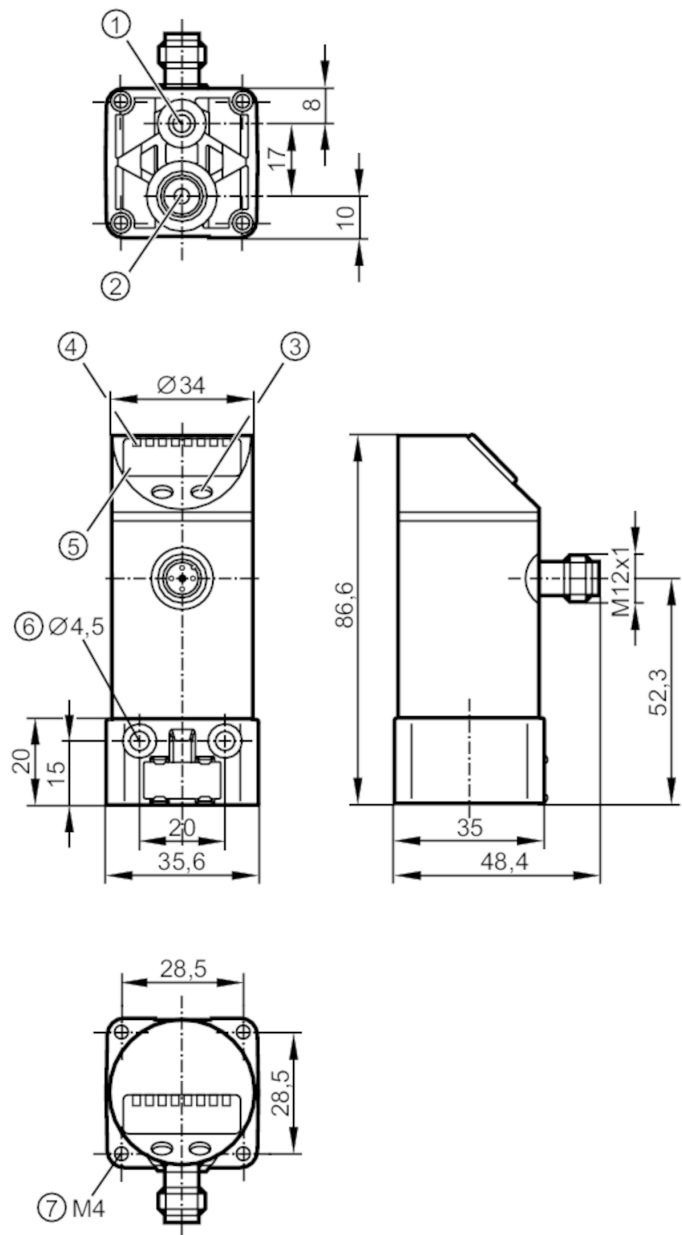


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Pressure sensor with display

PN-010-RBR18-QFRKG/US/ /V



- 1 ventilation connection M 5 Tightening torque < 2.5 Nm
- 2 main pressure connection G 1/8 Tightening torque < 8 Nm
- 3 Programming button
- 4 LEDs Display unit / Switching status
- 5 alphanumeric display 4-digit
- 6 thread M 4 Tightening torque < 2.5 Nm
- 7 thread M 4 Tightening torque < 2.5 Nm



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection	threaded connection G 1/8 Internal thread		
Application			
System	gold-plated contacts		

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Application	for industrial applications		
Media	compressed air		
Conditionally suitable for	other media on request		
Medium temperature [°C]	0...60		
Min. burst pressure	30 bar	435 psi	3 MPa
Pressure rating	20 bar	290 psi	2 MPa
Type of pressure	relative pressure; vacuum; differential pressure		

Electrical data

Operating voltage [V]	18...36 DC; (to 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		
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Outputs

Total number of outputs	2		
Output signal	switching signal		
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	-0.1...1 MPa
Set point SP	-0.9...10 bar	-13...145 psi	-0.09...1 MPa
Reset point rP	-0.95...9.95 bar	-14...144 psi	-0.095...0.995 MPa
In steps of	0.05 bar	1 psi	0.005 MPa
Factory setting		SP1 = 2.50 bar	rP1 = 2.30 bar
		SP2 = 7.50 bar	rP2 = 7.30 bar

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	< ± 0,25		

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[% of the span]		
Long-term stability		< ± 0,05; (per 6 months)
[% of the span]		
Temperature coefficient zero point		0,2; (0...60 °C)
[% of the span / 10 K]		
Temperature coefficient span		0,2; (0...60 °C)
[% 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	
Operating conditions		
Ambient temperature	[°C]	-25...85
Storage temperature	[°C]	-25...85
Protection		IP 67
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 61000-4-5 Surge	0,5/1 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)
MTTF	[years]	284
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	173.5
Housing		tubular
Dimensions	[mm]	Ø 34 / L = 86.6
Material		stainless steel (1.4301 / 304); PPS; PC; PBT; PEI; FKM
Materials (wetted parts)		stainless steel (1.4567 / 304Cu); brass; FKM; PPS; silicon (coated)
Min. pressure cycles		50 million
Process connection		threaded connection G 1/8 Internal thread
Displays / operating elements		
Display	Display unit	3 x LED, green
	Switching status	2 x LED, yellow
	Function display	alphanumeric display, 4-digit
Accessories		
Accessories (optional)	mounting set for DIN rail: TH 35-7,5 / EN60715, E37340	
	Adapter: R1/8 - R1/8, E37350	
	Thread extension: 1/8", E30075	
	push-in air fitting for tube: Ø 6 mm, E30076	
	push-in air fitting for tube: Ø 8 mm, E30077	

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Pressure sensor with display

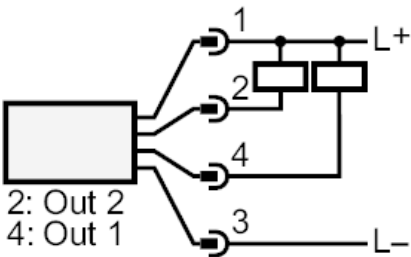
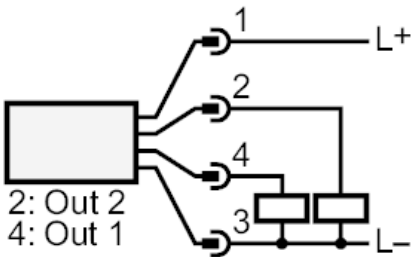
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Remarks

Pack quantity 1 pcs.

Electrical connection

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



OUT1 Switching output
OUT2 Switching output
Diagnostic output