All stainless steel safety pressure gauges for specially safety according to EN 837-1/S3 with or without liquid filling
New: as multifunctional pressure instrument

Nominal sizes ND 63

Connection position bottom

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 1.6, has overrange protection amounting to 1.3 times the max. rating and can be loaded up to the full scale value.

The safety execution of the pressure gauges comprises a burst-proof solid front between bourdon tube and window, a laminated safety glass as well as a blow-out back (according to EN 837-1/S3).

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.

If an output signal is expected by the measuring point, **„the multi-functional instrument“ P2107 ND 63** can be used. It connects the pressure measurement without auxiliary energy with the possibility of a sensor signal for the remote transmission of the upcoming pressure values.
This instrument is particularly suitable for pressure control rather regulation.

Features

- o Corrosion resistant stainless steel measuring system
- o Resistant to chemicals
- o Rugged construction
- o Fulfills highest safety requirements to EN 837-1/S3
- o Solid front between measuring system and window
- o Vibration-free display and long service-life through liquid filling

Measuring ranges

0 ... 1 bar to 0 ... 1000 bar

Applications

Processing technology in chemical industry, pharmacy, machine and apparatus construction,
pump control,
pump regulation.

Models: P2105, P2106, P2107

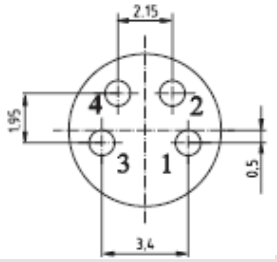
Technical data

Models	P2105	P2106	P2107	Option
Nominal size	63			
Symbol				
Accuracy class	1,6 acc. to EN 837-1			
Range	0 ... 1 bar to 0 ... 1000 bar negative or positive or negative and positive gauge pressure			Other ranges on request
Application	Constant load : 3/4 x full scale value Alternating load: 2/3 x full scale value short-time: full scale value			
Case	Stainless steel 1.4301 with blow-out back and solid front			
Bezel	Stainless steel 1.4301 bayonet ring			Front mounting bracket
Window	Laminated safety glass		Polycarbonat	*P2107:* Laminated safety glass
Dial	Aluminium, white, scale and imprint black with stop pin			
pointer	Al., black			
Movement	Stainless Steel		Brass	
Measuring element	Stainless Steel 316 L Bourdon tube up to 60 bar, above 100 bar helical tube			1.4571 on request
Connection - position - thread	Stainless Steel 316 L radial bottom G 1/4 B			1.4571 on request Other threads on request
Temperature - medium - ambient	Tmin. -20°C…Tmax. 200°C Tmin. -40°C…Tmax. 60°C	Tmin. -20°C…Tmax. 100°C Tmin. -20°C…Tmax. 60°C	Tmin. -20°C…Tmax. 200°C Tmin. -40°C…Tmax. 60°C	
Temperature drift	0.4%/10K if deviation from normal temperature 20°C			
Liquid filling	without	Glyzerin	without	P2107: Silikon M50 (only in access with connector)
Protection	IP 65 to EN 60 529 / IEC 529		IP 54 to EN 60529 / ICE 529 filled: IP65	
Throttle	without		For dynamic pressure	∅ 0,4; ∅ 0,8
CE-Conformity	-----		Pressure Equipment Directive:: 97/23/EG	
Weight	0.200 kg	0.270 kg	0.250 kg	
Electrical connection	-----		Free cable (2meters or 5 meters length)	Model P2107: Miniatur plug connector M8 x 1.4-pin (cable with plug, length 5m)
Power supply – Supply voltage effect – Permissible residual ripple	-----		12 < UB ≤ 30 < 0.1% FS/10 V < 10 % ss	
Output signal	-----		4 … 20 mA, 2 – wire system	
Permissible max. load RA	-----		RA ≤ (UB - 12 V)/0.02 A with RA in Ohm and UB in Volt, however max. 600 Ω	
Effect loads	-----		≤ 0.1 % FS	
Accuracy - Long-term stability of electronics - Electr. output signal	----- -----		< 0.5 % FS/a ≤ 1.6 % of measuring span	
Linearity	-----		≤ 1.6 % of span (limit point calibration) [1)]	
EMC-directive	-----		2007/108/EG Interference emission (Limit Class B) and immunity to EN 61 326-1	

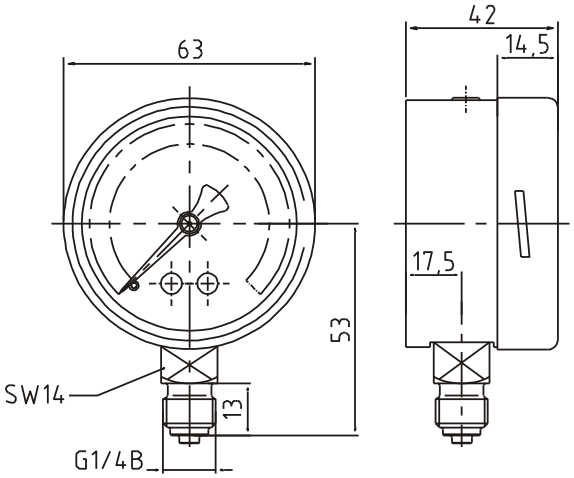
[1)] For technical reasons the measured value up to the first division line of the scale can lie outside of the class accuracy

Connection details

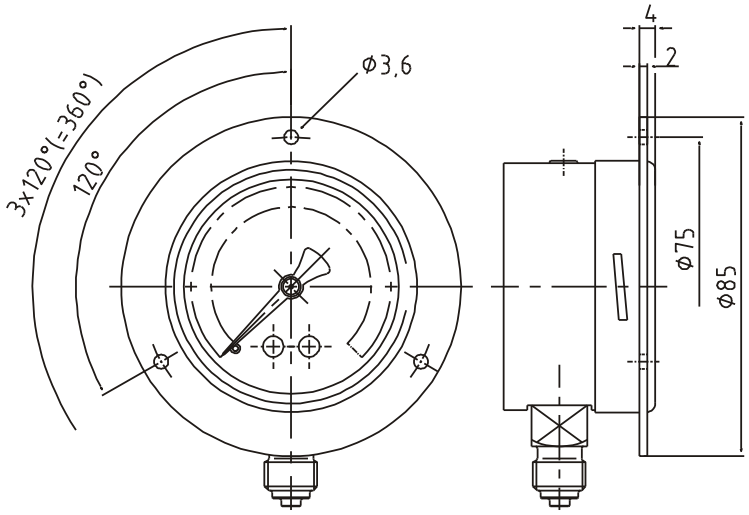
cable	Plug connector	Meaning
red	Pin 1	UB+/Sig +
black	Pin 4	0 V/Sig -
brown	Pin 2	n.c.
- - -	Pin 3	n.c



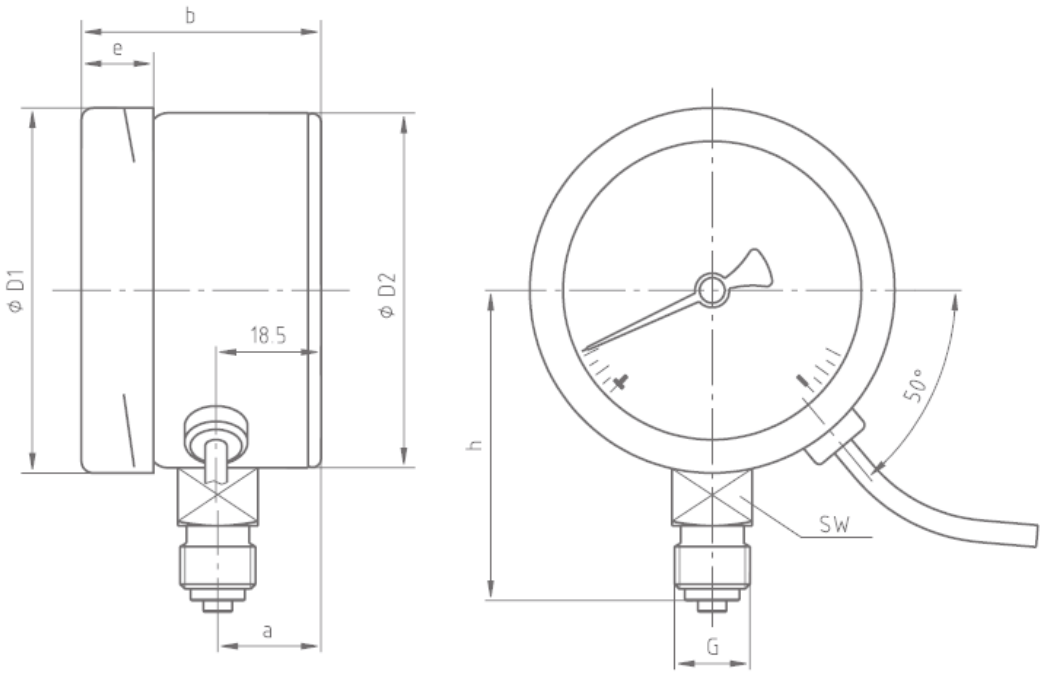
Dimensions



Model: **P2105 / P2106**



Model: **P2105 / P2106** with front flange



Model	Dimensions in mm								weight in kg
	a	b	D1	D2	e	G	H±1	SW	
P2107	18	42	63	62	14.5	G1/4 B	54	14	0.25

Modifications reserved