Bourdon tube pressure gauge, stainless steel
Process gauge, safety version per ASME B40.100
Models 232.34, 233.34, NS 4 ½"

Applications

- Increased safety requirements to protect the operator
- With case filling for applications with high dynamic pressure loads and vibrations
- For gaseous and liquid aggressive media that are not highly viscous or crystallising
- Process industry: Chemical industry, petrochemical industry, power plants, mining, on-/offshore, environmental technology, machine building and general plant construction

Special features

- Safety version with solid baffle wall designed in compliance with the requirements and test conditions of ASME B 40.100
- Excellent load-cycle stability and shock resistance
- Scale ranges from 0 … 0.6 to 0 … 1,000 bar

Description

This high-quality Bourdon tube pressure gauge has been designed especially for increased safety requirements within the process industry.

By using stainless steel materials for the wetted parts and also a highly resistant plastic for the case, the model 232.34 achieves excellent corrosion resistance. With this, the instrument is ideal for liquid and gaseous media, even in aggressive environments.

Scale ranges of 0 … 0.6 bar to 0 … 1,000 bar ensure the measuring ranges required for a wide variety of applications.

WIKA manufactures and qualifies the model 232.34 in accordance with the requirements of the American standard ASME B 40.100 in the safety version. The safety version is made up of a non-splintering plastic window, a solid baffle wall between measuring system and dial and a blow-out back. In the event of a failure, the operator is protected at the front side, as media or components can only be ejected via the back of the case.

For harsh operating conditions (e.g. vibrations), all instruments are also available with an optional case filling.
Description

Version
Per ASME B 40.100

Nominal size
4 ½"

Accuracy class
Grade 2A per ASME B 40.100
(corresponds to indication accuracy ±0.5 %)

Scale ranges
0 ... 0.6 bar to 0 ... 1,000 bar (0 ... 10 psi to 0 ... 15,000 psi)
or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation
Steady: Full scale value
Fluctuating: 0.9 x full scale value
Short time: 1.3 x full scale value

Permissible temperature
Ambient: -40 ... +65 °C with unfilled instruments
-20 ... +65 °C with instruments with glycerine
filling 1)
Medium: Long duration: ≤ 100 °C
Short duration: ≤ 130° for instruments with glycerine
filling 1) and windows from instrument glass
Short duration: ≤ 260° for unfilled instruments and
windows from instrument glass

If the pressure gauge is exposed to a medium or ambient
temperature of > 100 °C, temperature errors and damage to
components should be expected. For long-term operation
of the instrument with medium or ambient temperatures
> 100 °C, we recommend the use of a diaphragm seal or an
alternative heat-dissipating physical design measure. WIKA
employees are available for any technical questions and for
any application assistance you may require.

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
IP54 (with case filling IP65)

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

Movement
Stainless steel

Dial
Aluminium, white, black lettering, pointer stop pin at 6 o'clock

Pointer
Adjustable pointer, aluminium, black

Case
PBTP, black, with solid baffle wall (Solidfront) and blow-out
back
Integral surface mounting flange

Window
Clear non-splintering plastic (PMMA), retained by internal
threaded bezel

Case filling (model 233.34)
Glycerine

Options
- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Diaphragm seal assembly
- Window from laminated safety glass or instrument glass
- Measuring system copper alloy (model 212.34)
- Measuring system Monel (model 262.34)
- Switch contacts (data sheet AC 08.01)

Process connection
Stainless steel 316L
Lower mount or lower back mount
½ NPT (male), SW 22 mm

1) Model 233.34
Approvals

<table>
<thead>
<tr>
<th>Logo</th>
<th>Description</th>
<th>Country</th>
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<tbody>
<tr>
<td>EU declaration of conformity Pressure equipment directive PS &gt; 200 bar, module A, pressure accessory</td>
<td>European Union</td>
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<td>EAC (option) Pressure equipment directive</td>
<td>Eurasian Economic Community</td>
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<td>GOST (option) Metrology, measurement technology</td>
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<td>CRN Safety (e.g. electr. safety, overpressure, ...)</td>
<td>Canada</td>
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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. indication accuracy)

Approvals and certificates, see website
## Dimensions in mm

### Standard version

#### Lower mount (radial)

![Lower mount (radial) diagram]

#### Lower back mount

![Lower back mount diagram]

<table>
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<th>Dimensions in mm</th>
<th>Weight in kg</th>
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Standard process connection with tapered thread ⅝ NPT, other process connections on request.

### Ordering information

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