

PE7009

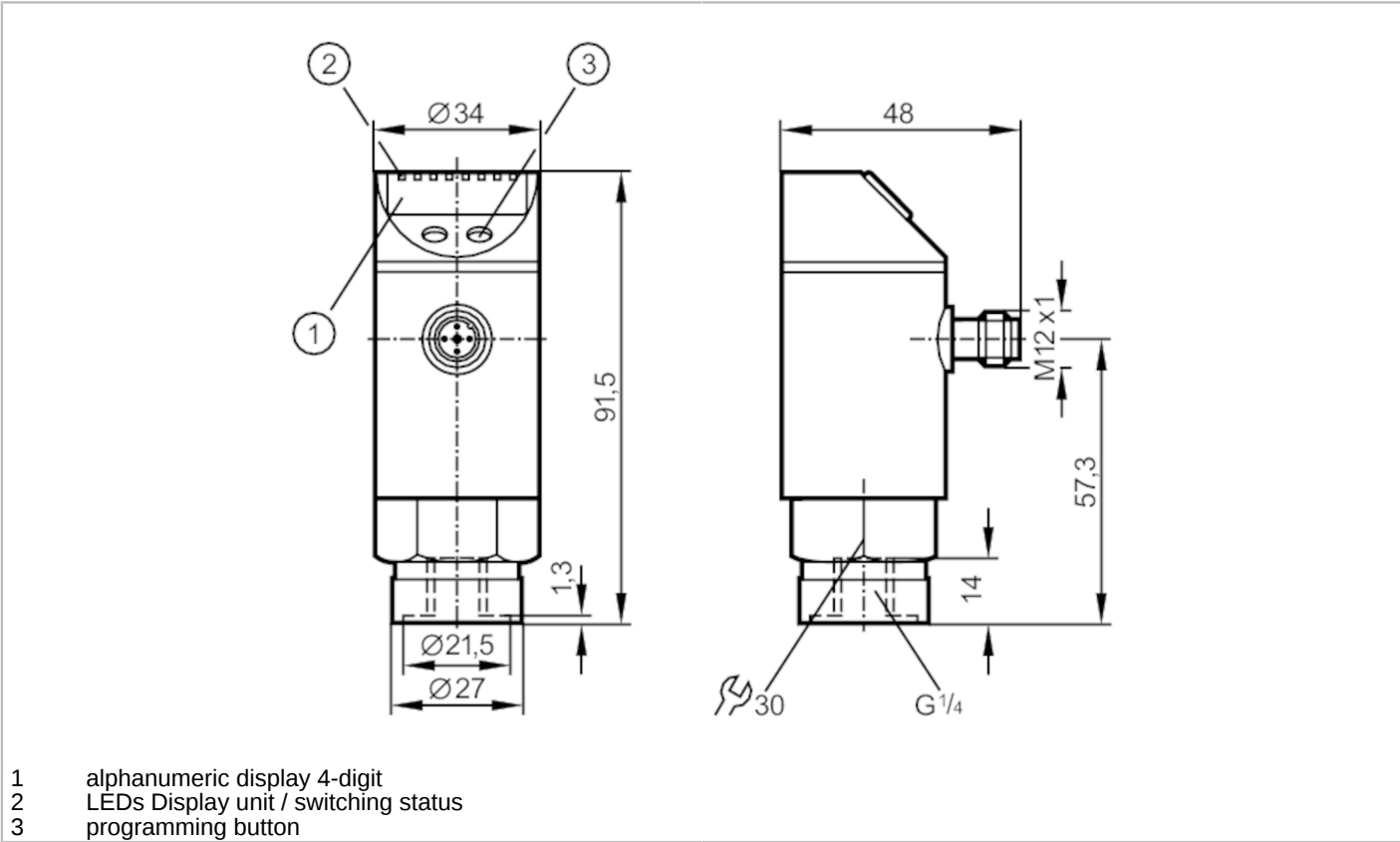


Pressure sensor with display

PE-1-1BRDR14-QFRKG/US/ /E

phase-out article

Alternative articles: PE2099 or PE2599
When selecting an alternative article and accessories please note that technical data may differ!



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	-1...1 bar	-1000...1000 mbar
Process connection	threaded connection G 1/4 internal thread	
Application		
Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	liquids and gases	
Cannot be used for	oils	
Medium temperature [°C]	-25...80	
Min. bursting pressure [mbar]	50000	
Pressure rating [mbar]	20000	
Type of pressure	relative pressure; vacuum	
Electrical data		
Operating voltage [V]	to SELV/PELV	
Current consumption [mA]	< 50	
Min. insulation resistance [MΩ]	100; (500 V DC)	



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Protection class	III
Reverse polarity protection	yes
Overvoltage protection	yes; (< 40 V)
Power-on delay time [s]	0.3
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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Outputs

Total number of outputs	2
Output signal	switching 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]	< 170
Short-circuit protection	yes
Type of short-circuit protection	pulsed

Measuring/setting range

Measuring range	-1...1 bar	-1000...1000 mbar
Set point SP [mbar]	-970...1000	
Reset point rP [mbar]	-980...990	
In steps of [mbar]	10	
Factory setting	SP1 = -500 mbar	rP1 = -540 mbar
	SP2 = 500 mbar	rP2 = 460 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; (-20...80 °C)
Temperature coefficient span [% of the span / 10 K]	0,2; (-20...80 °C)

Response times

Delay time programmable dS, dr [s]	0; 0,2...50
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Software / programming		
Parameter setting options		hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
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	
Supported DeviceIDs	Type of operation	DeviceID
	default	314
Operating conditions		
Ambient temperature [°C]	-20...80	
Storage temperature [°C]	-40...100	
Protection	IP 67	
Tests / approvals		
EMC	EN 61000-6-2	
	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]	237	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	262	
Materials	stainless steel (304/1.4301); stainless steel (316L/1.4404); PC; PBT; PEI; FKM; EPDM/X; PTFE	
Materials (wetted parts)	stainless steel (316L/1.4404); ceramics (99.9 % Al2O3); sealing of the measuring cell: EPDM	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 internal thread	
Displays / operating elements		
Display	Display unit	4 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; inHg	
Remarks		
Pack quantity	1 pcs.	

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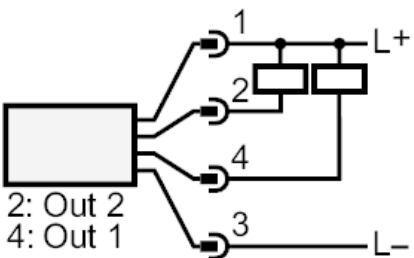
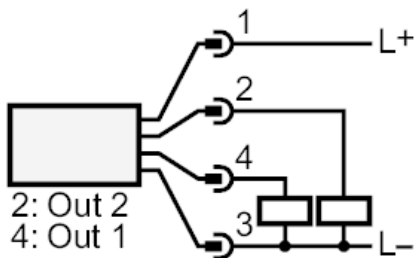


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Electrical connection

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



OUT1 switching output
OUT2 switching output
 Diagnostic output