All stainless steel pressure gauges with Bourdon tube, with or without glycerine filling

Accuracy class 1.0

Nominal sizes ND 160

Connection position bottom, radial or back, eccentric

Description

The all stainless steel pressure gauges are ideal for the hard conditions and the resulting high demands on pressure measurement in production facilities in chemical industry and other comparable branches. Resistance to aggressive media and environments is achieved by using high-grade materials such as stainless steel both for the measuring system and the case.

The glycerine filling provides wear-protection for the measuring system through damping, should pulsating pressures and mechanical vibrations occur. The measuring system is of accuracy class 1.0, has overrange protection amounting to 1.3 times the max. rating and can be loaded up to the full scale value.

Pressure gauges with glycerine filling are equipped with a compensation diaphragm. This diaphragm avoids a pressure rise in the case that is due to temperature bound volume expansion of the liquid filling, thus avoiding indicated errors.

A whole series of installation possibilities enables adaptation to special requirements.

Features

- o Stainless steel case and measuring system
- o Protection to IP 54 resp. IP 65 (with filling)
- o Accuracy class 1.0
- o For use up to full scale value
- o Overload capacity 1.3 times max. rating
- o Case with or without glycerine filling

Measuring ranges

0 ... 0.6 bar to 0 ... 1600 bar

Applications

Chemical and petrochemical industry;
Plastics and paper industry;
Food and beverage industry;
Machines and apparatus construction.

Models: P2314, P2316, P2317, P2318

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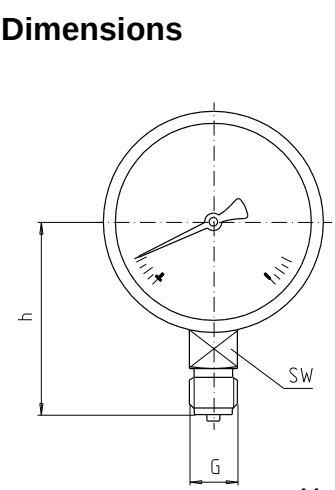
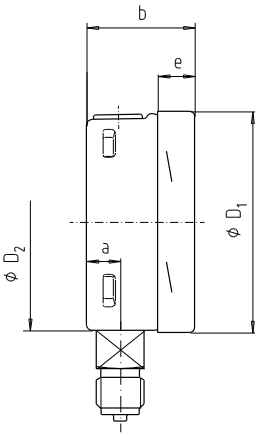
Technical data

Model	P2314	P2316	P2317	P2318	Options
Nominal size	160				
Symbol					
Accuracy class	1.0 to EN 837-1				
Range	0 ... 0.6 bar to 0 ... 1600 bar negative or positive / negative and positive gauge pressure				2100 bar (without filling)
Application DIN 837-1 [1)]	Constant load: up to full scale value Alternating load: up to 0.9 x full scale value				
Overpressure Protection	1.3 x short-time				
Case	Stainless steel 1.4301 plain Pressure relief opening (closed with rubber disc)				Stainless steel, polished
Bezel	Stainless steel 1.4301 plain, bayonet ring				polished
Mounting	Without flange				Front flange stainless steel (ss)1.4301 polished, Rear flange: ss 1.4301
Window	Laminated safety glass				
Dial	Aluminium, white, scale and imprint black				Dual scale
Pointer	Aluminium, black				Pointer with micro-adjustment, marker pointer, max. indicating pointer
Movement	Stainless steel 1.4301 / 1.4305				plastic teeth and bearing, oil-damped shaft (Manocont)
Measuring element	Stainless steel 316 L Bourdon tube ≤ 60 bar, helical tube ≥ 100 bar				*Monel (model P2314, P2316)*
Connection - position - thread	Stainless steel 316 L bottom | back, eccentric G 1/2 B				Other threads on request
Liquid filling	none	glycerine	none	glycerine	glycerine / water mixture
Protection to EN 60 529 / IEC 529	IP 54	IP 65	IP 54	IP 65	
Temperatures - Medium	Tmin. - 20°C, Tmax. +200°C	Tmin. - 20°C, Tmax. +100°C	Tmin. - 20°C, Tmax. +200°C	Tmin. - 20°C, Tmax. +100°C	
- Ambient	Tmin. - 40°C, Tmax. +60°C	Tmin. - 20°C, Tmax. +60°C	Tmin. - 40°C, Tmax. +60°C	Tmin. - 20°C, Tmax. +60°C	
Temperature drift	0.4%/10K if deviation from normal temperature 20°C				
Throttle	without				Stainless steel 1.4571 / ∅ 0.4; ∅ 0.8
Weight approx.	0.930 kg	2.100 kg	1.100 kg	2.100 kg	

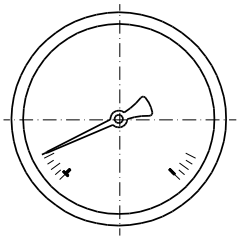
[1)] Measuring range: >1000 bar, constant load 3/4 full scale value; alternating load 2/3 full scale value; overload capacity = full scale value

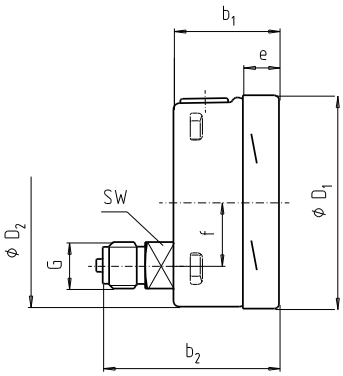
Dimensions





Model P2314; P2316





Model P2317; P2318

Model	Dimensions in mm										
	a	b	b_1	b_2	D_1	D_2	e	f	G	h ±1	SW
P2314, P2316 P2317, P2318	15.5	49.5[1)]	49.5[1)]	83[1)]	161	159	17.5	50	G1/2B	118	22

[1)] By measuring range: ≥100 bar, the dimension will be increased about 17 mm

Modifications reserved