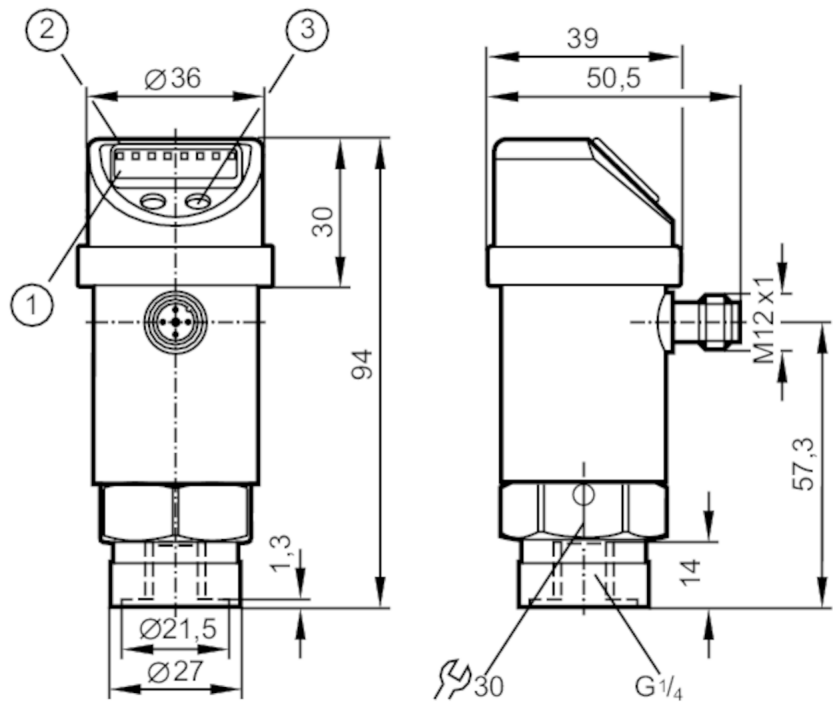


PN009A



Pressure sensor with display

PN-0-1BRBR14-MFPKG/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: 1; Number of analog outputs: 1	
Measuring range	-1...0 bar	-1000...0 mbar
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 [mbar]	30000
Pressure rating [mbar]	10000
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
Overvoltage protection	yes; (< 40 V)
Power-on delay time [s]	0.3
Integrated watchdog	yes



Pressure sensor with display

PN-0-1BRBR14-MFPKG/US/3D IV

Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analog outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analog signal; (configurable)	
Electrical design		PNP	
Number of digital outputs		1	
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	
Number of analog outputs		1	
Analog current output	[mA]	4...20	
Max. load	[Ω]	500	
Analog voltage output	[V]	0...10	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		yes (non-latching)	
Measuring/setting range			
Measuring range		-1...0 bar	-1000...0 mbar
Set point SP	[mbar]	-990...0	
Reset point rP	[mbar]	-995...-5	
In steps of	[mbar]	5	
Factory setting		SP1 = -750 mbar	rP1 = -770 mbar
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		0; 0,2...50	
Max. response time analog output		3	



Pressure sensor with display

PN-0-1BRBR14-MFPKG/US/3D /V

Software / programming		
Adjustment of the switch point	Programming button	
Parameter setting options	hysteresis / window; normally open / closed; switch-on/ switch-off delay; Damping; Display unit; current/voltage output	
Operating conditions		
Ambient temperature	[°C]	-20...60
Storage temperature	[°C]	-40...100
Protection	IP 65	
Tests / approvals		
ATEX marking	Ⓔ 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]	213
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; 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	4 x LED, green
	Switching status	LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Display unit	mbar; kPa; psi; inHg	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		

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Connection

