

Bourdon tube pressure gauge, heavy-duty version

Stainless steel case, liquid filling, NS 80

Model PG21HD

WIKA data sheet PM 02.13

Applications

- For measuring points with high dynamic pressure loads and vibrations
- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Hydraulics
- Machine building and equipment manufacturing

Special features

- Pressure element ≤ 40 bar copper alloy, > 40 bar stainless steel
- Vibration and shock-resistant
- Especially robust design
- Nominal size 80 mm
- Scale ranges from 0 ... 1,000 bar



Fig. left: Model PG21HD, radial connection
Fig. right: Model PG21HD, back mount connection, with mounting bracket

Description

The model PG21HD Bourdon tube pressure gauge is suitable for measuring points with high demands on the measurement accuracy, reproducibility and long-term stability. A multitude of options enables users to adapt the instruments to their specific requirements.

The model PG21HD pressure gauges are based on the proven Bourdon tube measuring system. On pressurisation, the deflection of the Bourdon tube, proportional to the incident pressure, is transmitted to the movement via a link and indicated.

The model PG21HD meets the requirements of the international industry standard EN 837-1 for Bourdon tube pressure gauges.

The instrument complies with the accuracy class 1.0 and is thus suited for a wide range of applications in the machine-building and equipment-manufacturing industries. Resistance to shock and vibration is provided due to the glycerine case filling.

The mounting bracket, which is available as an option, enables the panel mounting of pressure gauges with back mount process connection.

The model PG21HD is also available in customer-specific versions, e.g. with individual dial layout.

Specifications

Design

EN 837-1

Nominal size in mm

80

Accuracy class

1.0

Scale ranges

0 ... 0.6 to 0 ... 1,000 bar

Pressure limitation

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: +80 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):
max. $\pm 0.3 \%$ /10 K of the span

Ingress protection per IEC/EN 60529

IP65

Process connection

Copper alloy
Lower mount (radial) or centre back mount, G 1/2 B male

Pressure element

≤ 40 bar copper alloy, > 40 bar stainless steel

Movement

Copper alloy

Dial

Aluminium, white

Pointer

Aluminium, black

Case

Stainless steel

Window

Plastic, crystal-clear

Ring

Crimped triangular bezel, stainless steel, glossy finish

System fill fluid

Glycerine

Options

- Other process connection
- Case: Stainless steel, polished or black lacquered
- Overload safety: 1.5 to 2 x full scale value
- Window: Laminated safety glass
- Mounting bracket
- Panel or surface mounting flange
- Filling liquid: Silicone oil
- Without liquid filling (IP54)

Panel mounting flange



Approvals

| Logo | Description | Country |
|------|--|----------------|
| CE | EU declaration of conformity Pressure equipment directive | European Union |

Certificates (option)

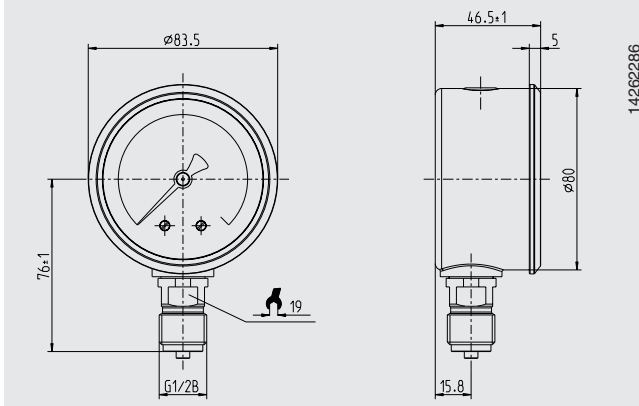
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metallic parts, indication accuracy)

Approvals and certificates, see website

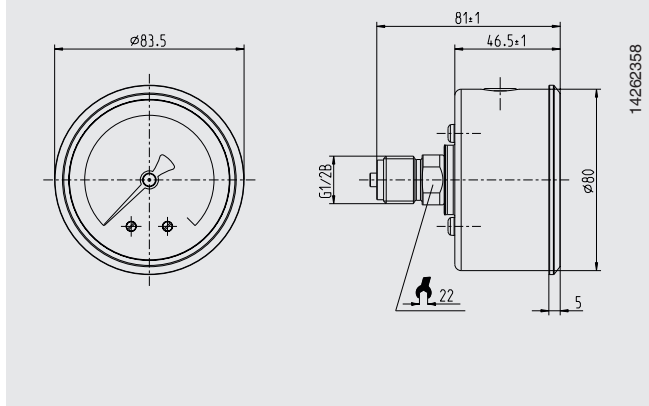
Dimensions in mm

Standard version

Lower mount (radial)



Centre back mount



Ordering information

Model / Scale range / Filling liquid / Process connection / Connection location / Options

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