

Bourdon Tube Pressure Gauges

Stainless Steel Case with Liquid Filling • Model 213.53

Pressure Gauges

Approval German Lloyd



Service intended

Robust pressure gauge with stainless steel case and liquid filling. Intended for adverse service conditions where pulsation or vibration exists. Suitable for gaseous or liquid media that will not obstruct the pressure system or attack copper alloy parts.

Design

EN 837-1

Nominal size

50, 63, 80 and 100 mm

Accuracy class per EN 837-1 /6

50 and 63 mm: 1.6

80 and 100 mm: 1.0

Scale ranges per EN 837-1 /5

50 mm: 0 ... 1 to 0 ... 600 bar

63, 80 and 100 mm: 0 ... 0.6 to 0 ... 1000 bar

or other equivalent units of pressure or vacuum.

Working pressure

50 and 63 mm: Steady: $\frac{3}{4}$ of full scale value

Fluctuating: $\frac{2}{3}$ of full scale value

Short time: full scale value

80 and 100 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: +60 °C maximum

Temperature effect

When temperature of the pressure element deviates from reference temperature (+20 °C):

max. $\pm 0.4\%/10$ K of the span.

Degree of protection

IP 65 per EN 60 529 / IEC 529

Standard features

Pressure connection

Material: Copper alloy

Threaded entry (radial or back) per EN 837-1 /7.3

50 and 63 mm: G $\frac{1}{4}$ B 14, mm flats

80 and 100 mm: G $\frac{1}{2}$ B 22, mm flats

Pressure element

50, 63 and 80 mm:

< 60 bar: Cu-alloy, C-type, soft soldered

≥ 60 bar: Cu-alloy, helical type, soft soldered

100 mm:

< 100 bar: Cu-alloy, C-type, soft soldered

≥ 100 bar: stainless steel 1.4571, helical type, brazed



Movement

Cu-alloy

80 mm: Cu-alloy, wear parts argentan

Dial

50 and 63 mm: white plastic, with pointer stop pin

80 and 100 mm: white aluminium

With black lettering

Pointer

50 and 63 mm: black plastic

80 and 100 mm: black aluminium

Case

Natural finish stainless steel

O-ring seal between case and entry stem

Pressure relief in case top

Ranges ≤ 16 bar with case venting provision

Window

clear plastic

Bezel ring

Triangular bezel, roll formed, glossy finish stainless steel

Liquid filling

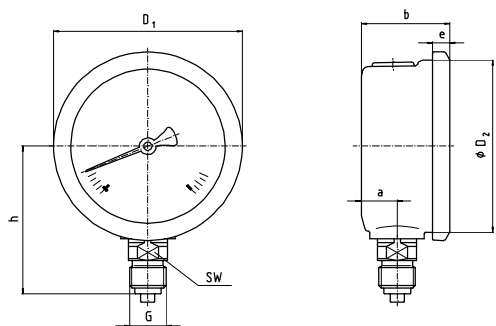
Glycerine 99.7 %

Optional extras

- Other pressure connections
- 50 and 63 mm: stainless steel pressure system (**model 233.53**)
- 63 and 100 mm: internal pressure compensation
- 100 mm: zero point adjustable in front
- Medium temperature to 100 °C with special soft solder
- 3-hole panel mounting flange, stainless steel (back entry only)
- 3-hole surface mounting flange, stainless steel
- With clamp (back entry only)

Dimensions
Standard version

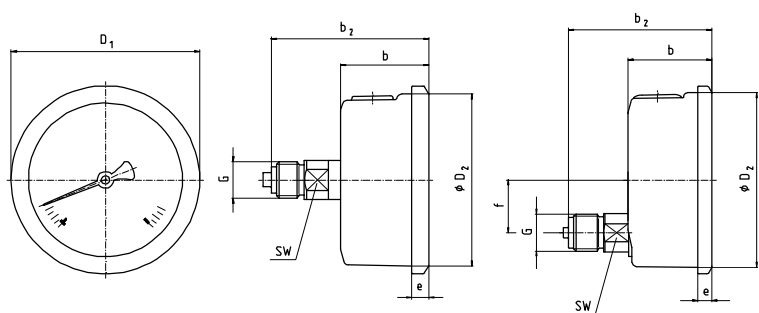
Radial bottom pressure connection



1224 557

50, 63 and 80 mm, centre back pressure connection

100 mm, lower back pressure connection



1224 549

NS	Dimensions [mm]										Weight [kg]
	a	b ₁ ± 0,5	b ₂ ± 1	D ¹	D ²	e	f	G	h ± 1	SW	
50	12	30	55	55	50	5,5	-	G ¼ B	48	14	0,15
63	13	32	56	68	62	6,5	-	G ¼ B	54	14	0,21
80	15,8	43,5	78	83,6	80	5	-	G ½ B	76	22	0,39
100	15,5	48	81,5	107	100	8	30	G ½ B	87	22	0,80

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

Ordering information

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

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.



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