PN7027

Pressure sensor with display

PN-001-RBR14-QFPKG/US/ /V

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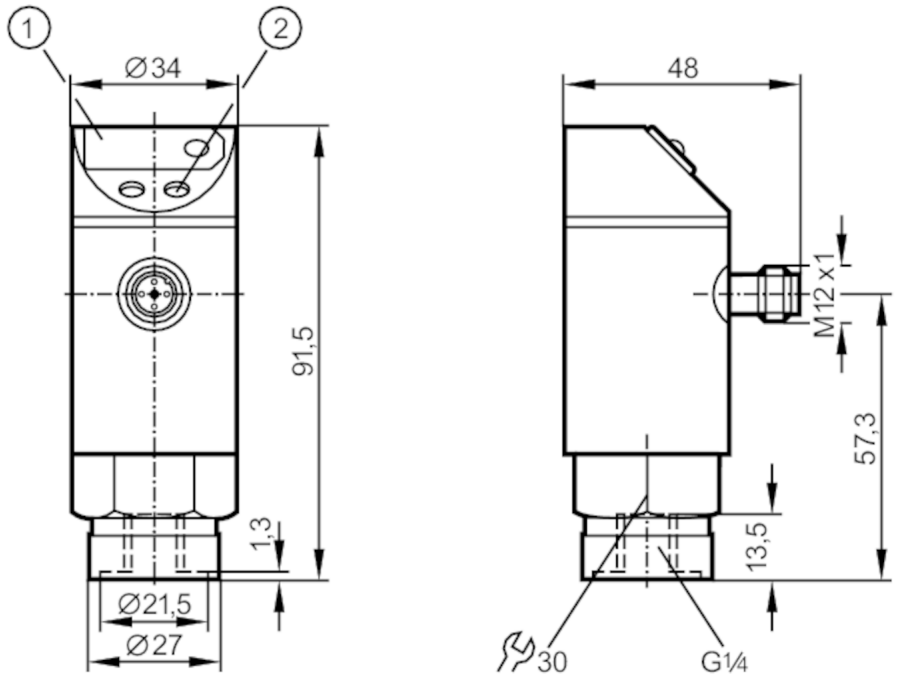

1 7-segment LED display
2 programming button

Product characteristics		
Number of inputs and outputs		Number of digital outputs: 2
Measuring range	[bar]	0...1
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]	30
Pressure rating	[bar]	10
Type of pressure		relative pressure
Electrical data		
Operating voltage	[V]	18...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: 2
Outputs		
Total number of outputs		2
Output signal		switching signal
Electrical design		PNP
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
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Measuring range	[bar]	0...1
Set point SP	[bar]	0.02...1
Reset point rP	[bar]	0.01...0.99
In steps of	[bar]	0.01
Accuracy / deviations		
Switch point accuracy [% of the final value]		< ± 1,0
Repeatability [% of the final value]		< ± 0,25; (with temperature fluctuations < 10 K)
Temperature drift per 10 K		< ± 0.3
Response times		

Switching frequency for a given set response time of one output	Response time (dAP) [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
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

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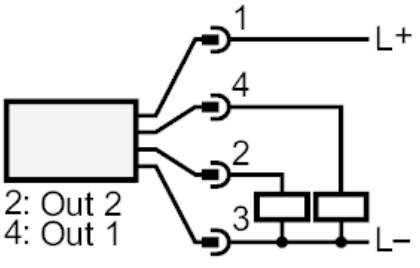
Protection	IP 65	
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
Mechanical data		
Materials	EPDM/X; FKM; PA; PBT; PC; PTFE; stainless steel (304/1.4301)	
Materials (wetted parts)	stainless steel (303/1.4305); ceramics; FKM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 internal thread	
Displays / operating elements		
Display	switching status	2 x 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

Connection