Bourdon tube pressure gauge, stainless steel
For panel mounting
Model PG23CP

Applications

- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive environments
- 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

- All welded mounting ring to avoid the ingress of water into the panel (ingress protection IP66)
- All stainless steel construction
- Optionally as safety version “S3” per EN 837-1

Description

The high-quality model PG23CP pressure gauge has been designed especially for the requirements of 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 IP66 ingress protection. For this reason, the sealing of the model PG23CP to the panel is made using an all 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 environments. 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), the instruments are also available with an optional liquid filling.
Standard version

Version
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

<table>
<thead>
<tr>
<th>Nominal size</th>
<th>Steady (bar)</th>
<th>Fluctuating (bar)</th>
<th>Short time (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 63</td>
<td>3/4 x full scale value</td>
<td>2/3 x full scale value</td>
<td>Full scale value</td>
</tr>
<tr>
<td>NS 100</td>
<td>Full scale value</td>
<td>0.9 x full scale value</td>
<td>1.3 x full scale value</td>
</tr>
</tbody>
</table>

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. ±0.4 %/10 K of full scale value

Ingress protection per IEC/EN 60529
IP65
IP66 at the front, after professional panel mounting

Process connection
Stainless steel 316L (NS 63: 1.4571)
Lower back mount
NS 63: ¼ NPT (male), SW 11
NS 100: ½ NPT (male), SW 17

Pressure element
Stainless steel 316L
C-type or helical type

Movement
Stainless steel

Dial
Aluminium, white, black lettering
NS 63 with pointer stop pin

Pointer
Aluminium, black

Case
Stainless steel, all welded mounting ring, with blow-out device at case circumference, o'clock (NS 63) and on the back of the case (NS 100), scale ranges ≤ 0 ... 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 or glycerine-water mixture
  Permissible ambient temperature: -20 ... +60 °C, medium temperature: +100 °C maximum
- Filling liquid silicone oil M50

Permissible ambient temperature: -20 ... +60 °C, medium temperature: +100 °C maximum
## Approvals

<table>
<thead>
<tr>
<th>Logo</th>
<th>Description</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="CE logo" /></td>
<td>EU declaration of conformity</td>
<td>European Union</td>
</tr>
<tr>
<td><img src="image" alt="Ex logo" /></td>
<td>Pressure equipment directive  PS &gt; 200 bar, module A, pressure accessory</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Ex logo" /></td>
<td>ATEX directive (option)  Ignition protection type &quot;c&quot;, constructive safety</td>
<td></td>
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<tr>
<td><img src="image" alt="CE Ex logo" /></td>
<td>EAC (option)</td>
<td>Eurasian Economic Community</td>
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<td><img src="image" alt="GOST logo" /></td>
<td>GOST (option)  Metrology, measurement technology</td>
<td>Russia</td>
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<td>KazinMetr (option)  Metrology, measurement technology</td>
<td>Kazakhstan</td>
</tr>
<tr>
<td><img src="image" alt="MTSCHS logo" /></td>
<td>MTSCHS (option)  Permission for commissioning</td>
<td>Kazakhstan</td>
</tr>
<tr>
<td><img src="image" alt="Uzstandard logo" /></td>
<td>Uzstandard (option)  Metrology, measurement technology</td>
<td>Uzbekistan</td>
</tr>
</tbody>
</table>

## Certificates (option)

- 2.2 test report per EN 10204
- 3.1 inspection certificate per EN 10204

Approvals and certificates, see website
### Dimensions in mm

**Standard version**

#### Lower back mount

![Diagram of lower back mount]

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

*Process connection per EN 837-1 / 7.3*

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### Ordering information

**Model / Nominal size / Scale range / Process connection / Connection location / Options**

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