

PN3024



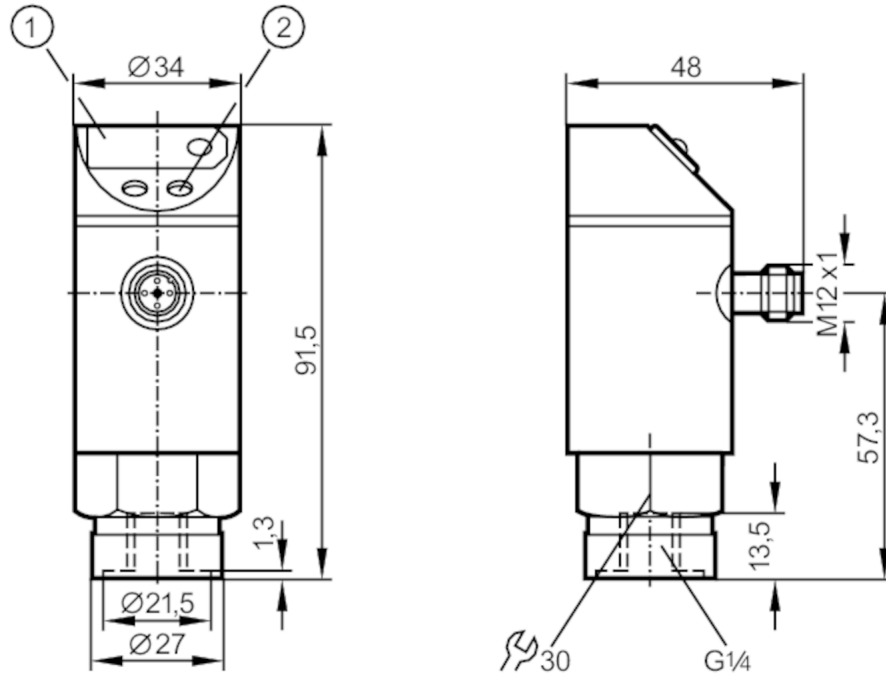
Pressure sensor with display

PN-010-RBR14-KFPKG/US/ IV

Article no longer available - archive entry

Alternative articles: PN3004

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming button



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
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]	20...30 DC
Current consumption [mA]	< 60
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III

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Reverse polarity protection		yes
Power-on delay time [s]		0.2
Integrated watchdog		yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
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Outputs

Total number of outputs		2
Output signal		switching signal; analogue signal; (configurable)
Electrical design		PNP
Number of digital outputs		1
Max. voltage drop switching output DC [V]		2
Permanent current rating of switching output DC [mA]		250
Number of analogue outputs		1
Analogue current output [mA]		4...20
Max. load [Ω]		500
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]		0.1...10
Reset point rP [bar]		0.05...9.95
In steps of [bar]		0.05

Accuracy / deviations

Switch point accuracy [% of the final value]		< ± 1,5
Repeatability [% of the final value]		< ± 0,25; (with temperature fluctuations < 10 K)
Characteristics deviation [% of the final value]		< ± 1,0
Temperature drift per 10 K		< ± 0.3

Response times

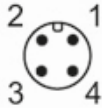
Switching frequency for a given set response time of one output	Response time [ms]	3	6	10	17	30	60	125	250	500
	Switching frequency [Hz]	170	80	50	30	16	8	4	2	1
Response time [ms]	at rectangular pressure characteristic; switch point (SPx) = 70 %; reset point (rPx) = 30 %									
Delay time programmable dS, dr [s]	0, 0,2,...10, 11,...50									
Max. response time analogue output [ms]	3									

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Software / programming		
Adjustment of the switch point		programming button
Parameter setting options		hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping
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)
Mechanical data		
Materials		EPDM/X; FKM; PA; PBT; PC; PTFE; stainless steel (1.4301 / 304)
Materials (wetted parts)		stainless steel (1.4305 / 303); ceramics; FKM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 internal thread
Displays / operating elements		
Display	switching status	LED, red
	function display	7-segment LED display
	measured values	7-segment LED display
Remarks		
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		

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Connection

