

Pressure sensors

PG2794

Electronic pressure sensor
with analog display
PG27

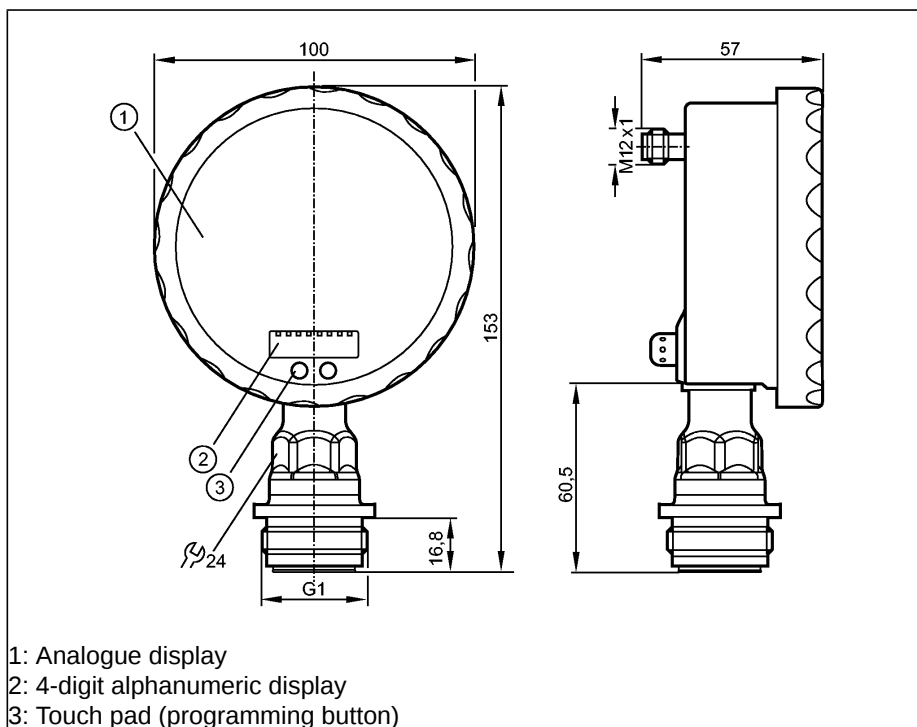
Quick disconnect
Process connection G1 / Aseptoflex
Vario

Suitable for all standard CIP and SIP
processes
Analog display 0...350° rotatable
Resolution 0.25%
Pointer not visible when unit
disconnected

2 Output
OUT1 = Switching output
OUT2 = Analog output

analog display, 4-digit alphanumeric
display

Measuring range
-1.00...10.00 bar
-14.5...145.0 PSI



EHEDG Certified

Made in Germany



Application

Electrical design

Output

Type of pressure: relative pressure
Hygienic systems, viscous media and liquids with suspended particles
Liquids and gases

DC PNP/NPN

1 x normally open / closed programmable + 1 x analogue (4...20 / 20...4 mA, scalable)

Operating voltage	[V]
Current rating	[mA]
Short-circuit protection	
Reverse polarity protection	
Overload protection	
Integrated watchdog	
Voltage drop	[V]
Current consumption	[mA]

18...32 DC
250
Yes (non-latching)
yes
yes
yes
< 2
< 70 (24 V)

Analog output
Load for analog output [Ω]
Pressure rating
Bursting pressure min.
Extended display range (max.)

I: 4...20 mA (Ineg: 20...4 mA)	
I / Ineg: max. (Ub - 10 V) x 50	
50 bar	725 PSI
150 bar	2175 PSI
16 bar	232 PSI

Setting range

Set point, SP
Reset point, rP
Analog start point, ASP
Analog end point, AEP
in steps of

-0.98...16.00 bar	-14.2...232.0 PSI
-1.00...15.98 bar	-14.5...231.8 PSI
-1.00...13.50 bar	-14.5...195.7 PSI
1.50...16.00 bar	21.8...232.0 PSI
0.01 bar	0.1 PSI

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Accuracy / deviations

(in % of the span)

Turn down 1:1

Switch point accuracy	< ± 0.2
Characteristics deviation *)	< ± 0.2
Linearity	< ± 0.15
Hysteresis	< ± 0.15
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	< ± 0.05
Greatest TEMPCO of the span	< ± 0.15
Power-on delay time [s]	6
Min. response time switching output [ms]	10
Damping for the switching output (dAP) [s]	0.01...30
Switching frequency [Hz]	50
Damping for the analog output (dAA) [s]	0.01...30
Step response time analogue output [ms]	25
Ambient temperature [°C]	-25...80
Medium temperature [°C]	-25...125 (145 max. 1h)
Storage temperature [°C]	-40...100
Protection	IP 67 / IP 69K, III
Insulation resistance [MΩ]	> 100 (500 V DC)
Shock resistance	DIN IEC 68-2-27:50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6:20 g (10...2000 Hz)
Switching cycles min.	100 million
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
MTTF [Years]	100
Housing materials	stainless steel 316L / 1.4404; PA; FPM (Viton); PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4
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
Connection	M12 connector; gold-plated contacts
Weight [kg]	0.556
Remarks	*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086) characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span **) with temperature fluctuations < 10 K ***) in % of the span per year

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Wiring

