

PG2452



Pressure sensor with analogue display

PG-100-REB12-MFRKG/US/ /P



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	0...100 bar	0...1449 psi
Process connection	threaded connection G 1/2 external thread	
Application		
Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	liquids and gases	
Conditionally suitable for	use in gases at pressures > 25 bar only on request	
Medium temperature [°C]	-25...80	
Min. bursting pressure	700 bar	9400 psi
Pressure rating	300 bar	4350 psi
Type of pressure	relative pressure	
Electrical data		
Operating voltage [V]	18...32 DC	
Current consumption [mA]	< 70; (24 V)	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	



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Reverse polarity protection	yes
Power-on delay time [s]	6
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
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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]	75
Number of analogue outputs	1
Analogue current output [mA]	4...20, invertible; (scalable)
Max. load [Ω]	(U _b - 10 V) / 20 mA
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Measuring/setting range

Measuring range	0...100 bar	0...1449 psi
Set point SP	0.4...160 bar	6...2322 psi
Reset point rP	0...159.6 bar	0...2316 psi
Analogue start point	0...135 bar	0...1959 psi
Analogue end point	25...160 bar	363...2322 psi
In steps of	0.2 bar	3 psi

Accuracy / deviations

Switch point accuracy [X21]	< ± 0,5; (Turn down 1:1)
Repeatability [X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation [X21]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line)
Hysteresis deviation [X21]	< ± 0,25; (Turn down 1:1)
Long-term stability [X21]	< ± 0,1; (Turn down 1:1; per 6 months)
Temperature coefficient zero point [X22]	< ± 0,2; (0...70 °C)
Temperature coefficient span [X22]	< ± 0,2; (0...70 °C)

Response times

Response time [ms]	< 9
Damping process value dAP [s]	0.01...30
Damping for the analogue output dAA [s]	0.01...30
Step response time analogue output [ms]	28



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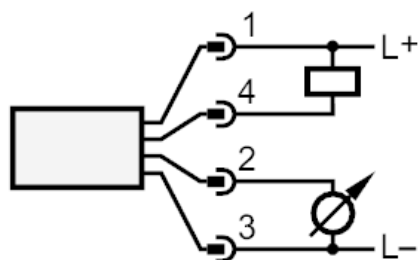
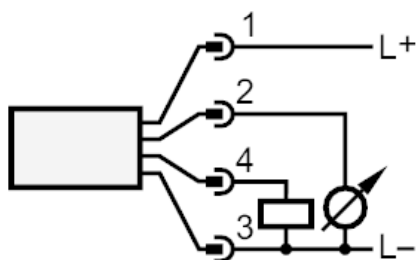
Operating conditions		
Ambient temperature	[°C]	-20...80
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 69K
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[ANN]	100
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	564.2
Materials		stainless steel (316L/1.4404); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)		Al2O3 (ceramics); FKM; stainless steel (316L/1.4404)
Min. pressure cycles		100 million
Process connection		threaded connection G 1/2 external thread
Restrictor element integrated		no (can be retrofitted)
Displays / operating elements		
Display	Display unit	2 x LED, green
	switching status	LED, yellow
	switch points	LED ring, red
	function display	alphanumeric display, red 4-digit
	measured values	analogue display, 0...350° rotatable, pointer not visible when unit disconnected
	measured values	alphanumeric display, red 4-digit
With scale		yes
Extended display range (max.)	160 bar	2322 psi
Remarks		
Remarks		switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity		1 pcs.
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		



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Connection



OUT1
OUT2

switching output
analogue output