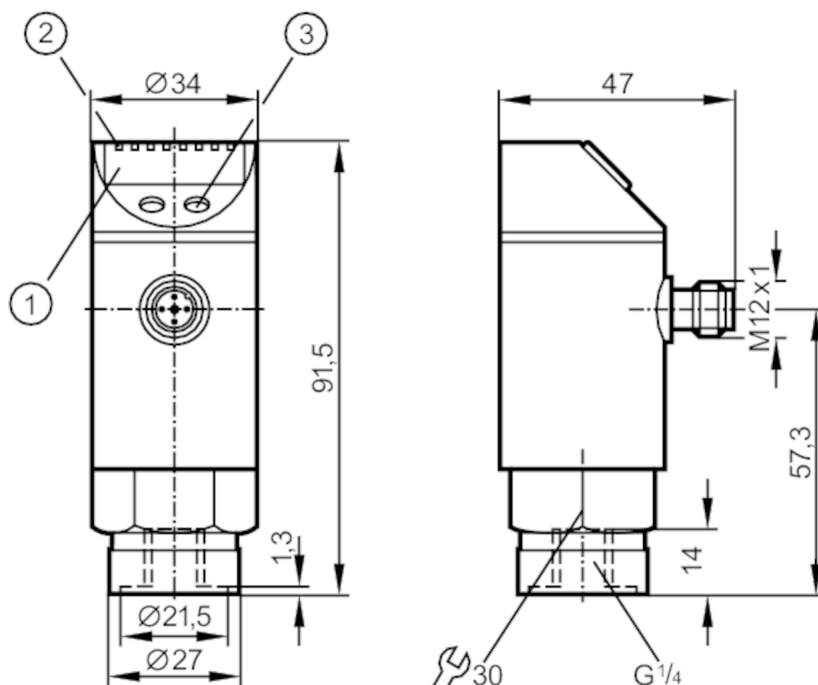


PN2069



Pressure sensor with display

PN-+,5BRBR14-MFRKG/US/ IV



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



Application	
Media	liquids and gases
Medium temperature [°C]	-25...80
Pressure rating [mbar]	10000
Min. bursting pressure [mbar]	30000
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
Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1



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Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; IO-Link; (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]	(Ub - 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	[mbar]	-500...500	
Set point SP	[mbar]	-496...500	
Reset point rP	[mbar]	-500...496	
Analogue start point	[mbar]	-500...250	
Analogue end point	[mbar]	-250...500	
In steps of	[mbar]	1	
Factory setting		SP1 = -250 mbar	rP1 = -270 mbar
		SP2 = 250 mbar	rP2 = 230 mbar
		ASP = -500 mbar	AEP = 500 mbar
Accuracy / deviations			
Switch point accuracy	[% of the span]	< ± 0,4; (Turn down 1:1)	
Repeatability			
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			
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	[% of the span / 10 K]	< ± 0,2; (-25...80 °C)	



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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	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.0	
IO-Link device ID	65 d / 00 00 41 h	
Profiles	no profile	
SIO mode	yes	
Required master port type	A	
Process data analogue	1	
Process data binary	2	
Min. process cycle time	[ms]	2.3
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	[years]	131
Mechanical data		
Weight	[g]	261.6
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 G 1/4 internal thread	

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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	

Remarks	
Notes	discontinued article
Pack quantity	1 pcs.

Electrical connection

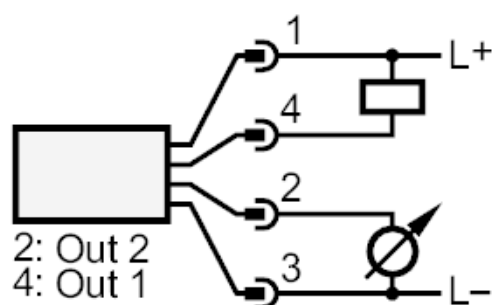
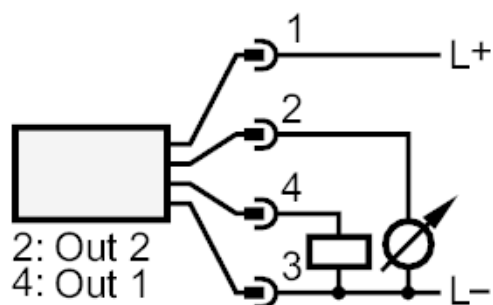
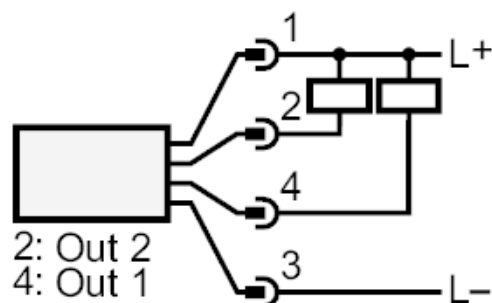
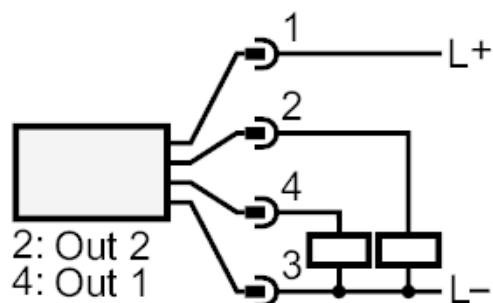
Connector: 1 x M12; Contacts: gold-plated



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Connection



OUT1	switching output
OUT2	switching output
	analogue output