

Bourdon tube pressure gauge
Model P.23, liquid filling, stainless steel case
P.231,P.232



**Mechanical
pressure measurement**

for further approvals
see page 2



Applications

For measuring points with high dynamic pressure loads or vibrations
For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
Hydraulics
Compressors, shipbuilding

Special features

Vibration and shock resistant
Especially sturdy design
NS 63 and 100 with German Lloyd and Gosstandart approval
Scale ranges up to 0 ... 1,000 bar

Description

Design

EN 837-1

Nominal size in mm

50, 63, 100

Accuracy class

NS 50, 63: 1.6

NS 100: 1.0

Scale ranges

NS 50: 0 ... 1 to 0 ... 400 bar

NS 63, 100: 0 ... 0.6 to 0 ... 1,000 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

Bourdon tube pressure gauge , model P.23,
lower mount

Pressure limitation

NS 50, 63: Steady: 3/4 x full scale value
Fluctuating: 2/3 x full scale value
Short time: Full scale value
NS 100: Steady: Full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.3 x full scale value

Permissible temperature

Ambient: -20 ... +60 °C

Medium: +60 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):
Max. $\pm 0.4 \%$ /10 K of the span

Standard version**Process connection**

Copper alloy, lower mount (LM) or back mount (BM),
NS 50, 63: G ¼ B (male), 14 mm flats
NS 100: G ½ B (male), 22 mm flats

Pressure element

NS 50:
Copper alloy, C-type or helical type
NS 63:
≤ 400 bar: Copper alloy, C-type or helical type
> 400 bar: Stainless steel 316L, helical type
NS 100:
< 100 bar: Copper alloy, C-type
≥ 100 bar: Stainless steel 316L, helical type

Movement

Copper alloy

Dial

NS 50, 63: Plastic ABS, white, with pointer stop pin
NS 100: Aluminium, white, black lettering

Pointer

NS 50, 63: Plastic, black
NS 100: Aluminium, black

Window

Plastic, crystal-clear

Case

Natural finish stainless steel, with blow-out device
with

NS 50: in case back, 12 o'clock
NS 63, 100: at case circumference, 12 o'clock O-ring
seal between case and connection.

Scale ranges ≤ 0 ... 16 bar with compensating valve
to vent case.

Bezel ring

Crimp ring, glossy finish stainless steel, triangular
bezel

Filling liquid

Glycerine

Ingress protection

IP 65 per EN 60529 / IEC 60529

Options

Other process connection

NS 100: Zero adjustment (in front)

Increased medium temperature with special soft
solder

- NS 50, 63: 100 °C

- NS 100: 150 °C

Ambient temperature resistant -40 ... +60 °C with
silicone oil filling

NS 50: Higher scale ranges up to 0 ... 1,000 bar

Panel mounting flange, stainless steel, for back
connection

Surface mounting flange, stainless steel (not NS 50)

Mounting clamp (for back connection)

Approvals

**GL, ships, shipbuilding (e.g. offshore), Germany
EAC, import certificate, customs union
Russia/Belarus/Kazakhstan GOST,
metrology/measurement technology, Russia
KBA, automotive, European Community CRN,
safety (e.g. electr. safety, overpressure, ...),
Canada**

Certificates 1)

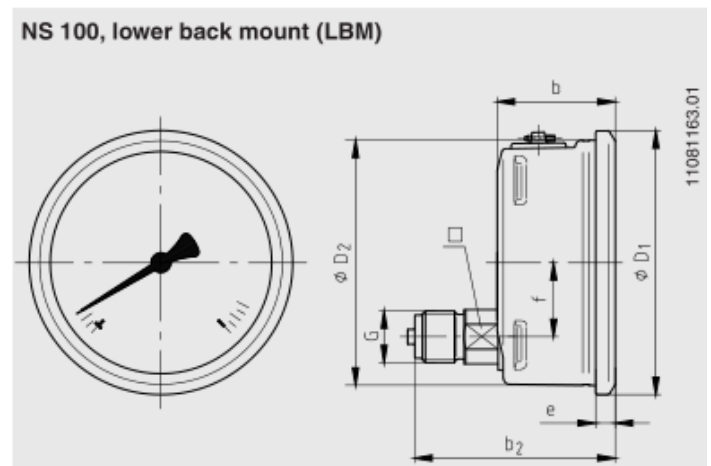
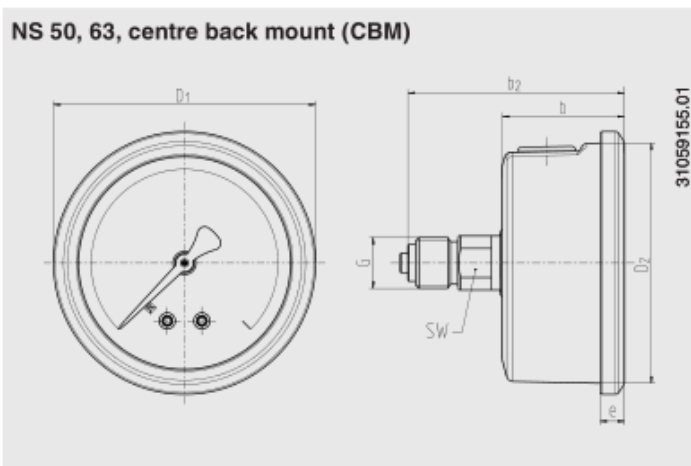
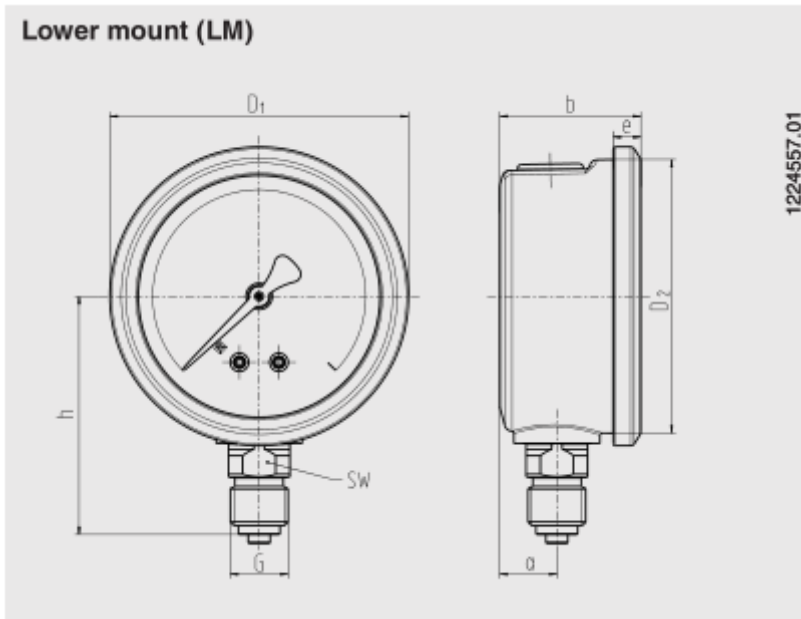
2.2 test report per EN 10204 (e.g. state-of-the-art
manufacturing, material proof, indication accuracy)

3.1 inspection certificate per EN 10204 (e.g. indication
accuracy)

1) Option

Approvals and certificates, see website

Standard version



NS	Dimensions in mm										Weight in kg
	a	b ±0.5	b ₂ ±0.5	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
100	15.5	48	81.5	107	100	8	30	G ½ B	87	22	0.80

Process connection per EN 837-1 / 7.3

Ordering information

Model / Nominal size / Scale range / Connection size / Connection location / Options