

# PRESSURE GAUGE IN SAFETY VERSION WITH CURRENT OUTPUT



according to DIN 16 006  
Diameter 100

with or without filling

**Signal:** 4...20 mA; 2-wire  
0...20 mA; 3-wire  
0... 5 VDC; 3-wire  
0...10 VDC; 3-wire



## 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 transducers 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 vibrationfree display if pressure surges or mechanical vibrations arise and have a particularly long service life. Pressure sensors Industrial Heavy Duty meet the electromagnetic compatibility (EMC) requirements of EN 61326.

## Features

- Safety version EN 837-1/S3
- Corrosion resistant stainless steel design
- Standard signals: 4...20 mA, 2-wire;  
0...20 mA, 3-wire
- Liquid filling of case to provide damping of measuring system

## Measuring ranges

0...2,5 bar up to 0...400 bar

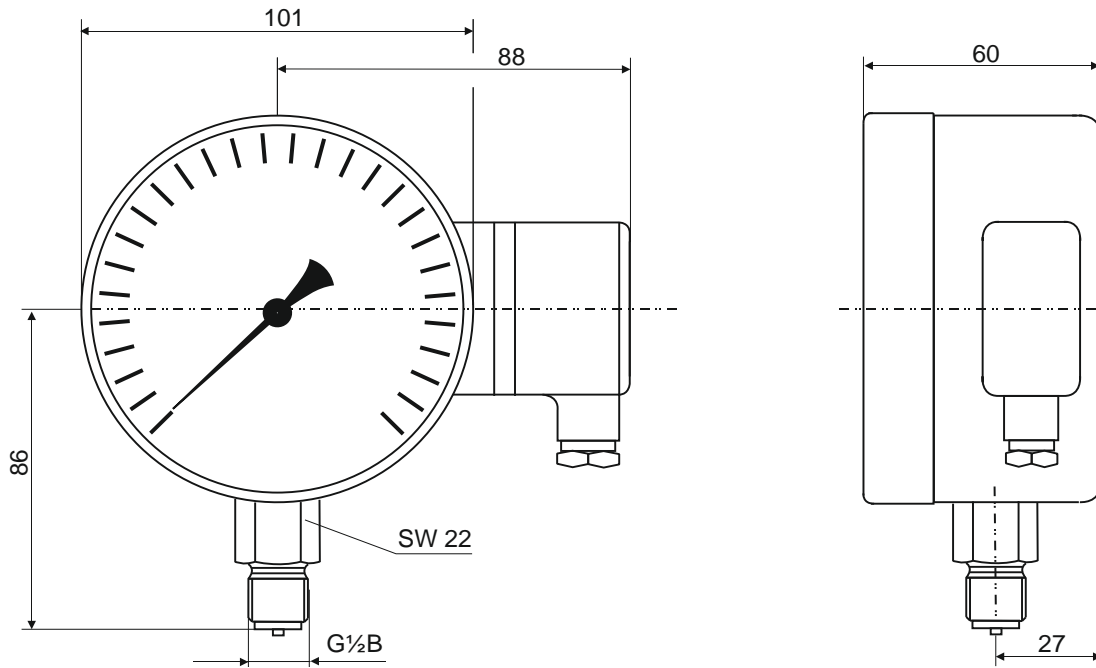
## Applications

Chemical and petrochemical industries,  
pharmaceutical and cosmetics industries,  
food and beverage industries

Type	6850	6851	Options
Diameter	100		
Liquid filling	none	Silicone oil	
Pressure type	negative or positive overpressure		negative and positive overpressure
Output signal	4...20 mA 2-wire system		Ex- version; 0...20 mA on request
Accuracy class	cl. 1,0		
Ranges	0...2,5 bar up to 0...400 bar; -1/+3; -1/+5; -1/+9; -1/+15; -1/+24 bar		others on request
Application	Constant load: up to end of scale value Alternating load: up to 0,9-fold end of scale value Short time: 1,3-fold overload capacity		
Case / ring	Stainless steel 1.4301 with blow-out back solid front bayonet ring in stainless steel		
Window	laminated safety glass		
Pressure connection	G 1/2 B according to EN 837-1/S3		G1/4B, 1/2NPT, 1/4NPT
Wetted parts	Stainless steel 1.4571, O-ring Viton (FKM)		
Electrical connection	Cable connector PG 13,5		
Power supply	12...30 VDC (14...30 VDC for output 0...10 V) influence of power supply: $\leq \pm 0,1\%$ v. EW. / 10 V permissible residual ripple : $\leq \pm 10\%$ ss		
Power consumption	Output 4...20 mA: signal power at power output 8 mA		
Load	$R_{max} = ((UB-UB_{min})/0,02) \Omega$ ; power $R_{min} = 10K\Omega$		
Temp. compens.range	-28 ... 82°C		
Temperature drift	$\pm 0,3\%/10$ K, on zero and span 0...50°C		
Adjustability	electrical: up to $\pm 5\%$ v. EW. (zero point and span) mechanical: ca. 5% v. EW: (only for ranges $\leq 0,4$ bar		
Response time	< 1 ms (within 10% up to 90 % full scale value)		
Protection	IP54	IP65	
Emission	according to EN 61326		
Interference	according to EN 61326		
Electr.protect.type	Polarity and overvoltage protection		
Medium temperature	-20 ... 80 °C		
Ambient temperature	-25 ... 60 °C		
Approx.weight	0,8 kg	1,5 kg	

**Dimensioned drawing**

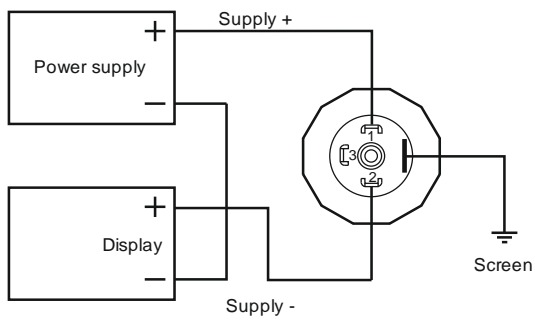
Dimensions in mm



**Electrical connection**

2-wire-system

4...20 mA



3-wire-system

0...20 mA  
0...0/5V

