

## Bourdon tube pressure gauge Model 213.40, liquid filling, forged brass case



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
- Mining
- Hydraulics
- Shipbuilding

### Special features

- Vibration and shock resistant
- Especially robust design
- NS 63 and 100 with Germanischer Lloyd and Gosstandart approval
- Scale range up to 0 ... 1,000 bar



**Bourdon tube pressure gauge model 213.40**

## Description

**Design**  
EN 837-1

**Nominal size in mm**  
63, 80, 100

**Accuracy class**  
NS 63, 80: 1.6  
NS 100: 1.0

**Scale ranges**  
0 ... 0.6 to 0 ... 1,000 bar  
or all other equivalent vacuum or combined pressure and vacuum ranges

### Pressure limitation

NS 63, 80:	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 63: G ¼ B (male), 14 mm flats

NS 80, 100: G ½ B (male), 22 mm flats

### Pressure element

NS 63:

Copper alloy, C-type or helical type

NS 80, 100:

Copper alloy, C-type

Stainless steel 1.4571 or 1.4404, helical type

### Movement

Copper alloy

### Dial

NS 63: Plastic ABS, white, with pointer stop pin

NS 80, 100: Aluminium, white

Black lettering

### Pointer

Aluminium, black

### Window

Clear non-splintering plastic

### Case

Solid forged brass, with blow-out device at case circumference, 12 o'clock.

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

### Bezel ring

Crimp ring, stainless steel

NS 63, 80: Natural finish

NS 100: Polished

### Filling liquid

Glycerine

## Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Internal pressure compensation (pressure compensation foil)
- Increased medium temperature up to 100 °C with special soft solder
- Ambient temperature resistant -40 ... +60 °C with silicone oil filling
- Panel or surface mounting flange
- Triangular bezel with clamp
- Centre back mount (CBM) for NS 80 with scale range ≥ 60 bar

## CE conformity

### Pressure equipment directive

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

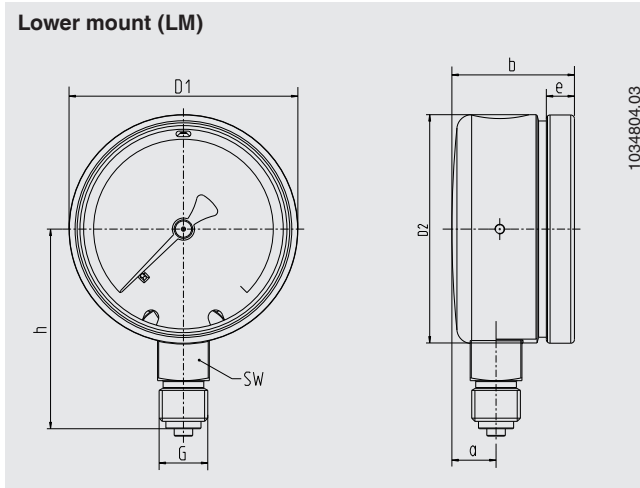
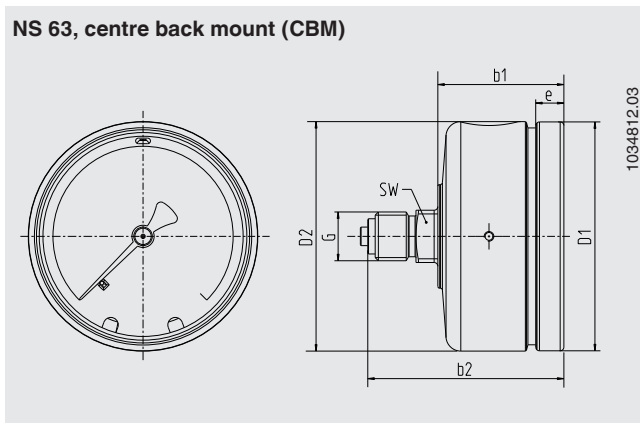
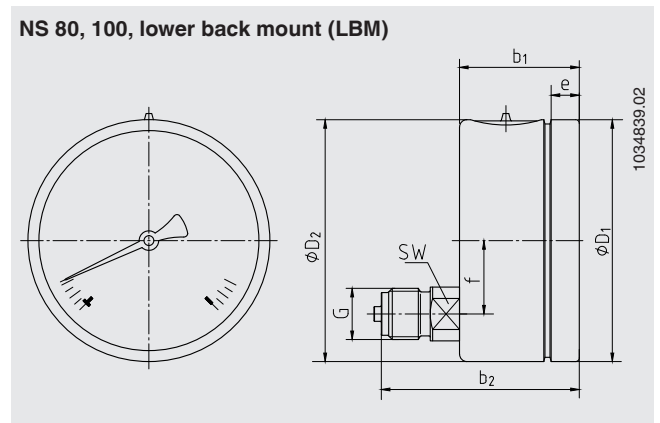
## Approvals

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

## Certificates (Option)

- 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)

Approvals and certificates, see website

**Dimensions in mm**
**Standard version**
**Lower mount (LM)**

**NS 63, centre back mount (CBM)**

**NS 80, 100, lower back mount (LBM)**


NS	Dimensions in mm											Weight in kg
	a	b	b <sub>1</sub>	b <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	e	f	G	h ±1	SW	
63	12	36	36	56	62	62	10.5	-	G ¼ B	54	14	0.30
80	14	38.5	38.5	69.5	79	79	8.5	23	G ½ B	76	22	0.80
100	13.5	49	49	81	99	99	11.5	30	G ½ B	87	22	1.10

Process connection per EN 837-1 / 7.3