

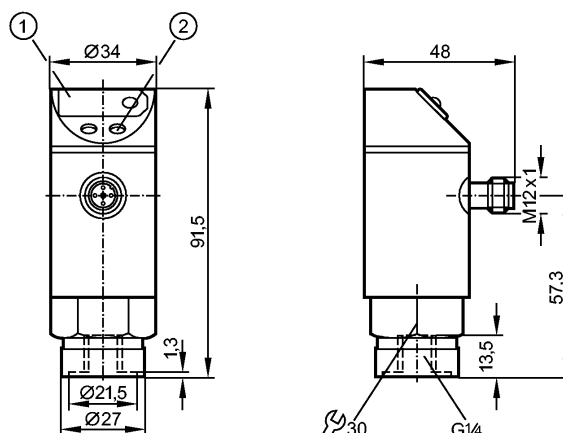
PE7024

PE-010-RBR14-QFPKG/US/ /E

Pressure sensors

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replaced by: PE7004



1: 7-segment LED display

2: Programming button

Made in Germany



Product characteristics

Electronic pressure monitor

Connector

Process connection: G ¼ I

Function programmable

2 switching outputs

7-segment LED display

Measuring range: 0...10 bar

Application

Application	Type of pressure: relative pressure Liquids and gases Cannot be used for oils
Pressure rating [bar]	50
Bursting pressure min. [bar]	150
Medium temperature [°C]	-25...80

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 60
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs

Output	2 switching outputs
Output function	2 x normally open / closed programmable
Current rating [mA]	250
Voltage drop [V]	< 2
Short-circuit protection	pulsed
Overload protection	yes

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Pressure sensors

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

Measuring / setting range

Measuring range	[bar]	0...10
Setting range		
Set point, SP	[bar]	0.10...10.0
Reset point, rP	[bar]	0.05...9.95
in steps of	[bar]	0.05

Accuracy / deviations

Deviations (% of value of measuring range)		
Switch point accuracy		< ± 1.0
Repeatability		< ± 0.25
Temperature drift (/ 10 K)		< ± 0.3
in the temperature range	[°C]	-25...80

Reaction times

Power-on delay time	[s]	0.2
Delay time programmable dS, dr	[s]	0, 0.2,...10, 11,...50
Integrated watchdog		yes

Software / programming

Programming options	hysteresis / window function; N.O. / N.C.; on delay, off delay; damping	
Adjustment of the switch point	Programming button	

Environment

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

Process connection	G ¼ I	
Materials (wetted parts)	EPDM/X (Santoprene); ceramics; stainless steel (303S22)	
Housing materials	EPDM/X (Santoprene); FPM (Viton); PA; PBT (Pocan); PC (Makrolon); PTFE; stainless steel (304S15)	
Switching cycles min.	100 million	
Weight	[kg]	0.285

Displays / operating elements

Display	Switching status	2 x LED Red
	Function display	7-segment LED display
	Measured values	7-segment LED display

Electrical connection

Connection	M12 connector; Gold-plated contacts
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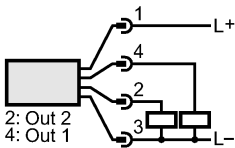
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Pressure sensors

Wiring

Programming of the output function:
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed



Complementary outputs:
output 1: = Hno, output 2: = Hnc
(with the same SP / rP)

Remarks	
Remarks	*) at rectangular pressure characteristic and setting: switch-on point (SPx) = 70 %, switch-off point (rPx) = 30 %
Pack quantity [piece]	1

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