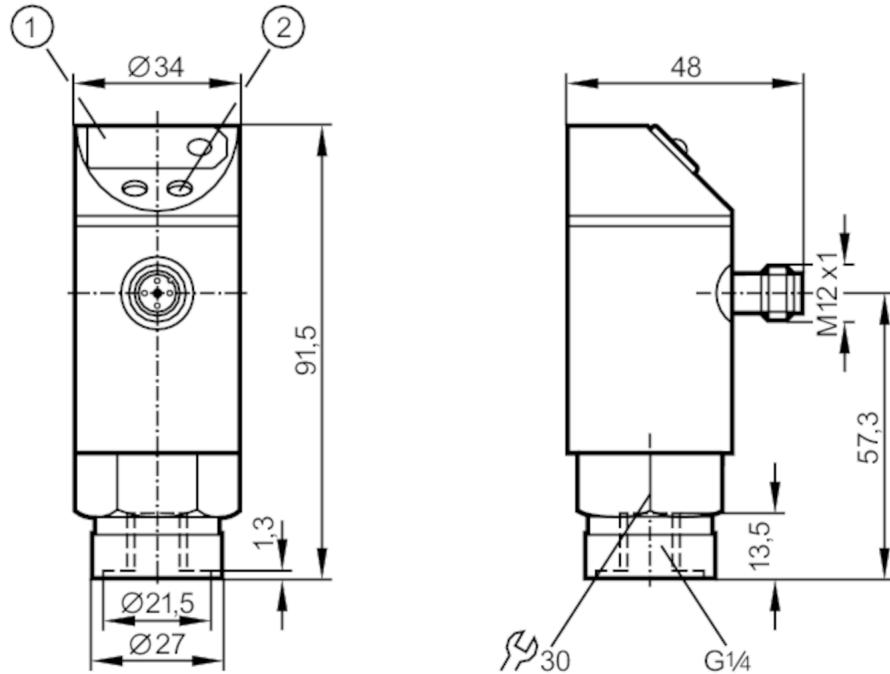


Pressure sensor with display

PN-2,5-RDR14-KFPKG/US/ IV

Article no longer available - archive entry



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...2.5
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]	50
Pressure rating [bar]	20
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

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Inputs / outputs																					
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1																				
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...2.5																				
Set point SP [bar]	0.02...2.5																				
Reset point rP [bar]	0.01...2.48																				
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																				
Response times																					
Switching frequency for a given set response time of one output	<table border="1"> <thead> <tr> <th>Response time (dAP) [ms]</th><th>3</th><th>6</th><th>10</th><th>17</th><th>30</th><th>60</th><th>125</th><th>250</th><th>500</th> </tr> </thead> <tbody> <tr> <td>Switching frequency [Hz]</td><td>170</td><td>80</td><td>50</td><td>30</td><td>16</td><td>8</td><td>4</td><td>2</td><td>1</td> </tr> </tbody> </table>	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 (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																				
Max. response time analogue output [ms]	3																				
Software / programming																					
Adjustment of the switch point	programming button																				
Parameter setting options	hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping																				

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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 (316L/1.4404); stainless steel (904L/1.4539)
Materials (wetted parts)	FKM; ceramics; stainless steel (904L/1.4539)
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.
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection

