

# Bourdon tube pressure gauge Model 113.53, standard version with liquid filling

WIKA data sheet PM 01.08



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

## Special features

- Vibration and shock resistant
- Robust design
- Stainless steel case with liquid filling
- Scale ranges up to 0 ... 600 bar



Bourdon tube pressure gauge model 113.53.080

## Description

### Design

EN 837-1

### Nominal size in mm

40, 80, 100

### Accuracy class

2.5

### Scale ranges

NS 40: 0 ... 1 to 0 ... 400 bar

NS 80, 100: 0 ... 1 to 0 ... 600 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

### Pressure limitation

Steady: 3/4 x full scale value

Fluctuating: 2/3 x full scale value

Short time: 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 centre back mount (CBM),  
NS 40: G 1/8 B (male), 14 mm flats  
NS 80: G 1/2 B (male), 22 mm flats  
NS 100: G 1/2 B (male), 22 mm flats

### Pressure element

Copper alloy, C-type or helical type

### Movement

Copper alloy

### Dial

Aluminium, white, black lettering, with pointer stop pin

### Pointer

Plastic, black

### Window

Plastic, crystal-clear

### Case

Natural finish stainless steel, with blow-out device at case circumference, 12 o'clock.  
Scale ranges  $\leq 0 \dots 16$  bar with compensating valve to vent case

### Bezel ring

Crimp ring, glossy finish stainless steel, triangular bezel

### Filling liquid

Glycerine

## Options

- Other process connection
- NS 80, 100: Panel mounting flange, stainless steel, for back mount connection
- NS 80, 100: Surface mounting flange, stainless steel
- Mounting bracket
- Ambient temperature resistant  $-40 \dots +60$  °C with silicone oil filling
- NS 80, 100: Accuracy class 1.6

## CE conformity

### Pressure equipment directive

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

## Approvals

- GOST, metrology/measurement technology, Russia
- GOST-R, import certificate, Russia
- CRN, safety (e.g. electr. safety, overpressure, ...), Canada

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

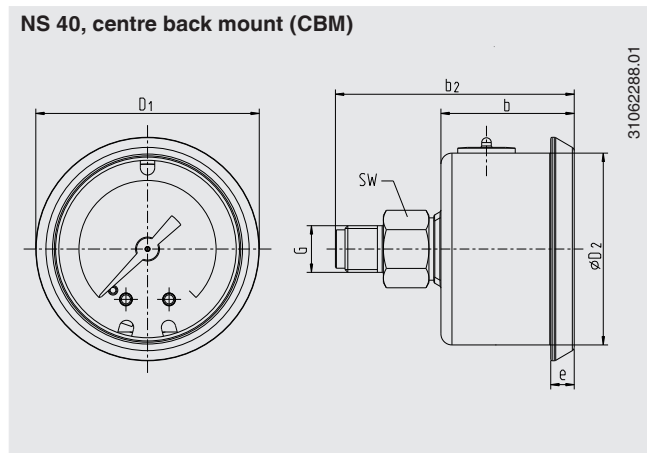
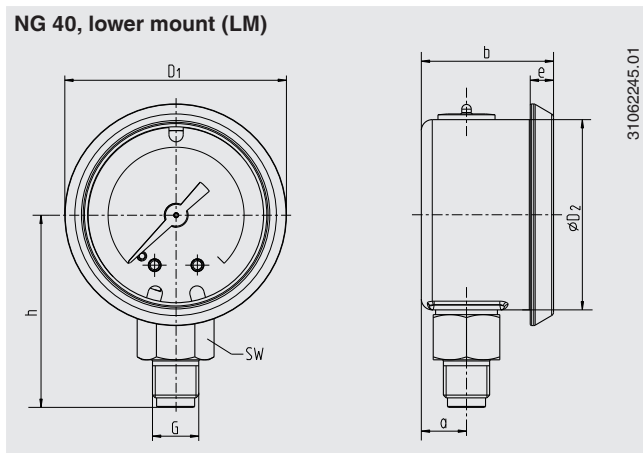
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)

1) Option

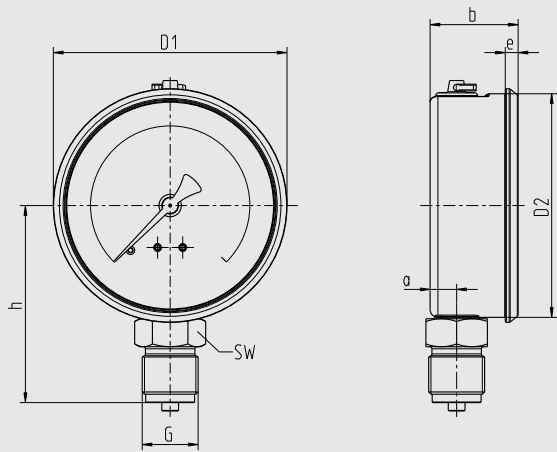
Approvals and certificates, see website

## Dimensions in mm

### Standard version

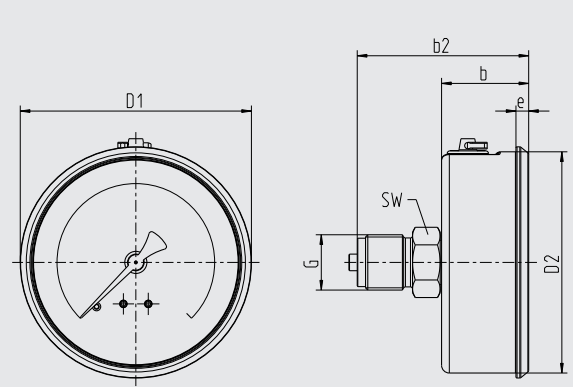


NS 80, lower mount (LM)



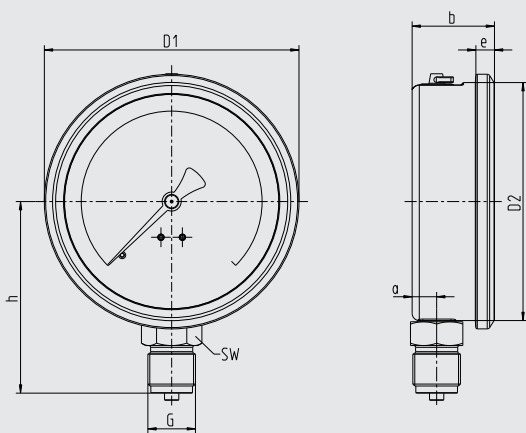
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NS 80, centre back mount (CBM)



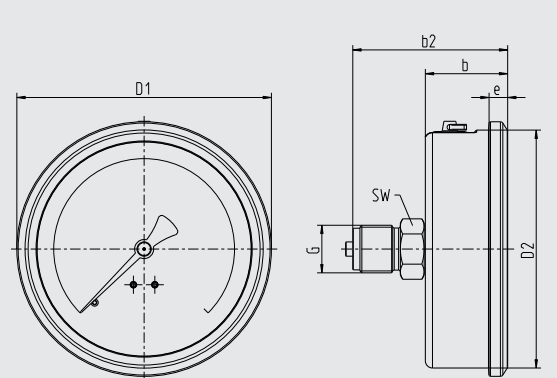
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NS 100, lower mount (LM)



31067107.01

NS 100, centre back mount (CBM)



31067115.01

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	G	h ±1	SW	
40	9.5	28	50	46.5	40	6	G 1/8 B	40.5	14	0.15
80	9.5	32	62.5	83.5	80	5.5	G 1/2 B	70.5	22	0.35
100	10.5	34.5	65	106.5	100	8	G 1/2 B	80.5	22	0.55

Process connection per EN 837-1 / 7.3

**Ordering information**

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

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