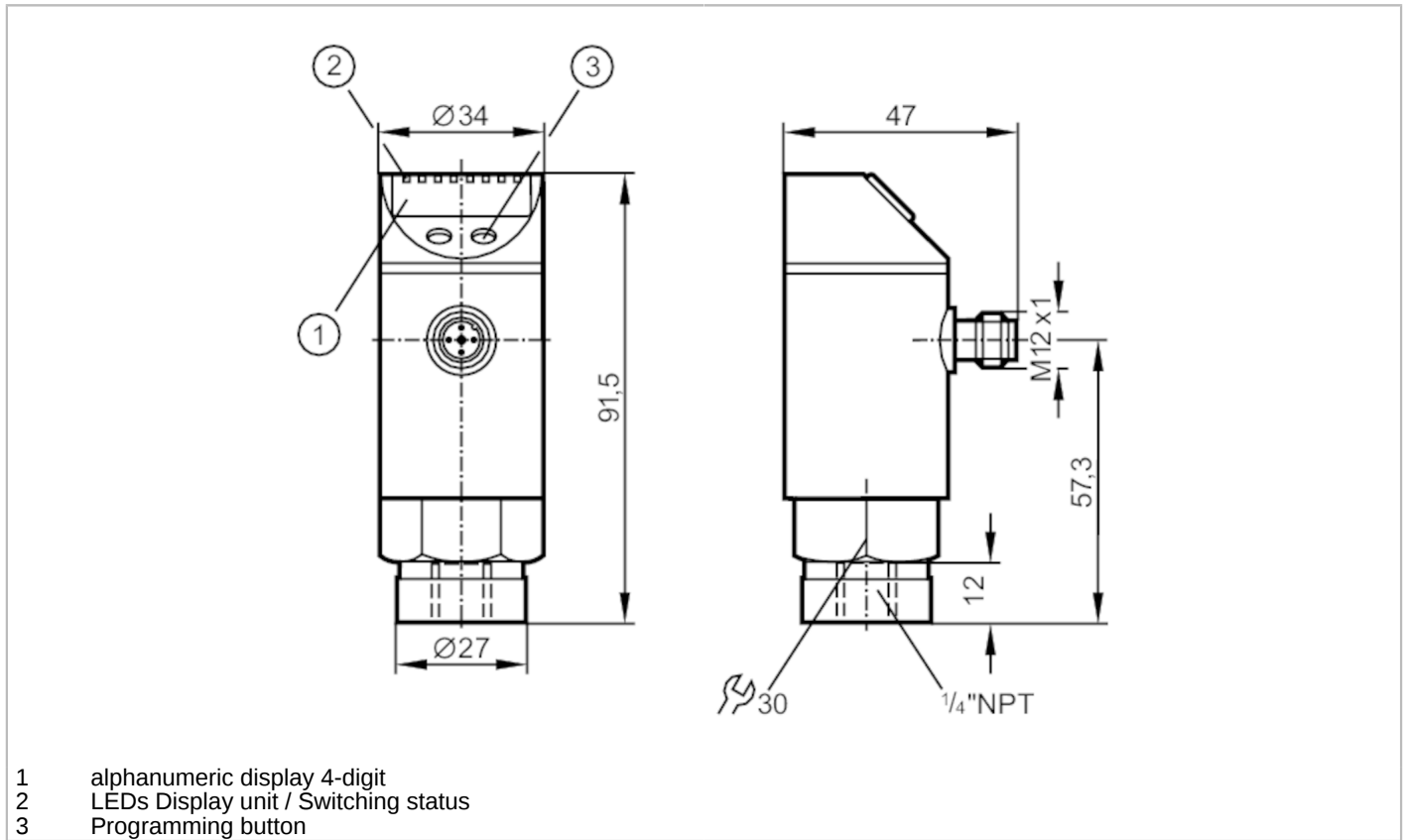


PY2209



Pressure sensor with display

PN-1-1BRBN14-MFRKG/US/ 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; Number of analog outputs: 1
Measuring range [psi]	-15...15
Process connection	threaded connection 1/4" NPT Internal thread

Application

System	gold-plated contacts
Application	for industrial applications
Media	liquids and gases
Medium temperature [°C]	-25...80
Min. bursting pressure [psi]	725
Pressure rating [psi]	290
Type of pressure	relative pressure

Electrical data

Operating voltage [V]	18...32 DC; (to SELV/PELV)
Current consumption [mA]	< 35
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.3
Integrated watchdog	yes



Pressure sensor with display

PN-1-1BRBN14-MFRKG/US/ IV

Inputs / outputs							
Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1						
Outputs							
Total number of outputs	2						
Output signal	switching signal; analog signal; (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]	< 500						
Number of analog outputs	1						
Analog current output [mA]	4...20; (scalable 1:4)						
Max. load [Ω]	(U _b - 10 V) / 20 mA						
Analog voltage output [V]	0...10; (scalable 1:4)						
Min. load resistance [Ω]	2000						
Short-circuit protection	yes						
Type of short-circuit protection	yes (non-latching)						
Overload protection	yes						
Measuring/setting range							
Measuring range [psi]	-15...15						
Set point SP [psi]	-14.8...15						
Reset point rP [psi]	-14.9...14.9						
Analog start point [psi]	-15...7.5						
Analog end point [psi]	-7.5...15						
In steps of [psi]	0.1						
Factory setting	<table border="1"> <tr> <td>SP1 = -7.5 psi</td> <td>rP1 = -8.1 psi</td> </tr> <tr> <td>SP2 = 7.5 psi</td> <td>rP2 = 6.9 psi</td> </tr> <tr> <td>ASP = -15 psi</td> <td>AEP = 15 psi</td> </tr> </table>	SP1 = -7.5 psi	rP1 = -8.1 psi	SP2 = 7.5 psi	rP2 = 6.9 psi	ASP = -15 psi	AEP = 15 psi
SP1 = -7.5 psi	rP1 = -8.1 psi						
SP2 = 7.5 psi	rP2 = 6.9 psi						
ASP = -15 psi	AEP = 15 psi						
Accuracy / deviations							
Switch point accuracy [% of the span]	< ± 0,4; (Turn down 1:1)						
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)						
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)						
Hysteresis deviation [% of the span]	< ± 0,1; (Turn down 1:1)						
Long-term stability [% of the span]	< ± 0,1; (Turn down 1:1; per year)						
Temperature coefficient zero point [% of the span / 10 K]	< ± 0,2; (-25...80 °C)						
Temperature coefficient span	< ± 0,2; (-25...80 °C)						

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Pressure sensor with display

PN-1-1BRBN14-MFRKG/US/ IV

[% of the span / 10 K]

Reaction times		
Response time	[ms]	< 1.5
Damping process value dAP	[s]	0.01...4
Damping for the analog output dAA	[s]	0.01...4
Max. response time analog output	[ms]	3
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; Zero point; span	
Operating conditions		
Ambient temperature	[°C]	-25...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]	167.14
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	256.5
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 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
Display unit	mbar; kPa; psi; inH2O; inHg	
Remarks		
Pack quantity	1 pcs.	

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Pressure sensor with display

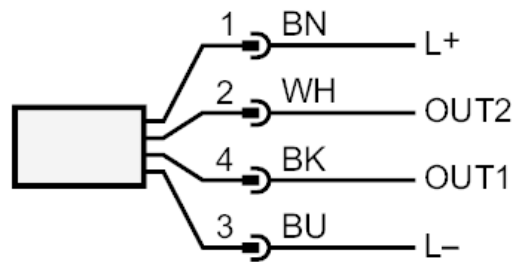
PN-1-1BRBN14-MFRKG/US/ IV

Electrical connection

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



Connection



OUT1	Switching output
OUT2	Switching output analog output
	Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white