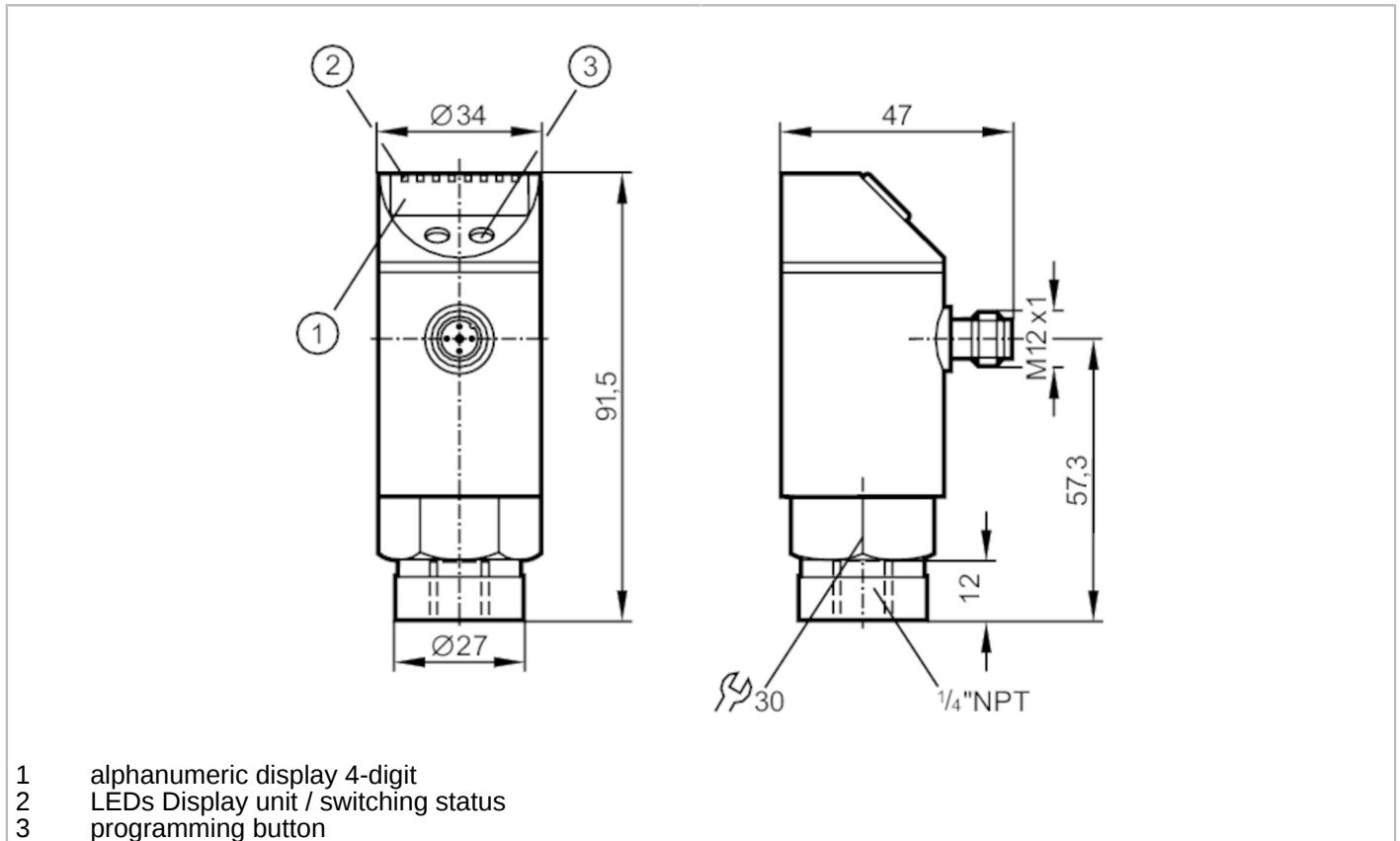


PY2209



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

Output signal	switching signal; analogue signal; (configurable)
Measuring range [psi]	-15...15
Process connection	threaded connection 1/4 NPT external thread

Application

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

Electrical data

Operating voltage [V]	18...32 DC; (according to EN 50178 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 analogue outputs: 1	
Outputs		
Total number of outputs	2	
Output signal	switching signal; analogue signal; (configurable)	
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]	< 500	
Number of analogue outputs	1	
Analogue current output [mA]	4...20; (scalable 1:4)	
Max. load [Ω]	($U_b - 10 V$) / 20 mA	
Analogue voltage output [V]	0...10; (scalable 1:4)	
Min. load resistance [Ω]	2000	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
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	
Analogue start point [psi]	-15...7.5	
Analogue end point [psi]	-7.5...15	
In steps of [psi]	0.1	
Factory setting	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]	< $\pm 0,4$; (Turn down 1:1)	
Repeatability [% of the span]	< $\pm 0,1$; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation [% of the span]	< $\pm 0,25$ (BFSL) / < $\pm 0,5$ (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)	
Hysteresis deviation [% of the span]	< $\pm 0,1$; (Turn down 1:1)	
Long-term stability [% of the span]	< $\pm 0,1$; (Turn down 1:1; per year)	
Temperature coefficient zero point [% of the span / 10 K]	< $\pm 0,2$; (-25...80 °C)	
Temperature coefficient span	< $\pm 0,2$; (-25...80 °C)	

PY2209



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[% of the span / 10 K]

Response times		
Response time [ms]	< 1.5	
Damping for the switching output dAP [s]	0.01...4	
Damping for the analogue output dAA [s]	0.01...4	
Max. response time analogue output [ms]	3	
Software / programming		
Parameter setting options	hysteresis / window; normally open / normally 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	
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 1/4 NPT external 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.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		

PY2209

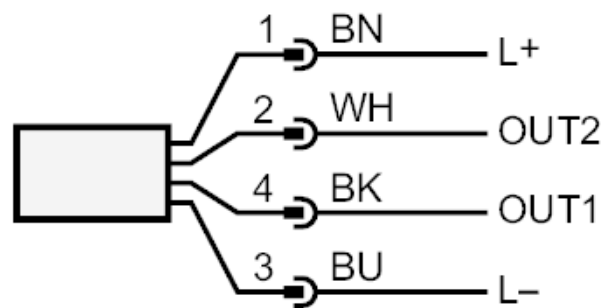


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Connection



OUT1 switching output

OUT2 switching output

analogue output

Core colours :

BK = black

BN = brown

BU = blue

WH = white