

# Bourdon tube pressure gauge Model 213.53, liquid filling, stainless steel case

WIKA data sheet PM 02.12



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



Bourdon tube pressure gauge, model 213.53.100,  
lower mount

## 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

### 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

### Ingress protection

IP 65 per EN 60529 / IEC 60529

## 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:  
Cu-alloy, C-type or helical type

NS 63:  
≤ 400 bar: Cu-alloy, C-type or helical type  
> 400 bar: Stainless steel 316L, helical type

NS 100:  
< 100 bar: Cu-alloy, C-type  
≥ 100 bar: Stainless steel 316L, helical type

### Movement

Cu-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

## Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Measuring system and movement from stainless steel (model 233.53)
- 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)

## CE conformity

### Pressure equipment directive

97/23/EC, PS > 200 bar, module A, pressure accessory

## Approvals

- **GL**, ships, shipbuilding (e.g. offshore), Germany
- **GOST**, metrology/measurement technology, Russia
- **GOST-R**, import certificate, Russia
- **CRN**, safety (e.g. electr. safety, overpressure, ...), Canada

## Certificates <sup>1)</sup>

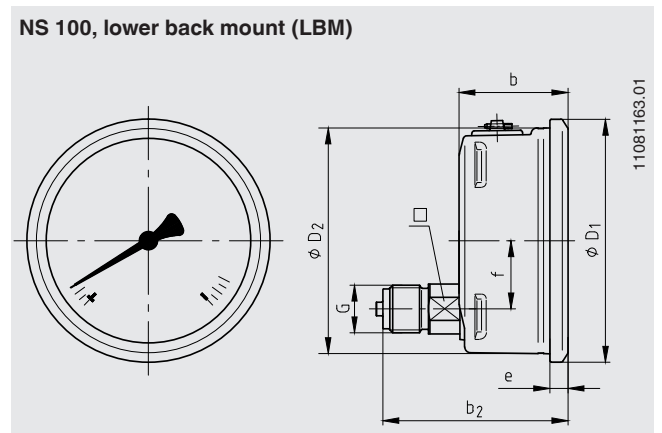
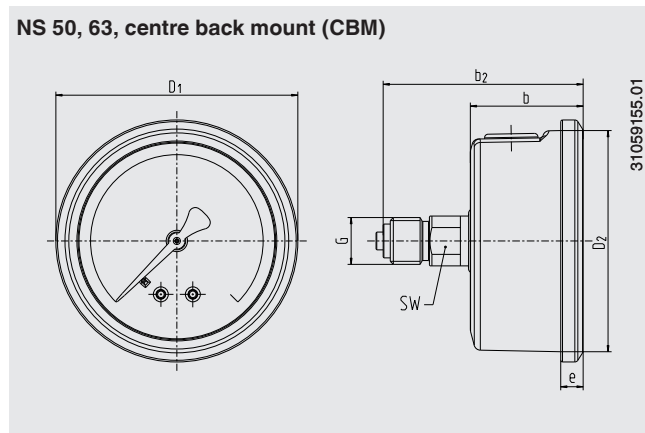
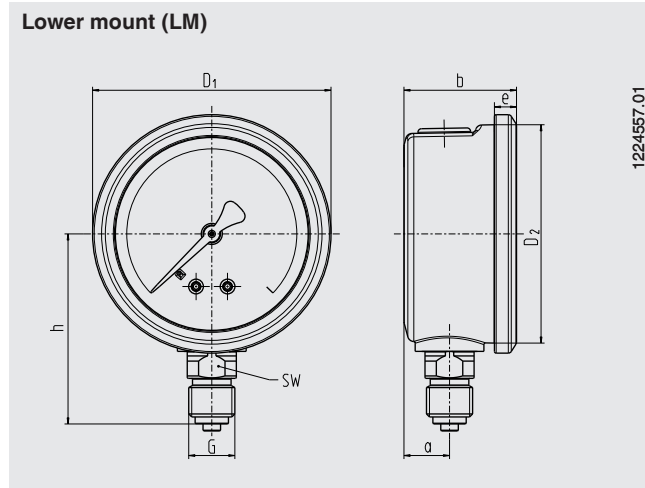
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)

1) Option

Approvals and certificates, see website

# Dimensions in mm

## Standard version



NS	Dimensions in mm										Weight in kg
	a	b ±0.5	b <sub>2</sub> ±0.5	D <sub>1</sub>	D <sub>2</sub>	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

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