

Pressure sensors

PF2656

Combined pressure sensor
PF26

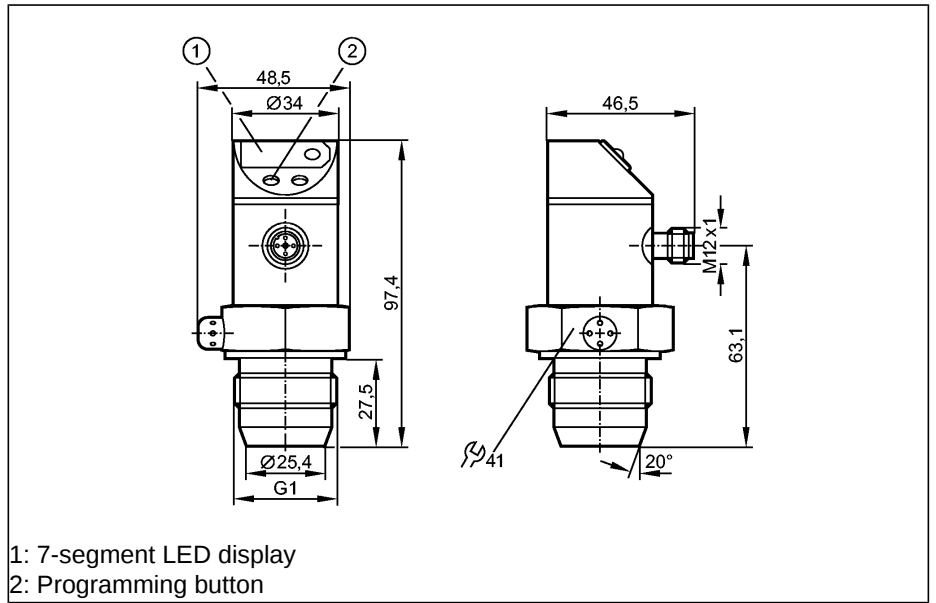
Plug and socket
Process connection G1 A

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
-0.13...2.50 bar
-1.8...36.3 PSI
-13...250 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	
Load for analogue output [ohms]	
Pressure rating	
Bursting pressure min.	

4...20 mA / 0...10 V		
4...20 mA: max. (U _b - 10 V) x 50 / 0...10 V: min. 2000		
20 bar	290 PSI	2000 kPa
50 bar	725 PSI	5000 kPa

Setting range			
Set point, SP	-0.11...2.50 bar	-1.6...36.3 PSI	-11...250 kPa
Reset point, rP	-0.12... 2.49 bar	-1.7...36.2 PSI	-12...249 kPa
Analogue start point, ASP	-0.13...1.88 bar	-1.8...27.2 PSI	-13...188 kPa
Analogue end point, AEP	0.50...2.50 bar	7.3...36.3 PSI	50...250 kPa
in steps of	0.01 bar	0.1 PSI	1 kPa

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	
Characteristics deviation *)	< ± 0.6
Linearity	< ± 0.5

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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
Housing materials	stainless steel 316L / 1.4404; PBT (Pocan); PC (Makrolon); PEI; EPDM/X (Santoprene); FPM (Viton)
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); PTFE
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]	0.362
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)

