Bourdon tube pressure gauge, stainless steel
For high pressure applications to 40,000 psi
Model PG23HP-S, standard version

Applications
- For liquid media in high-pressure applications (e.g. water, hydraulic oil)
- Test benches (e.g. for hydraulic components)
- Water jet cutting
- High-pressure cleaning
- High-pressure generators

Special features
- Safety pressure gauge in solid front design with blow-out back. In compliance with the requirements and test conditions of the DIN 16001 high-pressure standard
- Wetted parts from 316L stainless steel
- Long service life in static pressure applications
- Scale ranges from 0 ... 30,000 psi up to 0 ... 40,000 psi

Description
The model PG23HP-P Bourdon tube pressure gauge has been designed specifically for high-pressure applications up to 40,000 psi (3000 bar).

Typical applications for this pressure gauge can be found in water jet cutting, high-pressure cleaning and test bench construction.

WIKA manufactures and qualifies model PG23HP-P in accordance with the requirements of the new DIN 16001 high pressure standard in the “S3” safety version. The safety version solid-front design features a laminated safety glass, a solid wall between the measuring system and a blow-out back. In the event of a Bourdon tube failure, the release of energy and media is directed to the back of gauge, protecting the operator in front of the gauge.

A silicone oil case filling to increase the dampening effect in applications where shocks and vibrations are present is available as an option.

The well-proven fully all welded stainless steel construction guarantees a long service time and a permanently sealed structure.
Specifications

Design
DIN 16001

Nominal size in mm
4" (100 mm) and 6" (160 mm)

Accuracy
± 2/1/2 % of full span per ASME B40.100 Grade A
Class 1.6 per EN 837-1

Scale ranges
0 ... 30,000 psi (2,000 bar)
0 ... 40,000 psi (2,500 bar)

Pressure limitation
Steady: 3/4 x full scale value
Fluctuating: 2/3 x full scale value
Short time: Full scale value

Permissible temperature
Ambient: -40 … +140°F (-40…+60 °C)
Medium: +392°F (+200 °C) maximum (dry gauges)
+212°F (+100 °C) maximum (liquid filled gauges)

Temperature effect
Additional temperature error if the media temperature
deviates from the reference temperature of +67°F (+20°C): Max. ±0.4 % of full scale value per 18°F temperature change

Ingress protection
IP65 per IEC/EN 60529

Process connection
Stainless steel 316L
NS 100: Lower mount or back mount
NS 160: Lower mount only
■ G½B (up to max. 40,000 psi / 2,500 bar)
■ 9/16 - 18 UNF (female) with 60° sealing cone per Autoclave Engineers
■ M16 x 1.5 (female) with inner sealing cone 60°
■ 5/8 - 18 UNF (female) with inner sealing cone 60°
■ others on request

Pressure element
316L stainless steel, helical type

Movement
Stainless steel

Dial
Aluminium, white, black lettering

Pointer
Aluminium black, adjustable

Case
Stainless steel, safety design with solid front and blow-out back

Window
Laminated safety glass

Ring
Bayonet ring, stainless steel

Filling liquid (optional)
Silicone oil M50

Options
- Ingress protection IP66 (NEMA 4/4X)
- Panel mounting flange, stainless steel or polished stainless steel
- Surface mounting lugs on the back, stainless steel
- Mark pointer adjustable from the outside
- Mark pointer on bayonet ring adjustable from the outside
Approvals

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<thead>
<tr>
<th>Logo</th>
<th>Description</th>
<th>Country</th>
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| ![CE logo](ce.png) | EU declaration of conformity  
Pressure equipment directive  
PS > 200 bar, module A, pressure accessory | 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

<table>
<thead>
<tr>
<th>NS</th>
<th>Dimensions in mm</th>
<th>Weight in kg</th>
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<tbody>
<tr>
<td></td>
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<td>b</td>
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<tr>
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Process connection

Ordering information
Model / Nominal size / Scale range / Process connection / Connection location / Options