

Mechanical pressure measurement

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. $\pm 0.4 \%$ /10 K of the span

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

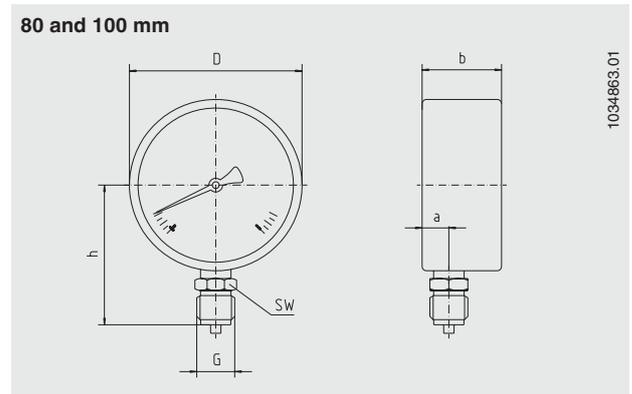
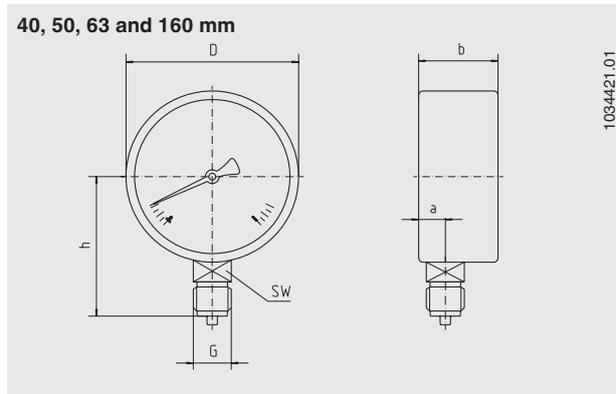
For water-level indication (hydrometer)

NS 80, 100, 160

Scale ranges 0 ... 0.6 to 0 ... 40 bar, with second scale in mWS

Dimensions in mm

Standard version



NS	Dimensions in mm						Weight in kg
	a	b ±0.5	D	G	h ±1	SW	
40	9.5	26	39	G 1/8 B	36	14	0.08
50	10	27.5	49	G 1/4 B	45	14	0.10
63	9.5	27.5	62	G 1/4 B	53.5	14	0.13
80	11.5	30	79	G 1/2 B	72	22	0.18
100	11.5	30.5	99	G 1/2 B	83.5	22	0.21
160	15.5	42	160	G 1/2 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