Pressure Transducer with local indication all stainless steel

according to DIN 16 006
nominal size 100

with or without filling

Description

Standard system pressure gauges and the safety version to EN 837-1 / S3 meet the special requirements of the chemical and related industries with regard to safety, reliability, corrosion resistance and robustness.

The special feature of tranducers with local display is an analog display of the measured value on side and the output of a corresponding electrical standard signal (mostly 4...20mA) for transmitting the measured value. A pressure related mechanical measuring element (diaphragm or Bourdon tube) provides the local display and simultaneously controls a magnetic-field dependent sensor. The integrated electronics supply the standardized signal.

Gauges with liquid filling provide a practically vibration-free display if pressure surges or mechanical vibrations arise and have a particularly long service life.

For more difficult measuring tasks (e.g. hydro-static column), two potentiometers enable the zero point and measuring range to be set.

Pressure sensores Industrial Heavy Duty meet the electromagnetic compatibility (EMC) require-ments of EN 61326.

Features

- O Local display
- O Display accuracy:
  up to 0...0.4 bar, class 1.6
  from 0...0.6 bar, class 1.0
- O Safety version to EN 837-1 / S3
- O Corrosion resistant stainless steel design
- O Standard signals: 4...20mA, 2-wire;
  0...20 mA, 3-wire
- O Liquid filling of case to provide damping of measuring system.

Measuring ranges

Gauge pressure

negative	- 1 ... 0 bar	to	-0.06 ... 0 bar
positive	0 ...0.06 bar	to	0 ... 1000 bar

Applications

Chemical and petrochemical industries,
Pharmaceutical and cosmetics industries,
Food and beverage industries.

Model: P2850, P2851, P2860, P2861

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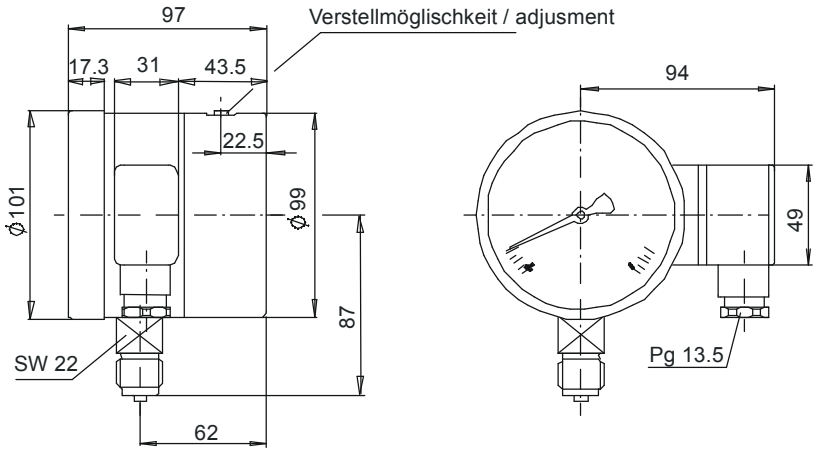
Technical data

Models	P2850	P2851	P2860	P2861	Options
Nominal size	100				
Liquid filling	none	siliconoil	none	siliconoil	
Pressure type	negative or positive gauge pressure				negative and positive gauge pressure
Output signal	0 ... 20 mA 3-wire system		4 ... 20 mA 2-wire system		intrinsically safe version on request
Accuracy – display – output signal [1])	 ≤ 0...0.4 bar ≥ 0...0.6 bar ≤ 0...0.4 bar ≥ 0...0.6 bar	 class 1.6 class 1.0 ± 1.0 % of F.S. ± 0.8 % of F.S.			
Ranges accord. to EN [2])	0 ... 0.06 bar to 0 ... 1000 bar				other ranges on request
Overload limit – constant load – alternating load – short time load	 1.0-fold 0.9-fold 1.3-fold (< 0.6 bar 10-fold)				
Case	stainless steel 1.4301				
Pressure connection	G½ B to EN 837-1 /7.3				G¼ B; ½ NPT; ¼ NPT
Wetted parts	stainless steel 1.4571				
Electrical connection	junction box with PG 13.5				
Power supply – influence of power supply – permissible residual ripple	10 ... 30 VDC ≤ 0.1% of F.S / 10 V ≤ 10% ss				
Power consuption	current signal +15 mA		current signal		
Load	RA [Ω] ≤ (UB [V] - 10 V) / 0.02 A				
Temp. compens. range	-25 ... 60 °C				
Temperature influence	± 0.3 % / 10 K on zero and span				
Adjustiblity – electrical – mechanical	 up to ± 5 % of F.S. (zero and span) approx. 5 % of F.S. (only for ranges ≤ 0...400 mbar)				
Response time	approx. 50 ms				
Protection types [3])	IP 54	IP 65	IP 54	IP 65	
Emission [4])	to EN 61326				
Interference [4])	to EN 61326				
Electr. protection types	polarity and overvoltage protection				
Temperature ranges – medium – ambient	 - 25 ... 100°C - 25 ... 60°C				
Weight	0.8 kg	1.5 kg	0.8 kg	1.5 kg	

of F.S. = of full scale value

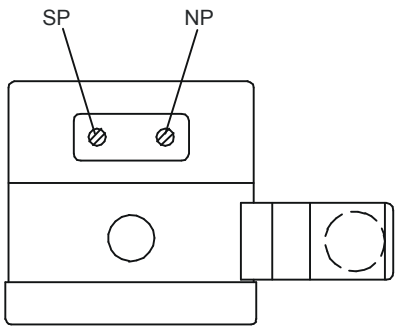
1) Terminal point adjustment according to DIN 16 086, incl. linearity and hysteresis
2) Liquid filling from 0 ... 0.6 bar
3) According to EN 60529 / IEC 529
4) Declaration of conformity on request

Dimensions (mm)



Position of potentiometers

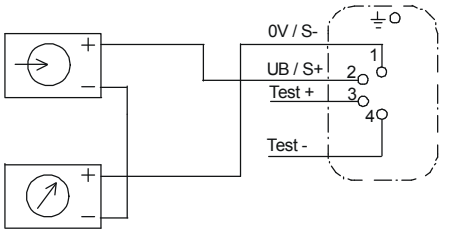
The potentiometer can be reached by unscrewing the screws of the case.



S potentiometer for span adjustment
Z potentiometer for zero point adjustment

Electrical connection

two-wire system



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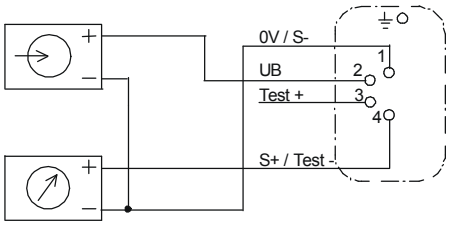
Three-wire system



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Order details

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