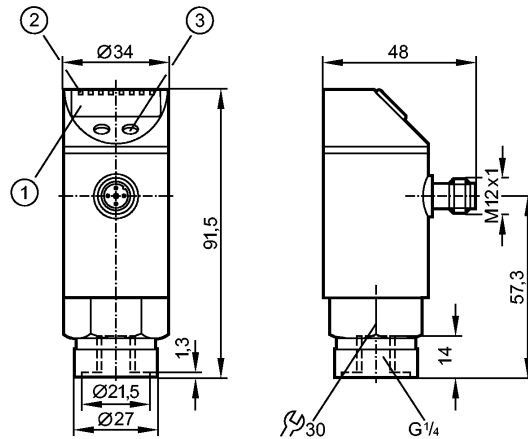


**PNI024**

PNI010-RBR14-QFRKG/US/ IV

Pressure sensors



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



**Product characteristics**

- Electronic pressure monitor
- Quick disconnect
- Function programmable
- Analog input
- Process connection: G 1/4 I
- 2 switching outputs
- 4-digit alphanumeric display
- Measuring range: 0...10 bar

**Application**

Application	Type of pressure: relative pressure Liquids and gases
Pressure rating [bar]	50
Bursting pressure min. [bar]	150
Medium temperature [°C]	-25...80

**Electrical data**

Electrical design	DC PNP/NPN
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 90
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

**Inputs**

Analog input	0...20 mA / 0...10 V
Load / input resistance [kΩ]	0...20 mA: 0.3 / 0...10 V: 90

**Outputs**

Output	2 switching outputs
Output function	2 x normally open / closed programmable
Current rating [mA]	250
Voltage drop [V]	< 2

**PNI024**

PNI010-RBR14-QFRKG/US/ IV

Pressure sensors

Short-circuit protection	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	≤ 170

Measuring / setting range	
Display unit	bar, psi, MPa
Measuring range [bar]	0...10
Setting range	
Set point, SP [bar]	-2.46...10.00 *)
Reset point, rP [bar]	-2.50...9.96 *)
in steps of [bar]	0.02

Accuracy / deviations	
Deviations (% of value of measuring range)	
Characteristics deviation	< ± 0.6
Temperature drift ( / 10 K)	< ± 0.3
in the temperature range [°C]	0...80
Analog input	
Characteristics deviation	< ± 0.3
Temperature drift ( / 10 K)	< ± 0.1
in the temperature range [°C]	0...80

Reaction times	
Power-on delay time [s]	0.2
Min. response time switching output [ms]	3
Delay time programmable dS, dr [s]	0, 0.1...50
Damping for the switching output (dAP) [s]	0...4
Max. response time analog input [ms]	3
Integrated watchdog	yes

Software / programming	
Programming options	hysteresis / window function; N.O. / N.C; output polarity; current / voltage input; damping; calibration of displayed values; display can be rotated / deactivated; display unit
Adjustment of the switch point	Programming button

Environment	
Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 65

Tests / approvals	
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 61000-4-6 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]	152

Mechanical data	
Process connection	G ¼ I

**PNI024**

PNI010-RBR14-QFRKG/US/ /V

**Pressure sensors**

Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel (303S22); PBT (Pocan); PC (Makrolon); PA; FPM (Viton)
Switching cycles min.	100 million
Weight [kg]	0.294

**Displays / operating elements**

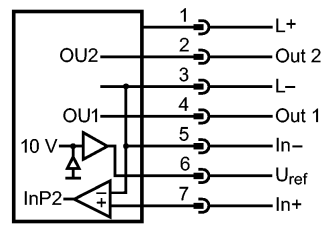
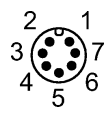
Display	Display unit     3 x LED green Display mode    3 x LED green Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
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**Electrical connection**

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

Programming of the output function:  
 Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed



Complementary outputs:  
 output 1: = Hno, output 2: = Hnc  
 (with the same SP / rP)

**Remarks**

Remarks	*) differential pressure
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Pack quantity [piece]	1
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