

# PN7204



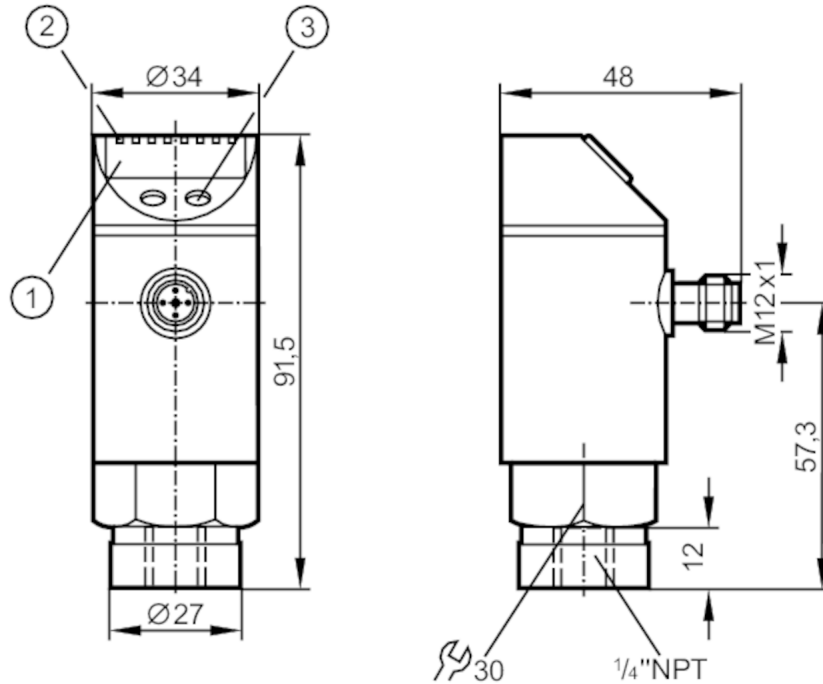
## Pressure sensor with display

PN-010-RBN14-QFRKG/US/ IV

Discontinued article

Alternative articles: PN7294

When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming button



### Product characteristics

Output signal	switching signal; IO-Link; (configurable)		
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection	threaded connection 1/4" NPT external thread		

### Application

System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	150 bar	2175 psi	15 MPa
Pressure rating	75 bar	1087 psi	7.5 Mpa
Type of pressure	relative pressure		
MAWP (for applications according to CRN)	39 bar	565 psi	3.9 MPa

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## Pressure sensor with display

PN-010-RBN14-QFRKG/US/ /V

Electrical data			
Operating voltage	[V]	18...36 DC; (according to EN 50178 SELV/PELV)	
Current consumption	[mA]	< 50	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Overvoltage protection		yes; (< 40 V)	
Power-on delay time	[s]	0.3	
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; IO-Link; (configurable)	
Electrical design		PNP/NPN	
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	
Switching frequency DC	[Hz]	< 170	
Short-circuit protection		yes	
Type of short-circuit protection		yes (non-latching)	
Measuring/setting range			
Measuring range		-1...10 bar	-14.5...145 psi
Set point SP		-0.9...10 bar	-12...145 psi
Reset point rP		-0.95...9.95 bar	-13...144 psi
In steps of		0.05 bar	1 psi
Factory setting			SP1 = 36 psi
			SP2 = 108 psi
			rP1 = 33 psi
			rP2 = 105 psi
Accuracy / deviations			
Switch point accuracy	[% of the span]	< ± 0,5	
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)	
Characteristics deviation	[% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)	
Hysteresis deviation	[% of the span]	< ± 0,25	
Long-term stability	[% of the span]	< ± 0,05; (per 6 months)	
Temperature coefficient zero point	[% of the span / 10 K]	0,2; (-20...80 °C)	
Temperature coefficient span		0,2; (-20...80 °C)	

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[% of the span / 10 K]

### Reaction times

Delay time programmable dS, dr [s] 0; 0,2...50

### Software / programming

Parameter setting options hysteresis / window; normally open / closed; Diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit

### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
Profiles	no profile	
SIO mode	yes	
Required master port class	A	
Process data analogue	1	
Process data binary	2	
Min. process cycle time [ms]	2.3	
Supported DeviceIDs	Type of operation	DeviceID
	default	330

### Operating conditions

Ambient temperature [°C] -20...80  
Storage temperature [°C] -40...100  
Protection IP 65

### Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]	219	
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

### Mechanical data

Weight [g]	265.6
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)	stainless steel (1.4305 / 303); ceramics; FKM
Min. pressure cycles	100 million
Process connection	threaded connection 1/4" NPT external thread
Restrictor element integrated	no (can be retrofitted)

### Displays / operating elements

Display	Display unit	3 x LED, green
	Switching status	2 x LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit

### Remarks

Pack quantity 1 pcs.

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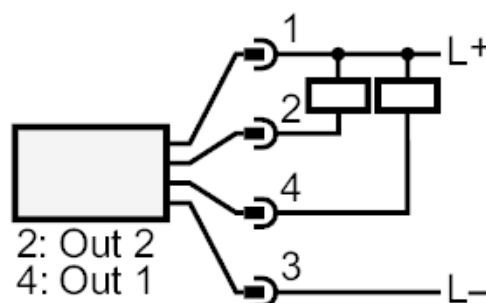
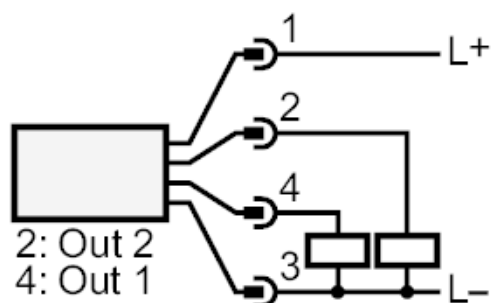


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### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



OUT1	Switching output
OUT2	Switching output
	Diagnostic output