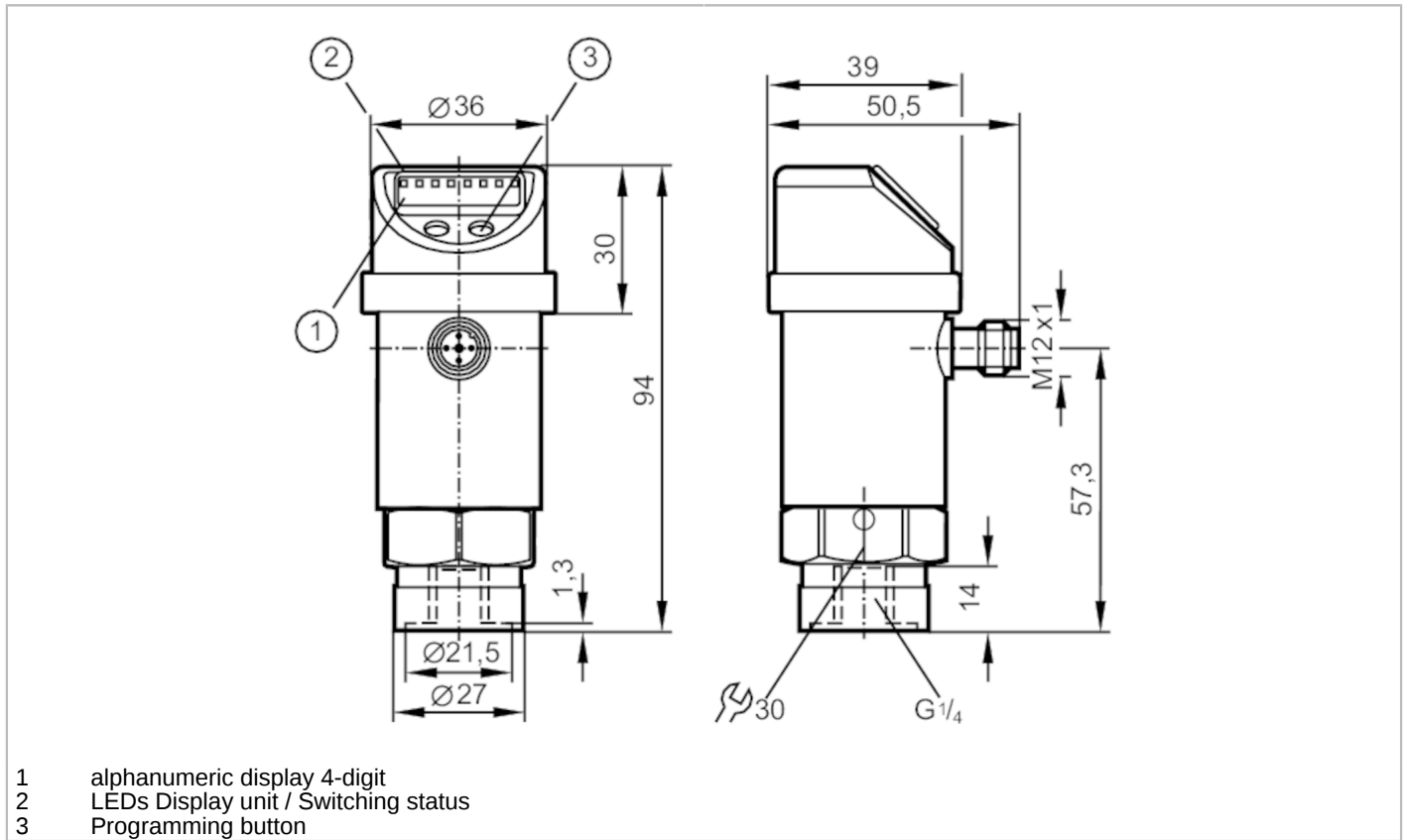


PN014A



Pressure sensor with display

PN-010-RBR14-QFPKG/US/3D IV



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



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2			
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

System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-20...60		
Min. bursting pressure	150 bar	2175 psi	15 MPa
Pressure rating	75 bar	1087 psi	7.5 MPa
Type of pressure	relative pressure; vacuum		

Electrical data

Operating voltage [V]	18...36 DC; (to SELV/PELV)		
Current consumption [mA]	< 50		
Protection class	III		
Reverse polarity protection	yes		
Overtoltage protection	yes; (< 40 V)		
Power-on delay time [s]	0.3		
Integrated watchdog	yes		

PN014A



Pressure sensor with display

PN-010-RBR14-QFPKG/US/3D /V

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 -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
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 [% 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; (0...60 °C)
Temperature coefficient span [% of the span / 10 K]	0,2; (0...60 °C)
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)

PN014A



Pressure sensor with display

PN-010-RBR14-QFPKG/US/3D /V

IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	no profile	
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	2	
Min. process cycle time [ms]	2.3	
Supported DeviceIDs	Type of operation default	DeviceID 311

Operating conditions		
Ambient temperature [°C]		-20...60
Storage temperature [°C]		-40...100
Protection		IP 65

Tests / approvals		
ATEX marking	Ex II 3D Ex tc IIIC T80°C Dc X	
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]	194	
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data		
Weight [g]	304	
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PEI; FKM; EPDM/X; 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.	

PN014A

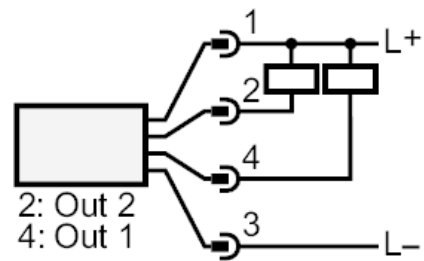
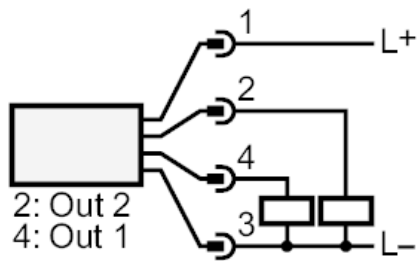


Pressure sensor with display

PN-010-RBR14-QFPKG/US/3D IV

Electrical connection

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



OUT1	Switching output IO-Link
OUT2	Switching output Diagnostic output