OEM pressure sensor for industrial applications

Model P3410

Description

The pressure sensor P3410 has been developed for a wide variety of industrial applications. This pressure sensor is ideally suited to OEM applications, minimum batch size therefore is 50 units.

The pressure sensor can be used with several process connectors. Both the output signal and the electrical connection are available in various options.

Because of the compact design this pressure sensor is predestined for applications with limited space.

It goes without saying that the P3410 can be delivered with customer-specific labeling, e.g. with own company logo and model designation.

Special features

- O RoHS conform
- O Wetted parts in stainless steal
- O For dynamic and static load measurementes
- O No internal sealing elements
- O High alternating load resistance
- O Many different process connections available

Measuring ranges

Ranges from 0…6 bar up to 0…600 bar

Compound -1…5 bar up to -1…59 bar

Applications

Hydraulics and pneumatics

Pumps

Building services

Machine building

Compressors

Baureihe: P3410

Technical data

Model	**P3410**	
Pressure type	Negative or positive pressure	
Ranges	0...6 bar; 0…10 bar; 0...16 bar; 0...25 bar; 0...40 bar; 0...60 bar; 0…100 bar; 0…160 bar; 0...250 bar; 0…400 bar; 0…600 bar -1..5 bar; -1..9 bar; -1..15 bar; -1..24 bar; -1..39 bar; -1..59 bar 0...100 psi; 0...160 psi; 0...200 psi; 0...250 psi; 0...300 psi; 0...400 psi; 0...500 psi; 0...600 psi; 0...750 psi; 0...800 psi; 0...1000 psi; 0...1500 psi; 0...2000 psi; 0...3000 psi; 0...4000 psi; 0...5000 psi; 0...6000 psi; 0…7500 psi; 0...8000 psi -30 inHg...100 psi; -30 inHg...160 psi; -30 inHg...300 psi; -30 inHg…500 psi Other signals on request	
Overload limit	2-times (5-times on request)	
Output signal	4...20 mA 0...10 VDC; 0…5 VDC; 1...5 VDC; 0.5...4.5 VDC 0.5...4.5 VDC ratiometric	2-wire 3-wire 3-wire
Non-linearity	≤ ±0.5% of F.S. BFSL (IEC 61298-8); 0..6 bar, 0..10 bar, 0..100 psi: ≤ ±0.6% of F.S. BFSL	
Measuring deviation of the zero signal	≤ ±0.5% of span; 0..6 bar, 0..10 bar, 0..100 psi: ≤ ±0.7% of span	
Annual stability	≤ 0.3% of F.S. in reference conditions (IEC 61298-1)	
Temp. error	≤ 1.5% of F.S.	
Response time	≤ 2ms	
Wetted parts	Stainless steel	
Pressure connection	G 1/8 B, G 1/4 B, G1/4 female, G3/8 B (EN837) G1/4 A (DIN 3852-E); 1/8 NPT; 1/4 NPT; 1/4 NPT female 7/16-20 UNF; 9/16-18 UNF Other connections on request	
Electrical connection	Plug DIN 175301-803 form A or C (IP 65) [1)] Round connector M12x1 (4-polig) (IP 67) [1)] Cable outlet with 2 m shielded or unshielded (IP 67) Other connections on request	
Power supply / load	Power supply	max. load R_A
4...20 mA	8...30 VDC	$R_A \leq (U_B - 7V) / 0.02$ A
0…5V; 1…5V, 0.5…4.5V	8…30 VDC	$R_A > U_{max} / 1mA$
0...10 V	14...30 VDC	$R_A > U_{max} / 1mA$
0.5...4.5 V ratiometric	5 ± 0.5 VDC	$R_A > 4.5$ kOhm
CE-conformity EMV Pressure equipment directive (PED)	 2004/108/EG emitted interference (Group 1, class B) und interference immunity (EN61326) 97/23/EG	
Electrical protection typs Short-circuit Reverse polarity overload	 S+ to 0V UB+ to 0V 36 VDC	
Temp. range Storage Ambient	 -30..+100°C -30..+100°C	
Weight	approx. 80 g	

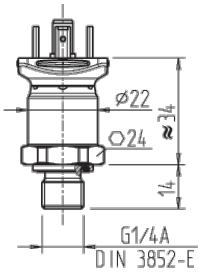
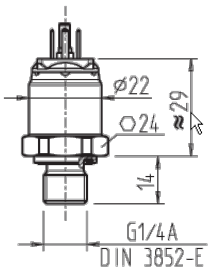
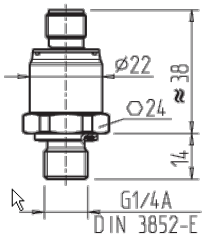
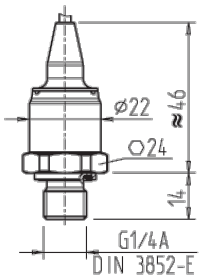
1) The named protection type applys only together with counterpart (same protection rating) when plugged
2) For a 5- overload pressure safety following restrictions

Model	P3410 – 5x Overload safety
Measuring range	0...6 bar; 0…10 bar; 0...16 bar; 0...25 bar; 0...40 bar; More on request
Overload safty	5-times
Output signal	4...20 mA 2-wire 1...5 VDC; 0,5...4,5 VDC 3-wire 0.5...4.5 VDC ratio 3-wire
Non-linearity	≤ ±0.5% of F.S. BFSL nach IEC 61298-2; for 0..6 bar, 0..10 bar, 0..100 psi: ≤ ±0.6% of F.S. BFSL
Measuring deviation of the zero signal	≤ ±1 % F.S
Annual stability	≤ 0,3% of FS in reference conditions (IEC 61298-1)
Temperature error	Typ.: 0.3% F.S / 10 K Max.: 0.6% F.S / 10 K
Electrical connection	Circular connector M12x1 (4-pin) (IP 67) [1)] Cable output 2m, not shieldet (IP 67) Kabelausgang 2m, shieldet (IP 67) More on request

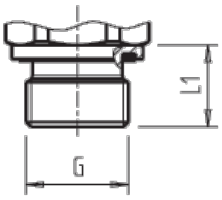
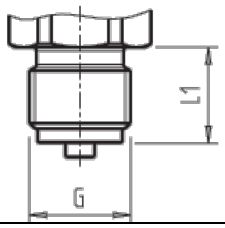
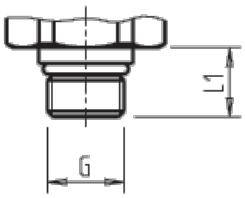
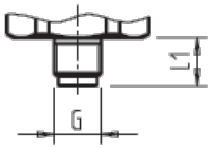
For applications with water as a medium we recommend a 5-fold overpressure safety for protection against water hammer effects, and a condensation-tight case.

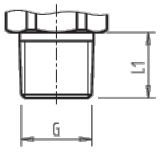
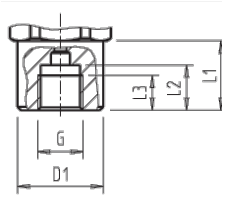
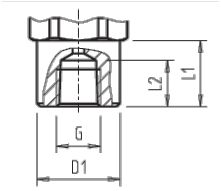
Dimensions (mm)

Case

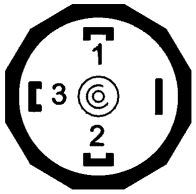
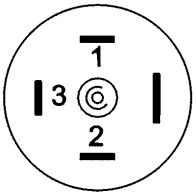
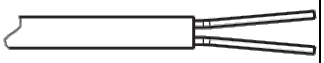
Plug according to DIN EN 175301-803 form A	Plug according to DIN EN 175301-803 form C	Circular plug-in connector M12x1	Cable outlet
			

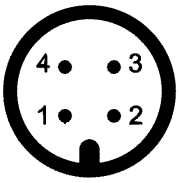
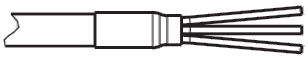
Pressure connection

G 1/4 A DIN 3852-E	G 1/4 B EN 837 G 3/8 B EN 837	9/16-18 UNF 7/16-20 UNF	G 1/8 A EN 837
			
G1/4 A DIN 3852-E: L1 = 14 mm	G 1/4 B EN 837: L1 = 13 mm G 3/8 B EN 837: L1 = 16 mm	9/16-18 UNF L1 = 13 mm 7/16-20 UNF L1 = 12 mm	G 1/8 B EN 837: L1 = 10 mm

1/4 NPT	G 1/4 female	1/4 NPT female
 G		
1/4 NPT: L1 = 13 mm	G 1/4 female: L1 = 20 mm L2 = 15 mm L3 = 12 mm D1= 25 mm	1/4 NPT female: L1 = 20 mm L2 = 14 mm D1 = 25 mm

Electrical connections

Plug according to DIN EN 175301-803 form A	Plug according to DIN EN 175301-803 form C	Cable output, unshielded
		

Circular connector M12x1	Cable output, shielded
	

Connection table for DIN plugs or cable outputs

	Output Signal mA (2 - wire)				Output Signla VDC (3 - wire)			
	Plug form A, C	**M12x1**	**Cable output unshielded**	**Cable output shielded**	**Plug form A, C**	**M12x1**	**Cable output unshielded**	**Cable output shielded**
Power: UB+	1	1	Brown	Brown	1	1	Brown	brown
Power: 0V	2	3	Green	Blue	2	3	Green	Blue
Signal: S+	-	-	-	-	3	4	White	black

Order details

1. Model Type
2. Measuring range
3. Output signal
4. Options