

Bourdon Tube Pressure Gauges Model 213.53, Liquid Filling, Stainless Steel Case

WIKA Data Sheet PM 02.12



Applications

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

Special Features

- Vibration and shock resistant
- Especially sturdy design
- NS 63 and 100 approved by German Lloyd and Gosstandart
- Scale ranges up to 0 ... 1000 bar



**Bourdon Tube Pressure Gauge, Model 213.53,
Lower Mount**

Description

Design

EN 837-1

Nominal size in mm

40, 50, 63, 100

Accuracy class

NS 40: 2.5

NS 50, 63: 1.6

NS 100: 1.0

Scale ranges

NS 40, 50: 0 ... 1 to 0 ... 40 bar

NS 63, 100: 0 ... 0.6 to 0 ... 1000 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

NS 40, 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

Operating temperature

Ambient: NS 40, 50, 63: 0 ... +60 °C

NS 100: -20 ... +60 °C

Medium: +60 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):

max. ± 0.4 %/10 K of the span

Ingress protection

IP 65 per EN 60 529 / IEC 529

Process connection

Cu-alloy,
lower mount (LM) or back mount
NS 40: G 1/8 B (male), 14 mm flats
NS 50, 63: G 1/4 B (male), 14 mm flats
NS 100: G 1/2 B (male), 22 mm flats

Pressure element

NS 40, 50, 63:
< 60 bar: Cu-alloy, C-type
≥ 60 bar: Cu-alloy, helical type
NS 100:
< 100 bar: Cu-alloy, C-type
≥ 100 bar: stainless steel 316L, helical type

Movement

Cu-alloy

Dial

NS 40, 50, 63: Plastic, white, with pointer stop pin
NS 100: Aluminium, white, black lettering

Pointer

NS 40, 50, 63: Plastic, black
NS 100: Aluminium, black

Window

Plastic, crystal-clear

Case

Natural finish stainless steel, with pressure relief at case circumference, 12 o'clock.
O-Ring seal between case and connection.
Ranges ≤ 0 ... 16 bar with compensating valve to vent case.

Bezel ring

Crimp ring, glossy finish stainless steel, triangular bezel

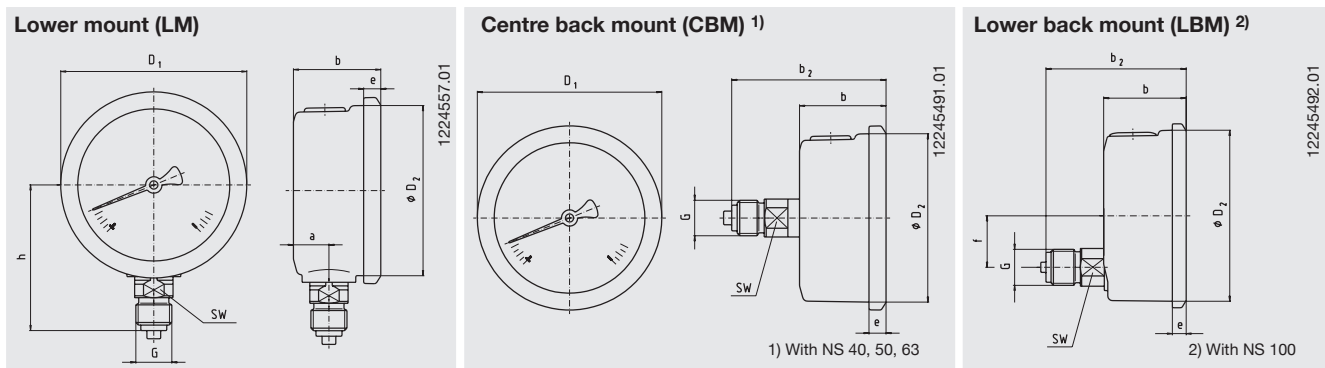
Liquid filling

Glycerine 99.7 %

Options

- NS 50, 63: measuring system and movement from stainless steel (model 233.53)
- NS 100: zero point adjustment (in front)
- Increased medium temperature up to 100 °C with special soft solder
- Ambient temperature resistant -40 ... +60 °C with silicone oil filling
- Panel mounting flange, stainless steel, for back connection (not NS 40)
- Surface mounting flange, stainless steel (not NS 40 and 50)
- Mounting clamp (for back connection)

Dimensions in mm



NS	Dimensions in mm									Weight in kg	
	a	b ± 0.5	b ₂ ± 0.5	D ₁	D ₂	e	f	G	h ± 1		
40	9.5	30	2	46.5	40	6	-	G 1/8 B	40	14	0.10
50	12	30	4	55	50	5.5	-	G 1/4 B	48	14	0.15
63	13	32	6	68	62	6.5	-	G 1/4 B	54	14	0.21
100	15.5	48	6	107	100	8	30	G 1/2 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

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



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