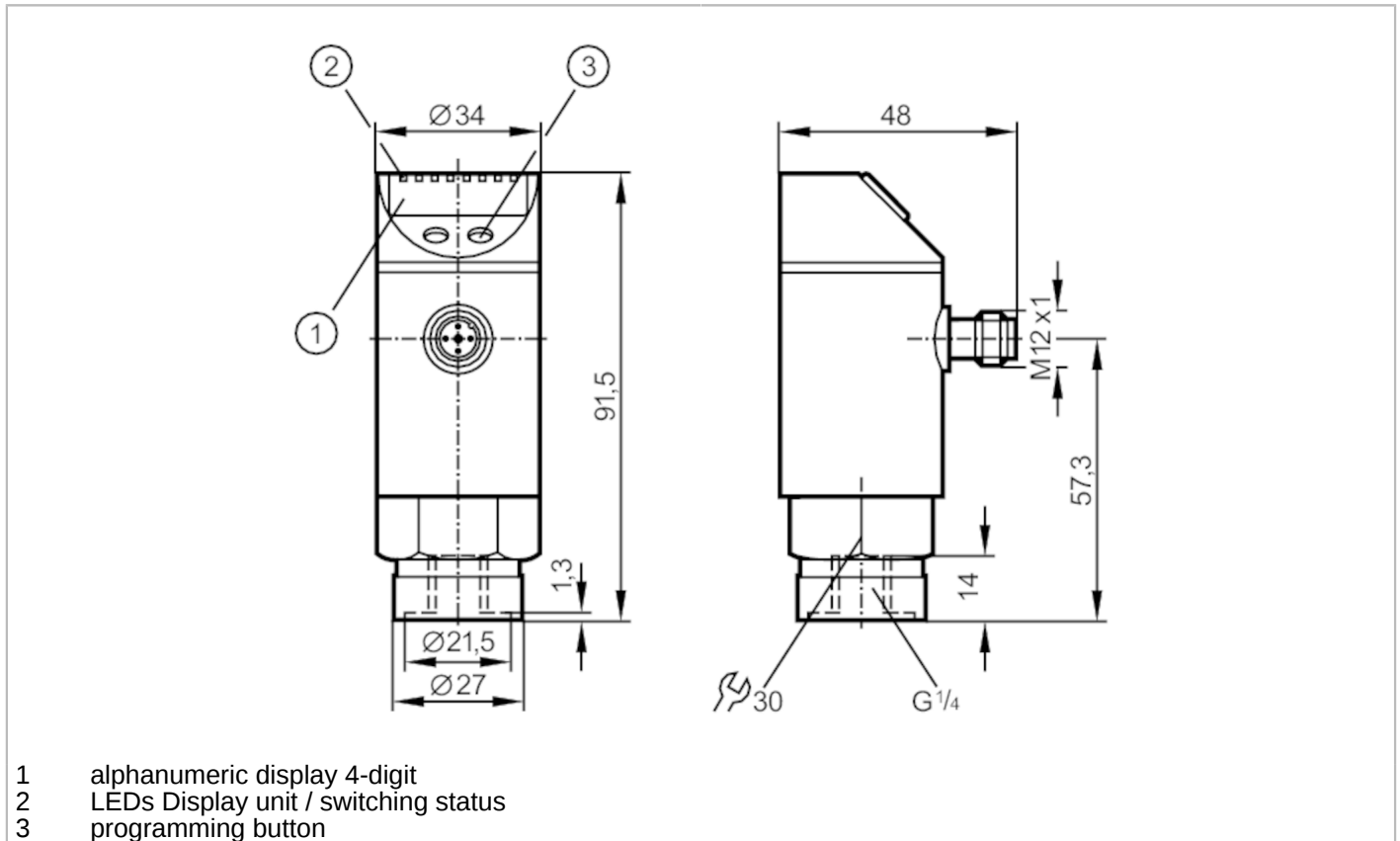


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Pressure sensor with display

PN-010-RBR14-QFPKG/US/ IV



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



Product characteristics

Output signal	switching signal			
Measuring range	-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Process connection	threaded connection G 1/4 internal thread			

Application

Special feature	Gold-plated contacts			
Media	liquids and gases			
Medium temperature [°C]	-25...80			
Pressure rating	75 bar	1087 psi	7.5 MPa	
Min. bursting pressure	150 bar	2175 psi	15 MPa	
Type of pressure	relative pressure			

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			

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Inputs / outputs				
Number of inputs and outputs	Number of digital outputs: 2			
Outputs				
Total number of outputs	2			
Output signal	switching signal			
Electrical design	PNP/NPN			
Number of digital outputs	2			
Output function	normally open / normally closed; (parameterisable)			
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	pulsed			
Measuring/setting range				
Measuring range	-1...10 bar	-14.5...145 psi	-100...1000 kPa	-0.1...1 MPa
Set point SP	-0.9...10 bar	-12...145 psi	-0.09...1 MPa	
Reset point rP	-0.95...9.95 bar	-13...144 psi	-0.095...0.995 MPa	
In steps of	0.05 bar	1 psi	0.005 MPa	
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]	< ± 0,5; (linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)			
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 [% of the span / 10 K]	0,2; (-20...80 °C)			
Response times				
Delay time programmable dS, dr [s]	0; 0,2...50			
Software / programming				
Parameter setting options	hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit			
Operating conditions				
Ambient temperature [°C]	-20...80			
Storage temperature [°C]	-40...100			
Protection	IP 65			

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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
Vibration resistance	DIN IEC 68-2-6	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]	259	
Materials	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 G 1/4 internal 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.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated

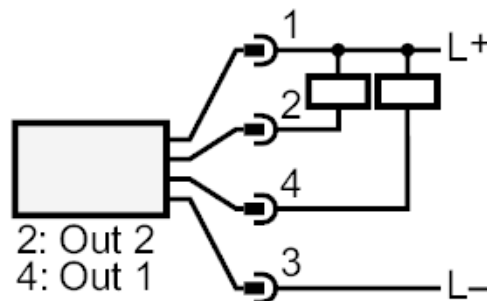
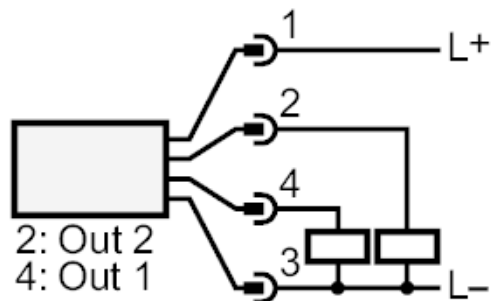


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OUT1	switching output
OUT2	switching output
	Diagnostic output