# Bourdon tube pressure gauge
# Lower mount, standard version
# Model 111.10



for further approvals
see page 3

## Applications

- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Pneumatics
- Heating and air-conditioning technology
- Medical engineering

## Special features

- Reliable and cost-effective
- Design per EN 837-1
- Nominal size 40, 50, 63, 80, 100 and 160
- Scale ranges up to 0 ... 400 bar


**Bourdon tube pressure gauge model 111.10**

## Description

**Design**
EN 837-1

**Nominal size in mm**
40, 50, 63, 80, 100 and 160

**Accuracy class**
2.5

**Scale ranges**
0 ... 0.6 to 0 ... 400 bar (NS 160: max. 40 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. ±0.4 %/10 K of the span



Data sheets showing similar products:
Back mount; model 111.12; see data sheet PM 01.09
Panel mounting series, back mount; model 111.16; see data sheet PM 01.10

## Standard version

**Process connection**
Copper alloy,
lower mount (LM)
NS 40: G 1/8 B (male), 14 mm flats
NS 50,63: G 1/4 B (male), 14 mm flats
NS 80, 100, 160: G 1/2 B (male), 22 mm flats

**Pressure element**
Copper alloy
C-type or helical type

**Movement**
Copper alloy

**Dial**
NS 40, 50, 63: Plastic, white, with pointer stop pin
NS 80, 100, 160: Aluminium, white, with pointer stop pin
Black lettering, red mark pointer with measuring ranges 0 ... 0.6 to 0 ... 60 bar

**Pointer**
Plastic, black
NS 160: Aluminium, black

**Case**
Plastic, black
NS 160: Steel, black

**Window**
Plastic, crystal-clear, snap-fitted in case
NS 160: Instrument glass

**Bezel ring**
without
NS 160: Steel, black

## Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Accuracy class 1.6
- Case steel, black, for NS 40, 50 and 63 with blow-out device
- Surface mounting flange (not with NS 40 and 50)

## Special versions

**For closed heating systems**
NS 63, 80
with red mark pointer and adjustable green sector, scale ranges 0 ... 4 bar, red mark at 2.5 or 3 bar

**For heating systems**
NS 80, 100, 160
Scale ranges 0 ... 0.6 or 0 ... 1 bar, with retard scale spacing and red mark pointer

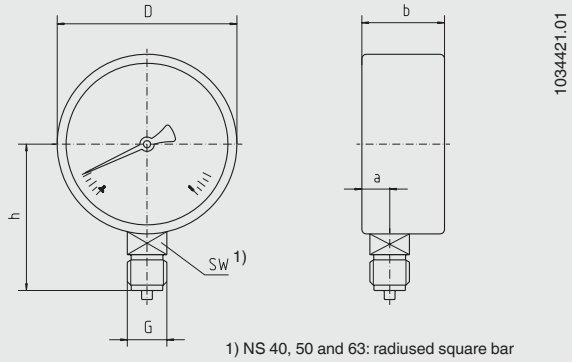
**For refrigeration plants**
NS 63, 80
with additional temperature scale for refrigerants in °C, refrigerants: R 12, R 22, R 502, R 404 a or R 134 a

**For water-level indication (hydrometer)**
NS 80, 100, 160
Scale ranges 0 ... 0.6 to 0 ... 40 bar, with second scale in mWS

## Dimensions in mm

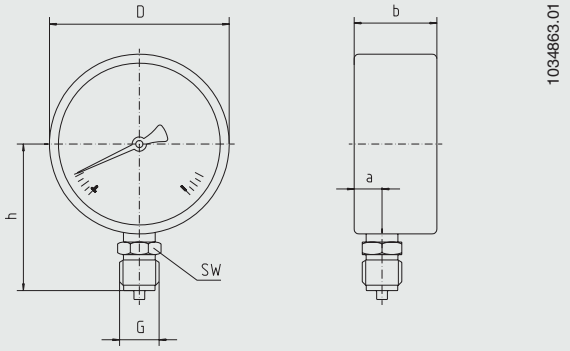
### Standard version

**40, 50, 63 and 160 mm**




1) NS 40, 50 and 63: radiused square bar

**80 and 100 mm**




| NS | Dimensions in mm | | | | | | Weight in kg |
|---|---|---|---|---|---|---|---|
| | a | b ±0.5 | D | G | h ±1 | SW | |
| **40** | 9.5 | 26 | 39 | G ⅛ B | 36 | 14 | 0.08 |
| **50** | 10 | 27.5 | 49 | G ¼ B | 45 | 14 | 0.10 |
| **63** | 9.5 | 27.5 | 62 | G ¼ B | 53.5 | 14 | 0.13 |
| **80** | 11.5 | 30 | 79 | G ½ B | 72 | 22 | 0.18 |
| **100** | 11.5 | 30.5 | 99 | G ½ B | 83.5 | 22 | 0.21 |
| **160** | 15.5 | 42 | 160 | G ½ B | 115.5 | 22 | 0.85 |

Process connection per EN 837-1 / 7.3

## 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 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

**Ordering information**
Model / Nominal size / Scale range / Connection size / Options





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