



Pressure sensor with analogue display

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

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...10 MPa
Set point SP	0.4...160 bar	0.04...16 MPa
Reset point rP	0...159.6 bar	0...15.96 MPa
Analogue start point	0...135 bar	0...13.5 MPa
Analogue end point	25...160 bar	2.5...16 MPa
In steps of	0.2 bar	0.02 MPa

Accuracy / deviations

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



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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
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
CPA approval	accuracy class	Class 1.0
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	10 g (10...2000 Hz)
MTTF	[years]	97
UL approval	File number UL	E174189
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	567.9
Dimensions	[mm]	169 x 100 x 57
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	16 MPa
Remarks		
Remarks	switch point accuracy in the extended display range: 1.5 % of the span	
Pack quantity	1 pcs.	

PG2432



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Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection

