

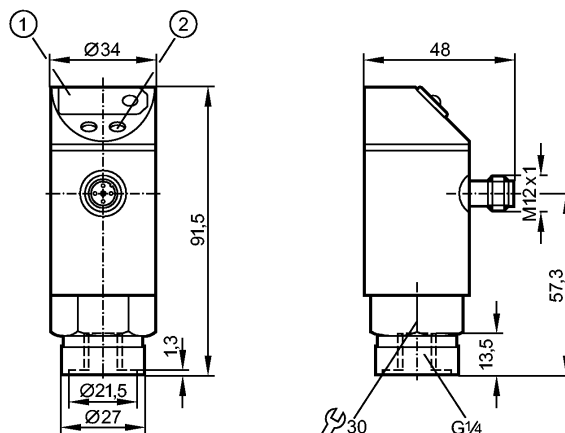
**PN7024**

PN-010-RBR14-QFPKG/US/ IV

Pressure sensors

**no longer available - archive entry**

replaced by: PN7004



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
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

**PN7024**

PN-010-RBR14-QFPKG/US/ /V

**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)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	EPDM/X (Santoprene); FPM (Viton); PA; PBT (Pocan); PC (Makrolon); PTFE; stainless steel (304S15)
Switching cycles min.	100 million
Weight [kg]	0.277

**Displays / operating elements**

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

Connection	M12 connector; Gold-plated contacts
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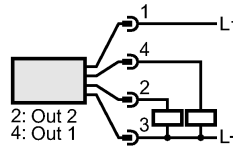
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**Wiring**

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 %
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Pack quantity	[piece]	1
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**replaced by: PN7004**