

Capsule pressure gauge, copper alloy Stainless steel case Model 612.20, NS 63, 100 and 160

WIKA data sheet PM 06.02



for further approvals
see page 3

Applications

- Robust design and ingress protection IP54
- For gaseous, dry and non-aggressive media
- Medical, vacuum, environmental, laboratory technology, for contents measurement and filter monitoring

Special features

- Zero point setting in front
- Case from stainless steel
- Special connection location on request
- Low scale ranges from 0 ... 6 mbar



Capsule pressure gauge, model 612.20

Description

The model 612.20 capsule pressure gauge is based upon the proven capsule measuring system. The capsule measuring principle is particularly suitable for low pressures. On pressurisation, the expansion of the capsule element, proportional to the incident pressure, is transmitted to the movement and indicated.

The case and the bayonet ring are made from stainless steel. The material of the process connection is a copper alloy.

The modular design enables a multitude of combinations of case materials, process connections, nominal sizes and scale ranges. Due to this high variance, the instrument is suitable for use in a wide range of applications within industry.

For mounting in control panels, the capsule pressure gauges can, depending on the process connection, be fitted with a surface mounting flange or with a triangular bezel and mounting bracket.

Standard version

Design

EN 837-3

Nominal size in mm

63, 100, 160

Accuracy class

1.6

Scale ranges

NS 63: 0 ... 25 mbar to 0 ... 600 mbar

NS 100: 0 ... 10 mbar to 0 ... 600 mbar

NS 160: 0 ... 6 mbar to 0 ... 600 mbar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

Steady: Full scale value

Fluctuating: 0.9 x full scale value

Permissible temperature

Ambient: -20 ... +60 °C

Medium NS 63, 100: ≤ 100 °C

Medium NS 160: ≤ 80 °C

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. ±0.6 %/10 K of full scale value

Ingress protection per IEC/EN 60529

IP54

Process connection

Copper alloy

NS 63: Male thread G ¼ B, SW 14, lower mount (radial) or centre back mount

NS 100, 160: Male thread G ½ B, SW 22, lower mount (radial) or lower back mount

Pressure element

Copper alloy

Sealing

NBR

Movement

Copper alloy

Zero point setting with adjustment screw

- In front, after opening the bayonet ring
- In front, through opening the window ¹⁾

Dial

Aluminium, white, black lettering

Pointer

Aluminium, black

Case

Stainless steel

Window

Instrument glass

Ring

Bayonet ring, stainless steel

Options






- Other process connection
- Overload or vacuum safety with scale ranges < 40 mbar: 3 x full scale value scale ranges ≥ 40 mbar: 10 x full scale value
- Mounting
 - Panel or surface mounting flange
 - Triangular profile ring with clamp ²⁾For information on “Instrument mounting, mounting flanges, panel cutouts”, see Technical information IN 00.04
- Mark pointer/drag pointer
 - Red mark pointer on dial, fixed
 - Red mark pointer on window, adjustable ³⁾
 - Red drag pointer on window, adjustable

1) For versions with mounting flange the opening of the window for the zero point setting is sealed with a taper plug.

2) Only available for back mount versions.

3) Only available for NS 100, 160.

Approvals

| Logo | Description | Country |
|---|---|------------|
|  | GOST (option) Metrology, measurement technology | Russia |
|  | KazInMetr (option) Metrology, measurement technology | Kazakhstan |
| - | MTSCHS (option) Permission for commissioning | Kazakhstan |
|  | BelGIM (option) Metrology, measurement technology | Belarus |
|  | UkrSEPRO (option) Metrology, measurement technology | Ukraine |
|  | Uzstandard (option) Metrology, measurement technology | Uzbekistan |
| - | CPA (option) Metrology, measurement technology | China |

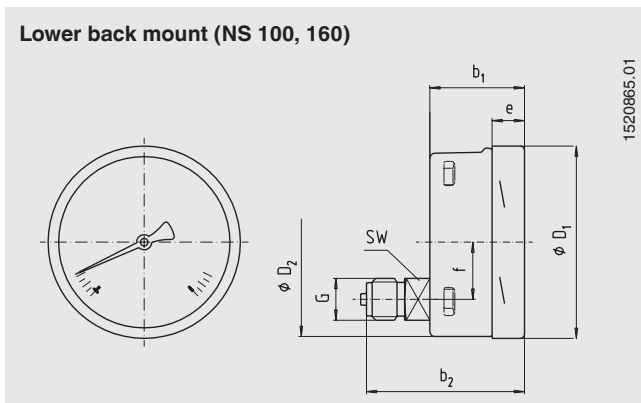
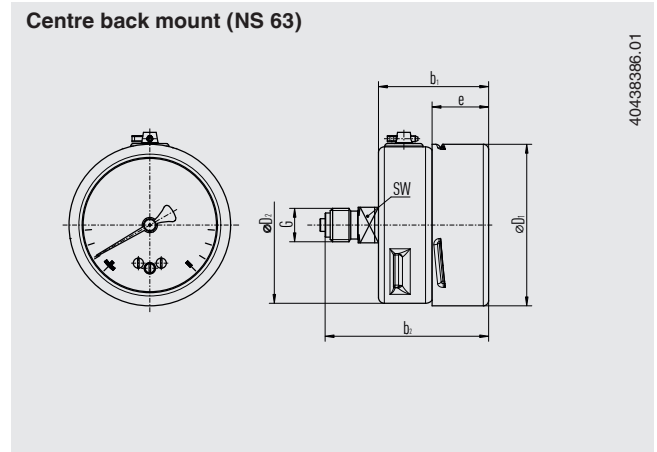
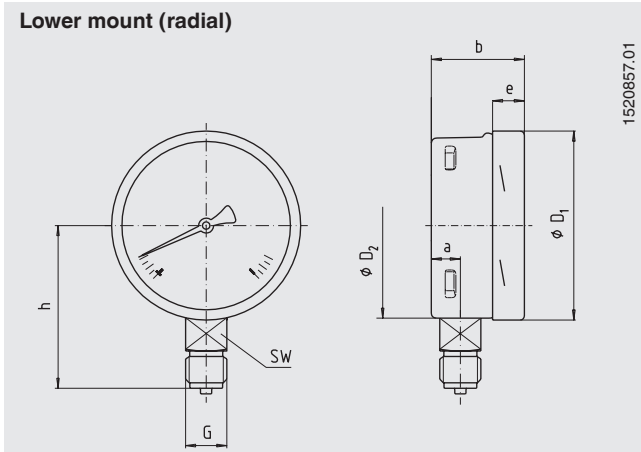
Certificates (option)

- 2.2 test report
- 3.1 inspection certificate
- SCS calibration certificate, traceable and accredited in accordance with ISO/IEC 17025

Approvals and certificates, see website

Dimensions in mm

Standard version



| NS | Dimensions in mm | | | | | | | | | | | Weight in kg |
|-----|------------------|------|----------------|----------------|----------------|----------------|------|---------------|-------|-------|----|--------------|
| | a | b | b ₁ | b ₂ | D ₁ | D ₂ | e | f | G | h ± 1 | SW | |
| 63 | 9.5 | 33 | 42 | 63 | 64 | 62 | 22 | ¹⁾ | G ¼ B | 52 | 14 | 0.19 |
| 100 | 15.5 | 49.5 | 49.5 | 83 | 101 | 99 | 17.5 | 30 | G ½ B | 87 | 22 | 0.60 |
| 160 | 15.5 | 49.5 | 49.5 | 83 | 161 | 159 | 17.5 | 50 | G ½ B | 118 | 22 | 1.10 |

¹⁾ with NS 63: Centre back mount (CBM)

Process connection per EN 837-3 / 7.3

Ordering information

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

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