Capsule pressure gauge, stainless steel
For the process industry, high overload safety
Model 632.51, NS 100 and 160

Applications
- Pressure measurement at very low pressures
- For gaseous, aggressive media, also in aggressive environments
- Robust design and ingress protection IP54, suitable for outdoor use

Special features
- High overload safety up to 50 x full scale value
- Measuring chamber protected against unauthorised intervention
- Low measuring error and influence on function from medium pollution

Description

Nominal size in mm
100, 160

Accuracy class
1.6

Scale ranges
0 ... 2.5 to 0 ... 100 mbar
or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation
Steady: Full scale value
Fluctuating: 0.9 x full scale value

Overload safety
50 x full scale value

Permissible temperature
Ambient: -20 ... +60 °C
Medium: +100 °C maximum

Temperature effect
When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. ±0.6 %/10 K of full scale value

Ingress protection per IEC/EN 60529
IP54

for further approvals see page 3
Standard version

Process connection (wetted)
Stainless steel 1.4571, lower mount, G ½ B (male), SW 22

Pressure element (wetted)
Stainless steel 1.4571

Measuring chamber (wetted)
Stainless steel 1.4571

Sealing (wetted)
PTFE

Movement
Stainless steel

Dial
Aluminium, white, black lettering

Pointer
Adjustable pointer, aluminium, black

Zero point setting
Turning of a slotted screw at the adjustable pointer

Case
Stainless steel, with blow-out device

Window
Laminated safety glass

Ring
Bayonet ring, stainless steel

Mounting by means of:
- Rigid measuring lines
- Instrument mounting bracket for wall or pipe mounting (option)
- Mounting flange (option)

Options
- Other process connection
- Sealings, see data sheet AC 09.08
- Instrument mounting bracket for wall or pipe mounting, see data sheet AC 09.07
- Panel or surface mounting flange (consider measuring chamber!)
- Indication accuracy class 0.6 or 1.0 ¹)
- Higher overload safety ¹)
- Capsule pressure gauge with switch contacts, see data sheet PV 26.06
- Capsule pressure gauge with output signal, see data sheet PV 16.06

¹) After feasibility test

Design and operating principle

- Pressure-sealed measuring chamber (1) with capsule measuring element
- The capsule element (2) is pressurised from outside and moves in strokes (deflection)
- The deflection is transmitted to the movement (3) and indicated
- The overload safety is achieved through the mutually supporting surfaces of both halves of the capsule element

Illustration of the principle
### Approvals

<table>
<thead>
<tr>
<th>Logo</th>
<th>Description</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Eu declaration of conformity" /></td>
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<td><img src="image" alt="ATEX directive" /></td>
<td>ATEX directive (option) Hazardous areas - Ex c Zone 1 gas [Ex II 2G c IIC TX X] Zone 21 dust [Ex II 2D c TX X]</td>
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<td>Eurasian Economic Community</td>
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<td>MTSCHS (option) Permission for commissioning</td>
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<td>BelGIM (option) Metrology, measurement technology</td>
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### Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

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>
<td>a</td>
<td>b</td>
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<tr>
<td>100</td>
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<tr>
<td>160</td>
<td>15.5</td>
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</table>

Process connection per EN 837-3/7.3

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