

Pressure sensors

**PF2654**

Combined pressure sensor  
PF26

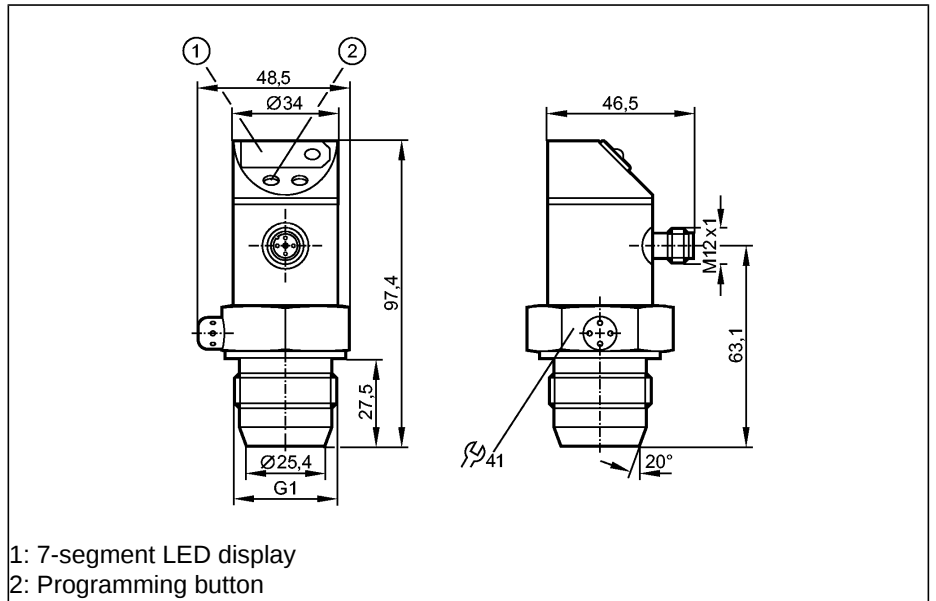
Connector  
Process connection G1 A

no dead space  
Freely rotatable housing 350°  
Zero and span adjustable  
Function programmable

2 outputs  
OUT1 = switching output  
OUT2 = switching output or analogue  
output

7-segment LED display

Measuring range  
-0.5...10 bar  
-7...145 PSI  
-50...1000 kPa



1: 7-segment LED display  
2: Programming button

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**  
**2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x analogue (4...20 mA / 0...10 V; scaleable 1:4)**

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

20...30 DC
2 x 250
pulsed
yes
yes
yes
< 2
< 60

Analogue output	4...20 mA / 0...10 V
Load for analogue output [Ω]	4...20 mA: max. (U <sub>b</sub> - 10 V) x 50 / 0...10 V: min. 2000
Pressure rating	50 bar
Bursting pressure min.	150 bar

4...20 mA / 0...10 V		
4...20 mA: max. (U <sub>b</sub> - 10 V) x 50 / 0...10 V: min. 2000		
50 bar	725 PSI	5000 kPa
150 bar	2175 PSI	15000 kPa

<b>Setting range</b>			
Set point, SP	-0.45...9.99 bar	-7 ...145 PSI	-45...999 kPa
Reset point, rP	-0.50...9.94 bar	-7 ...144 PSI	-50...994 kPa
Analogue start point, ASP	-0.50...7.49 bar	-7 ...109 PSI	-50...749 kPa
Analogue end point, AEP	2.00...9.99 bar	29 ...145 PSI	200...999 kPa
in steps of	0.01 bar	1 PSI	1 kPa

SP1 = 2.50 bar; rP1 = 2.30 bar	ASP = 0.00 bar; AEP = 9.99 bar
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Factory setting  
Programming options

hysteresis / window function; N.O. / N.C; output polarity; current / voltage outputs; damping; calibration of displayed values; display can be rotated / deactivated; display unit

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

**PF2654**

Characteristics deviation *)	< ± 0.6
Linearity	< ± 0.5
Hysteresis	< ± 0.1
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.1
Temperature coefficients (TEMPCO) in the temperature range 0...80° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	< ± 0.1
Greatest TEMPCO of the span	< ± 0.2

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Power-on delay time [s]	0.2
Min. response time switching outputs [ms]	3
Damping for the switching output (dAP) [ms]	0; 10; 20;...100; 200;...4000
Switching frequency [Hz]	≤ 170
Response time analogue output [ms]	3
Damping for the analogue output (dAA) [ms]	0; 100; 500; 2000
Display unit	bar, PSI, kPa
Ambient temperature [°C]	-25...80
Medium temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67, 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 61000-4-6 HF conducted: 10 V
MTTF [Years]	170
Housing materials	stainless steel 316L / 1.4404; PBT (Pocan); PC (Makrolon); PEI; EPDM/X (Santoprene); FPM (Viton)
Materials (wetted parts)	ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4
Display	Switching status 2 x LED red Function display 7-segment LED display Measured values 7-segment LED display
Connection	M12 connector; gold-plated contacts
Weight [kg]	0.378
Remarks	*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086) **) with temperature fluctuations < 10 K ***) in % of the span per year The 3A authorisation is only valid if adapters with 3A authorisation are used for installation.

**Wiring**

Programming of the output function (OUT1 / OUT2):

- Hno = hysteresis / normally open
- Hnc = hysteresis / normally closed
- Fno = window function / normally open
- Fnc = window function / normally closed

Complementary outputs:  
output 1: = Hno, output 2: = Hnc  
(with the same SP / rP)

Programming of the analogue output (OUT2):

- I = current output (4...20 mA)
- U = voltage output (0...10 V)

