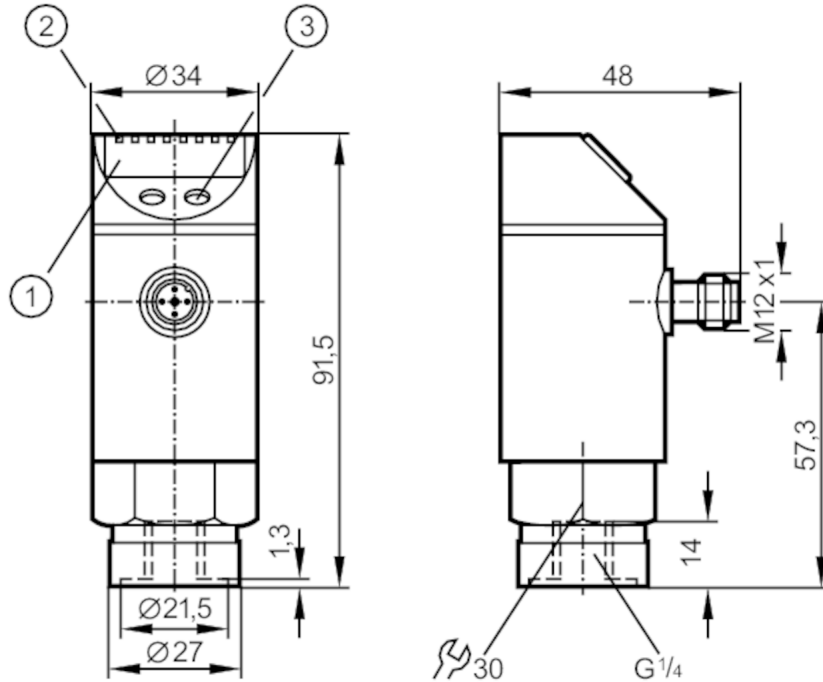


PNI024



Pressure sensor with analogue input

PNI010-RBR14-QFRKG/US/ IV



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



Product characteristics

Output signal	switching signal
Measuring range [bar]	0...10
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]	-25...80
Min. bursting pressure [bar]	150
Pressure rating [bar]	50
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 90
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.2
Integrated watchdog	yes

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Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 2
Inputs	
Analogue input (current) [mA]	0...20
Max. load [Ω]	300
Analogue input (voltage) [V]	0...10
Min. load resistance [Ω]	90000
Outputs	
Total number of outputs	2
Output signal	switching signal
Electrical design	PNP/NPN
Number of digital outputs	2
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
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes
Measuring/setting range	
Measuring range [bar]	0...10
Set point SP [bar]	-2.46...10
Note on setpoint SP	differential pressure
Reset point rP [bar]	-2.5...9.96
Note on reset point rP	differential pressure
In steps of [bar]	0.02
Accuracy / deviations	
Characteristics deviation [% of the final value]	< $\pm 0,6$
Temperature drift per 10 K	< ± 0.3
Characteristics deviation analogue input	< ± 0.3
Temperature drift analogue input per 10 K	< ± 0.1
Temperature drift analogue input [$^{\circ}\text{C}$]	0...80
Response times	
Response time [ms]	< 3
Delay time programmable dS, dr [s]	0, 0,1...50
Damping for the switching output dAP [s]	0...4

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Software / programming		
Adjustment of the switch point	programming button	
Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; current/voltage input; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit	
Operating conditions		
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	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	289	
Materials	stainless steel (1.4305 / 303); PBT; PC; PA; FKM	
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
	display mode	3 x LED, green
	switching status	2 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	bar; psi; MPa	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		

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Connection

