

Bourdon Tube Pressure Gauges

Stainless Steel Series with Liquid Filling • Model 233.50

Pressure Gauges

Approval German Lloyd



Service intended

All stainless steel pressure gauge for adverse service conditions where pulsation or vibration exists. Suitable for corrosive environments and gaseous or liquid media that will not obstruct the pressure system.

Design

EN 837-1

Nominal size

63, 100 and 160 mm

Accuracy class per EN 837-1 /6

63 mm: 1.6
100 and 160 mm: 1.0

Scale ranges per EN 837-1 /5

63 mm: 0 ... 1 to 0 ... 1000 bar
100 mm: 0 ... 0.6 to 0 ... 1000 bar
160 mm: 0 ... 0.6 to 0 ... 1600 bar

or other equivalent units of pressure or vacuum.

Working pressure

63 mm:	Steady:	3/4 of full scale value
	Fluctuating:	2/3 of full scale value
	Short time:	full scale value
100 and 160 mm:	Steady:	full scale value
	Fluctuating:	0.9 x full scale value
	Short time:	1.3 x full scale value

Operating temperature

Ambient: -20 ... +60 °C
Medium: +100 °C maximum

Temperature effect

When temperature of the pressure element deviates from reference temperature (+20 °C):
max. ±0.4%/10 K of true scale value

Ingress protection

IP 65 per EN 60 529 / IEC 529

Standard features

Pressure connection

Material: stainless steel 1.4571
Threaded entry (radial or back) per EN 873-1 /7.3
63 mm: G 1/4 B (male), 14 mm flats
100 and 160 mm: G 1/2 B (male), 22 mm flats

Pressure element

Material: stainless steel 1.4571
< 100 bar: C-type
≥ 100 bar: helical type

Movement

Stainless steel



Dial

White aluminium with black lettering, 63 mm with pointer stop pin.

Pointer

Black aluminium

Case

Natural finish stainless steel, with pressure relief in case top (63 mm) or in case back (100 and 160 mm). Ranges ≤ 10 bar with compensating valve to vent case.

Window

Laminated safety glass

Bezel ring

Cam ring (bayonet type), natural finish stainless steel

Liquid filling:

Glycerine 99.7 %

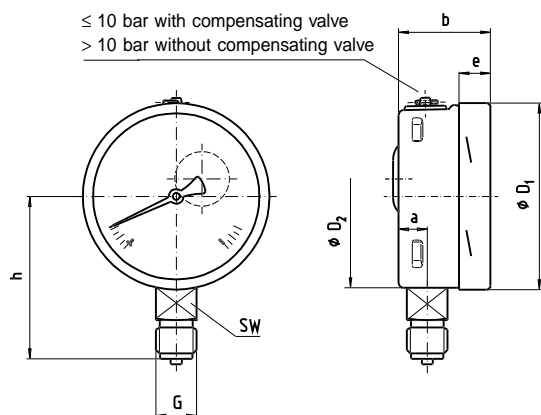
Optional extras

- Other pressure connection
- Monel pressure system (**model 263.50**)
- 63 and 100 mm: hermetically tight, internal pressure compensation (foil), IP 66
- 3-hole surface or panel mounting flange, stainless steel
- Triangular bezel, stainless steel, polished, with clamp
- Alarm contacts (see data sheet AE 08.01)
- Transmitter (**model 233.50** with mounted transmitter **model 89X.34**, see data sheet PM 02.05 and AE 08.02)

Dimensions

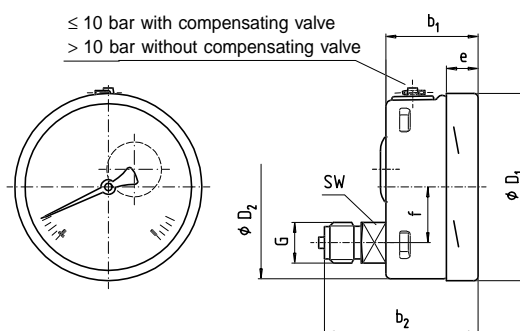
Standard version

100 mm, radial bottom pressure entry



1520 806.03

100 mm, lower back pressure entry



1520 814.03

Nominal size	Dimensions [mm]											Weight [kg]
	a	b	b ₁	b ₂	D ₁	D ₂	e	f	G	h ± 1	SW	
63	9.5	33	33	60	63	62	11.5	- ¹⁾	G ¼ B	54	14	0.20
100	15.5	49.5	49.5	83	101	99	17.5	30	G ½ B	87	22	0.90
160	15.5	49.5 ³⁾	49.5 ²⁾	83 ²⁾	161	159	17.5	50	G ½ B	118	22	2.00

Standard pressure entry with parallel thread and seating to EN 837-1 /7.3.

1) Centre back pressure entry

2) Plus 16 mm with pressure ranges ≥ 100 bar

3) Plus 16 mm with pressure range 1600 bar

Ordering information

State:

Pressure gauge model / Nominal size / Scale range / Size and location of connection / Optional extras required



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