

Bourdon tube pressure gauge For panel mounting Model PG23CP

WIKA data sheet PM 02.24

Applications

- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive ambience
- Specifically for the requirements within the process industry, mainly in the chemical and petrochemical industry, the oil and gas industry, power engineering and also in water/wastewater technology
- Particularly suitable for use in wellhead control panels (WHCPs) and hydraulic power units (HPUs)

Special features

- Fully welded mounting ring to prevent water ingress into the control panel (ingress protection IP 66)
- All stainless steel construction
- Optionally as safety version "S3" per EN 837-1

Description

The high-quality model PG23CP pressure gauge has been designed specifically for the requirements within the process industry. This safety pressure gauge is mainly used for applications in the chemical and petrochemical industry, the oil and gas industry, power engineering and also in water/wastewater technology.

Typical measuring points are on control units and control panels such as hydraulic power units (HPUs). For secure mounting of the instrument, a high-quality front bezel is used. The mounting situations mainly require an IP 66 ingress protection. For this reason, the sealing of the model PG23CP to the panel is made using a fully welded mounting ring and a matched flat gasket.

Pressure gauges for the process industry are manufactured completely from stainless steel for increased corrosion resistance. This enables use in the measurement of aggressive gaseous or liquid media, also in aggressive ambience.



Bourdon tube pressure gauge model PG23CP

In the EN 837-1 standard for pressure gauges, safety versions are defined. For most applications, a safety version is not required. WIKA already manufactures the model PG23CP in the "S1" safety version. This design includes an additional blow-out opening, which vents any impermissible overpressure in the case (e.g. from a burst Bourdon tube) through the back of the case.

For harsh operating conditions (e.g. vibration), all instruments are also available with an optional liquid filling.

Standard version

Design

EN 837-1

Nominal size in mm

63, 100

Accuracy class

NS 63: 1.6

NS 100: 1.0

Scale ranges

NS 63: 0 ... 1 to 0 ... 1,000 bar

NS 100: 0 ... 0.6 to 0 ... 1,600 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

NS 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

Permissible temperature

Ambient: -40 ... +60 °C

Medium: +200 °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 full scale value

Ingress protection

IP 65 per EN 60529 / IEC 60529

Front panel IP 66 after professional panel mounting

Process connection

Stainless steel 316L,
lower back mount (LBM)

NS 63: 1/4 NPT (male), 11 mm flats

NS 100: 1/2 NPT (male), 17 mm flats

Pressure element

Stainless steel 316L

< 100 bar: C-type

≥ 100 bar: Helical type

Movement

Stainless steel

Dial

Aluminium, white, black lettering

NS 63 with pointer stop pin

Pointer

Aluminium, black

Case

Fully welded, stainless steel mounting ring, with blow-out device at case circumference, 12 o'clock (NS 63) and in case back (NS 100), scale ranges $\leq 0 \dots 16$ bar with compensating valve to vent case

Window

Laminated safety glass (NS 63: Polycarbonate)

Ring

Bayonet ring, stainless steel

Sealing

Flat gasket from NBR 2.5 mm

Options

- Other process connection, e.g. Autoclave MP: 1/4-28 UNF LH-2A SM250CX20 and Autoclave HP: 1/4-28 UNF LH-2A M250C
- Sealings (model 910.17, see data sheet AC 09.08)
- Safety version "S3" with solid baffle wall and blow-out back per EN 837-1
- Restrictor
- Filling liquid (glycerine 99.7 %, glycerine 86.5 % with scale range $\leq 0 \dots 2.5$ bar)
Note: Permissible ambient temperature only to -20 °C, medium temperature only to +100 °C
- Filling liquid glycerine 86.5 % or silicone oil M50

CE conformity

Pressure equipment directive

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

Certificates

- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy) ¹⁾
- 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metallic parts, indication accuracy) ¹⁾

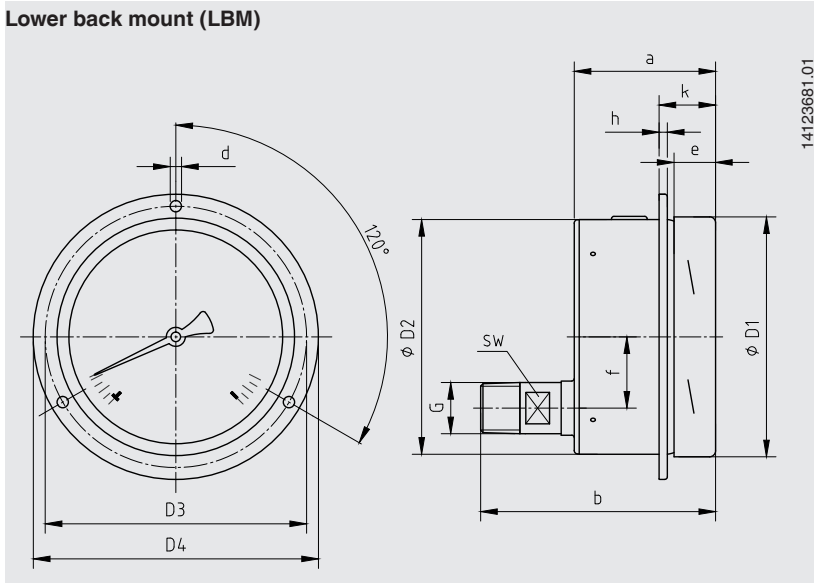
1) Option

Approvals and certificates, see website

Dimensions in mm

Standard version

Lower back mount (LBM)



| NS | Dimensions in mm | | | | | | | | | | | | | Weight in kg | |
|-----|------------------|----|-----|-----|-----|-----|-----|------|------|-----|----|-------|----|--------------|--------|
| | a | b | D1 | D2 | D3 | D4 | d | e | f | h | k | G | SW | unfilled | filled |
| 63 | 42 | 69 | 63 | 63 | 75 | 85 | 3.6 | 14.5 | 18.5 | 2.5 | 15 | ¼ NPT | 11 | 0.16 | 0.20 |
| 100 | 59.5 | 99 | 101 | 100 | 116 | 132 | 4.8 | 17 | 30 | 3 | 21 | ½ NPT | 17 | 0.60 | 0.90 |

Process connection per EN 837-1 / 7.3

Ordering information

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

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