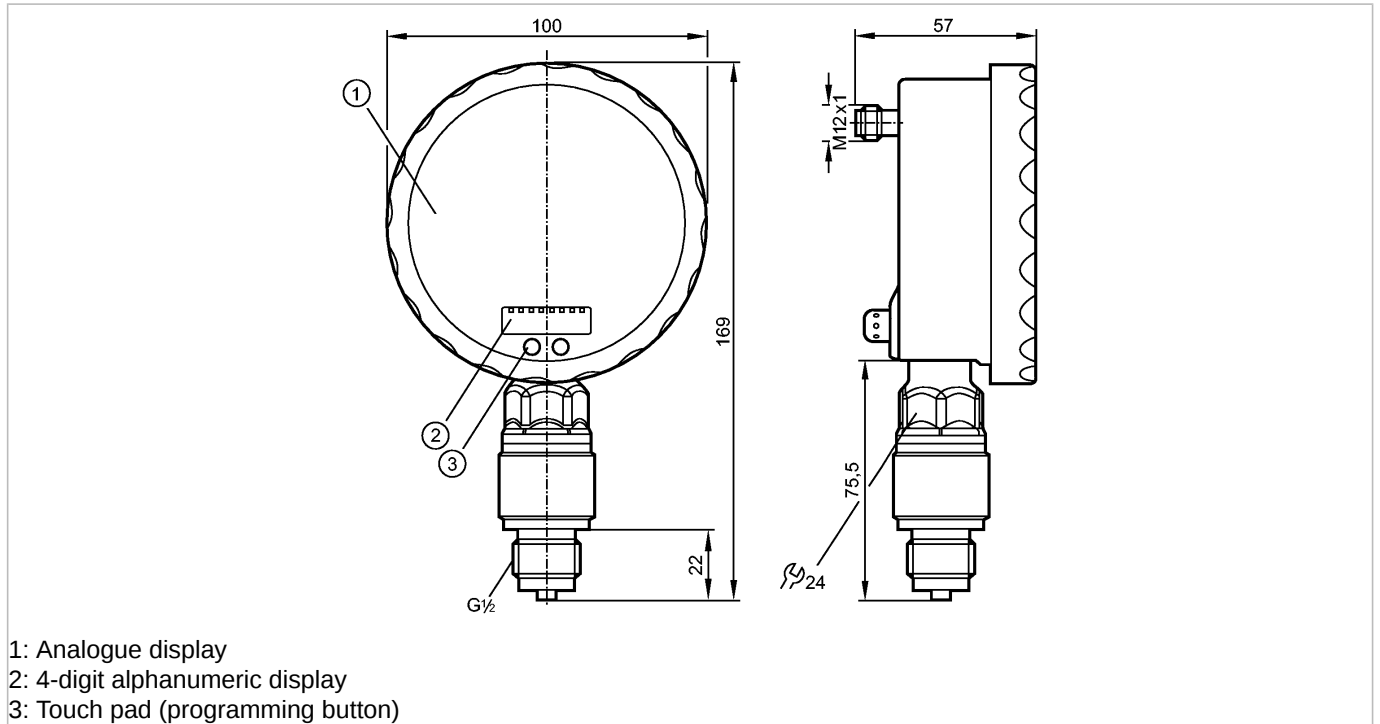


PG2452

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

Pressure sensors



- 1: Analogue display
- 2: 4-digit alphanumeric display
- 3: Touch pad (programming button)



Product characteristics

Electronic pressure sensor with analog display

Quick disconnect

Analog display 0...350° rotatable

Resolution 0.25%

Pointer not visible when unit disconnected

Process connection: G 1/2

2 Output

OUT1 = Switching output

OUT2 = Analog output

analog display, 4-digit alphanumeric display

Measuring range: 0...100 bar / 0...1449 psi

Application

Application	Type of pressure: relative pressure Liquids and gases Use in gases at pressures > 25 bar only after contacting the manufacturer ifm	
Pressure rating	300 bar	4350 psi
Bursting pressure min.	700 bar	9400 psi
Medium temperature [°C]	-25...80	

Electrical data

Electrical design	DC PNP/NPN	
Operating voltage [V]	18...32 DC	
Current consumption [mA]	70 (24 V)	
Insulation resistance [MΩ]	> 100 (500 V DC)	
Protection class	III	
Reverse polarity protection	yes	

Outputs

PG2452

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

Pressure sensors

Output	2 Output OUT1 = Switching output OUT2 = Analog output	
Output function	1 x normally open / closed programmable + 1 x analogue (4...20 / 20...4 mA, scalable)	
Current rating [mA]	250	
Voltage drop [V]	< 2	
Short-circuit protection	yes (non-latching)	
Overload protection	yes	
Switching frequency [Hz]	75	
Analog output	I: 4...20 mA (Ineg: 20...4 mA)	
Max. load [Ω]	I / Ineg: max. (U _b - 10 V) x 50	

Measuring / setting range

Measuring range	0...100 bar	0...1449 psi
Setting range		
Set point, SP	0.4...160.0 bar	6...2322 psi
Reset point, rP	0.0...159.6 bar	0...2316 psi
Analog start point, ASP	0.0...135.0 bar	0...1959 psi
Analog end point, AEP	25.0...160.0 bar	363...2322 psi
in steps of	0.2 bar	3 psi

Accuracy / deviations

Accuracy / deviations (in % of the span) Turn down 1:1

Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.25
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.1
Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	< ± 0.2
Greatest TEMPCO of the span	< ± 0.2

Reaction times

Power-on delay time [s]	6
Min. response time switching output [ms]	9
Damping for the switching output (dAP) [s]	0.01...30
Damping for the analog output (dAA) [s]	0.01...30
Step response time analogue output [ms]	28
Integrated watchdog	yes

Environment

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
-----	-------------------------------------------------------------------------

PG2452

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

Pressure sensors

	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]		100

Mechanical data

Process connection	G ½	
Materials (wetted parts)	ceramics (Al ₂ O ₃); FPM; stainless steel 316L / 1.4404	
Housing materials	stainless steel 316L / 1.4404; PA; FPM (Viton); PTFE; viewing glass: laminated safety glass 4 mm	
Switching cycles min.	100 million	
Weight [kg]	0.611	

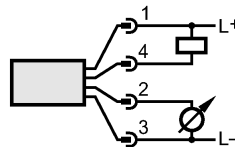
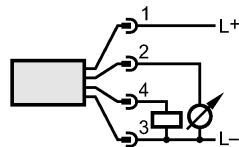
Displays / operating elements

Display	Display unit	2 x LED green
	Switching status	LED yellow
	Switch points	LED ring
	Function display	4-digit alphanumeric display
	Measured values	analog display, 4-digit alphanumeric display
Extended display range (max.)	160 bar	2322 psi

Electrical connection

Connection	M12 connector; gold-plated contacts	
------------	-------------------------------------	--

Wiring



Remarks

Remarks	<p>*) BFSL = Best Fit Straight Line switch point accuracy in the extended display range: 1.5 % of the span **) with temperature fluctuations < 10 K ***) in% of the span / 6 months</p>
---------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Pack quantity [piece]	1
-----------------------	---