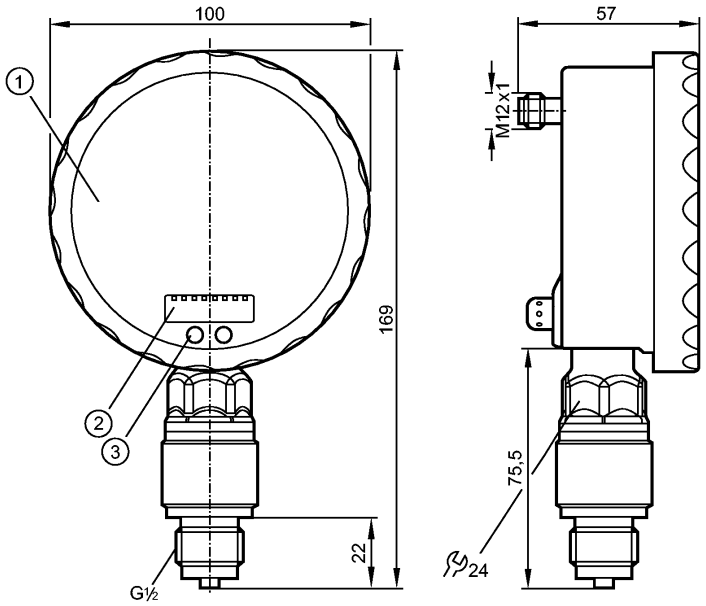
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PG2452

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

Pressure sensors



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

Made in Germany

CE cULus LISTED

Product characteristics

Electronic pressure sensor with analogue display
Connector
Analogue display 0...350° rotatable
Resolution 0.25%
Pointer not visible when unit disconnected
Process connection: G ½
2 outputs OUT1 = switching output OUT2 = analogue output
analogue 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

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PG2452

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

Pressure sensors

Output	2 outputs OUT1 = switching output OUT2 = analogue 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	pulsed	
Overload protection	yes	
Switching frequency [Hz]	75	
Analogue output	I: 4...20 mA (Ineg: 20...4 mA)	
Max. load [Ω]	I / Ineg: max. (Ub - 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
Analogue start point, ASP	0.0...135.0 bar	0...1959 psi
Analogue 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 analogue 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: EN 61000-4-3 HF radiated:	4 kV CD / 8 kV AD 10 V/m

		EN 61000-4-4 Burst: EN 61000-4-5 Surge: EN 61000-4-6 HF conducted:	2 kV 0.5/1 kV 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 (Al2 O3); 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

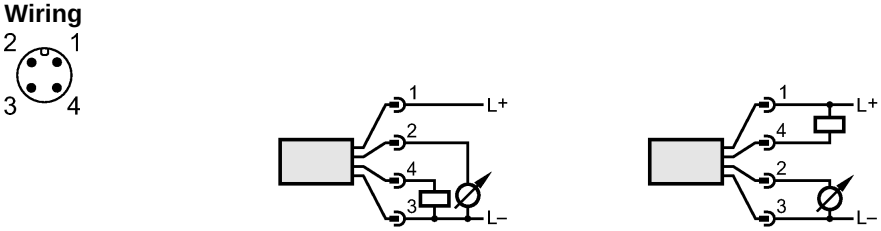
Displays / operating elements

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

Electrical connection

Connection	M12 connector; Gold-plated contacts

Wiring



Remarks

Remarks	*) 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
Pack quantity [piece]	1