

PN7029

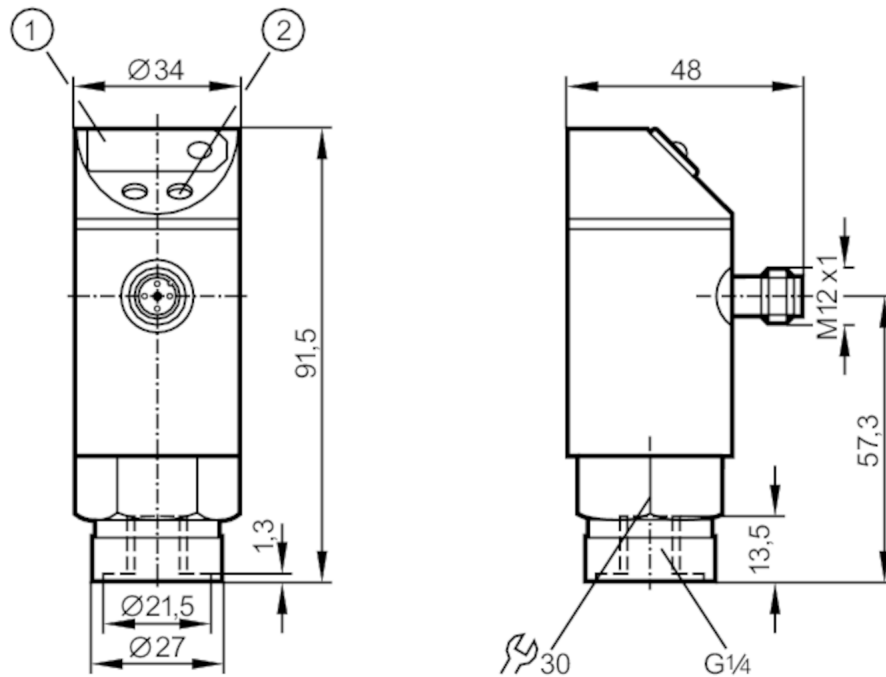


Pressure sensor with display

PN-0-1-RBR14-QFPKG/US/ IV

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- 1 7-segment LED display
- 2 Programming button



Application

Design	Vacuum resistant
Media	liquids and gases
Medium temperature [°C]	-25...80
Pressure rating [bar]	10
Min. bursting pressure [bar]	30
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
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
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Outputs										
Total number of outputs	2									
Output signal	switching signal									
Electrical design	PNP									
Number of digital outputs	2									
Output function	normally open / closed; (configurable)									
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	yes (non-latching)									
Overload protection	yes									
Measuring/setting range										
Measuring range [bar]	-1...0									
Set point SP [bar]	-0.98...0.03									
Reset point rP [bar]	-0.99...0.04									
in steps of [bar]	0.01									
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									
Reaction times										
Switching frequency for a given set response time of one output	\$Ansprechzeit (dAP) [ms]	3	6	10	17	30	60	125	250	500
	\$Schaltfrequenz [Hz]	170	80	50	30	16	8	4	2	1
Response time [ms]	at rectangular pressure characteristic; Set 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 / closed; switch-on/switch-off delay; Damping									
Operating conditions										
Ambient temperature [°C]	-25...80									
Storage temperature [°C]	-40...100									
Protection	IP 65									

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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	
Material	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	2 x LED, red
	Function display	7-segment LED display
	Measured values	7-segment LED display

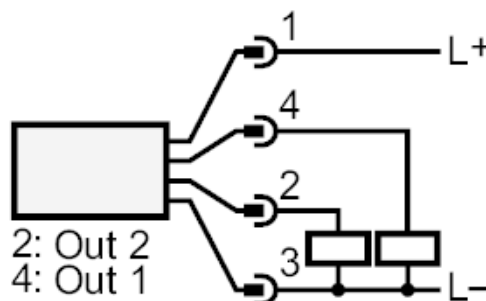
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



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