



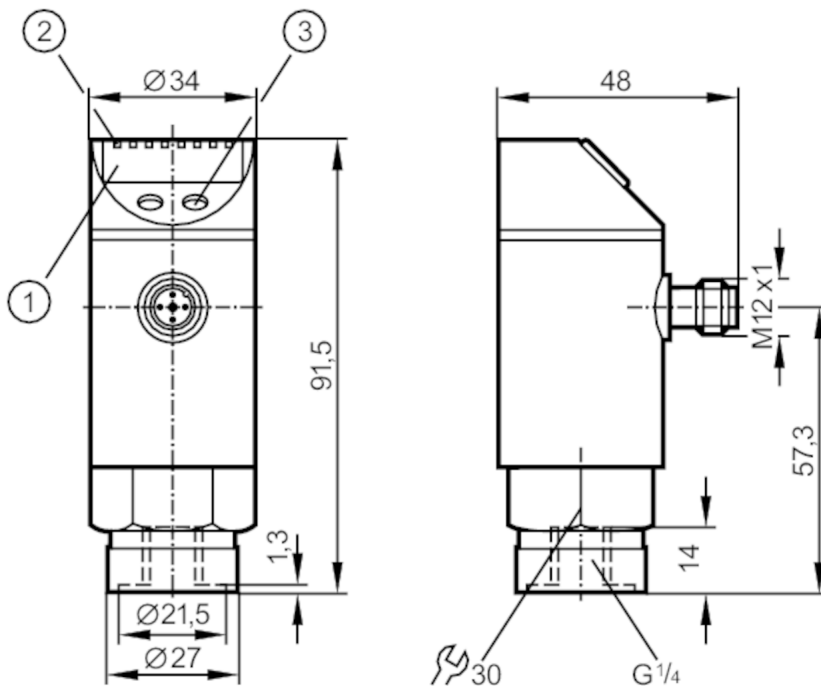
Pressure sensor with display

PN-+,2BRBR14-MFRKG/US IV

Article no longer available - archive entry

Alternative articles: PN2098 or PN2169

When selecting an alternative article and accessories please note that technical data may differ!



- 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 analogue outputs: 1			
Measuring range	-0.25...0.25 bar	-250...250 mbar	-3.63...3.63 psi	-25...25 kPa
Process connection	threaded connection G 1/4 internal thread			

Application

Special feature	Gold-plated contacts		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	30000 mbar	435 psi	3000 kPa
Pressure rating	6000 mbar	87 psi	600 kPa
Type of pressure	relative pressure		

Electrical data

Operating voltage [V]	18...32 DC
Current consumption [mA]	< 50
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes



Pressure sensor with display

PN-+,2BRBR14-MFRKG/US IV

Power-on delay time	[s]	0.5
Integrated watchdog		yes
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 1; 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		1
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]	6
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		-0.25...0.25 bar -250...250 mbar -3.63...3.63 psi -25...25 kPa
Set point SP		-248...250 mbar -3.61...3.63 psi -24.8...25 kPa
Reset point rP		-250...248 mbar -3.63...3.6 psi -25...24.8 kPa
Analogue start point		-250...125 mbar -3.63...1.82 psi -25...12.5 kPa
Analogue end point		-125...250 mbar -1.82...3.63 psi -12.5...25 kPa
In steps of		1 mbar 0.01 psi 0.1 kPa
Accuracy / deviations		
Switch point accuracy	[X21]	< ± 0,2; (Turn down 1:1)
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[X21]	< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)
Linearity deviation	[X21]	< ± 0,1; (Turn down 1:1)
Hysteresis deviation	[X21]	< ± 0,1; (Turn down 1:1)
Long-term stability	[X21]	< ± 0,1; (Turn down 1:1; per year)
Temperature coefficient zero point	[X22]	< ± 0,2; (0...70 °C)
Temperature coefficient span	[X22]	< ± 0,2; (0...70 °C)
Response times		
Response time	[ms]	< 100
Damping process value dAP	[s]	0.1...100



Pressure sensor with display

PN-+,2BRBR14-MFRKG/US IV

Damping for the analogue output dAA [s]	0.1...100
Max. response time analogue output [ms]	100

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	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 [ANN]	181.26	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight [g]	287.5
Materials	stainless steel (1.4301 / 304); PC; PBT; PA; FKM
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; % of the span	

Remarks

Pack quantity	1 pcs.
---------------	--------

Electrical connection

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



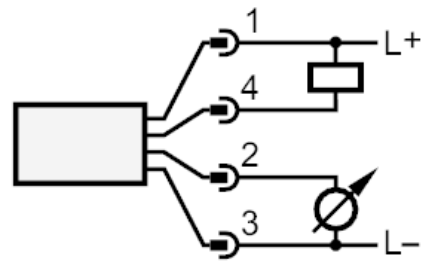
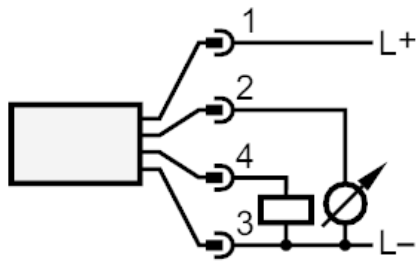
PY2068



Pressure sensor with display

PN-+,2BRBR14-MFRKG/US IV

Connection



OUT1
OUT2

switching output
analogue output