Gauge or absolute pressure
Internal diaphragm
Measuring range:
-1...0 to 0...16 bar
Temperature (medium):
max. 100°C
Accuracy class:
0.5 or 1.0
Material: stainless steel
Connection: G ¼ male
**Pressure Transducer** Model SEN-3247 / SEN-3249 / SEN-3272

**Description**
Industrial Heavy Duty Compact pressure sensors are leaders among the pressure transducers. Compact, rugged with longterm stability, they are particular suitable for applications in which the major requirements are small size, a G 1/4 pressure connection, light weight and the ability to withstand high mechanical loads. As a measuring element, a piezoresistive sensor is used. The material utilized renders these pressure sensors insensitive to chemically aggressive media.

**Dimensions**
SEN-3247..., SEN-3249... SEN-3272...

**Areas of application**
- Materials handling and lifting equipment
- Hydraulic systems
- Pneumatic systems
- General mechanical engineering

**Order Details Sensor** (Example: SEN-3247 B146)

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>Order no. Absolute pressure class 0.5 4-20 mA</th>
<th>Order no. Gauge pressure class 0.5 4-20 mA</th>
<th>Order no. Gauge pressure class 0.5 0-10 V&lt;sub&gt;dc&lt;/sub&gt;</th>
<th>Order no. Gauge pressure class 1.0 4-20 mA</th>
<th>Order no. Gauge pressure class 1.0 0-10 V&lt;sub&gt;dc&lt;/sub&gt;</th>
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<tbody>
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<td>-1 to 0 bar</td>
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<td>SEN-3249 C315</td>
<td>SEN-3249/1 C315</td>
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<tr>
<td>-0.6 to 0 bar</td>
<td>-</td>
<td>SEN-3249 C305</td>
<td>SEN-3249/1 C305</td>
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<tr>
<td>-0.4 to 0 bar</td>
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<tr>
<td>-0.25 to 0 bar</td>
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<td>SEN-3272 B146</td>
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<td>0 to 0.4 bar</td>
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<td>SEN-3249 B156</td>
<td>SEN-3249/1 B156</td>
<td>SEN-3272 B156</td>
<td>SEN-3272/1 B156</td>
</tr>
<tr>
<td>0 to 0.6 bar</td>
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<td>SEN-3249 B015</td>
<td>SEN-3249/1 B015</td>
<td>SEN-3272 B015</td>
<td>SEN-3272/1 B015</td>
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<tr>
<td>0 to 1 bar</td>
<td>SEN-3247 B025</td>
<td>SEN-3249 B025</td>
<td>SEN-3249/1 B025</td>
<td>SEN-3272 B025</td>
<td>SEN-3272/1 B025</td>
</tr>
<tr>
<td>0 to 1.6 bar</td>
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<td>SEN-3249/1 B035</td>
<td>SEN-3272 B035</td>
<td>SEN-3272/1 B035</td>
</tr>
<tr>
<td>0 to 2.5 bar</td>
<td>SEN-3247 B045</td>
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<td>SEN-3249/1 B045</td>
<td>SEN-3272 B045</td>
<td>SEN-3272/1 B045</td>
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<td>0 to 4 bar</td>
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<td>SEN-3249 B055</td>
<td>SEN-3249/1 B055</td>
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<td>SEN-3272/1 B055</td>
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<tr>
<td>0 to 6 bar</td>
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<td>SEN-3249 B065</td>
<td>SEN-3249/1 B065</td>
<td>SEN-3272 B065</td>
<td>SEN-3272/1 B065</td>
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<tr>
<td>0 to 10 bar</td>
<td>SEN-3247 B075</td>
<td>SEN-3249 B075</td>
<td>SEN-3249/1 B075</td>
<td>SEN-3272 B075</td>
<td>SEN-3272/1 B075</td>
</tr>
<tr>
<td>0 to 16 bar</td>
<td>SEN-3247 B085</td>
<td>SEN-3249 B085</td>
<td>SEN-3249/1 B085</td>
<td>SEN-3272 B085</td>
<td>SEN-3272/1 B085</td>
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</tbody>
</table>
Gauge pressure
Internal diaphragm
Measuring range: -1...0 to 0...16 bar
Temperature (medium): max. 100°C
Accuracy: ±0.25 or 0.5% (f.s.d.)
Material: stainless steel
Connection: G ½ male
Gauge pressure, internal diaphragm, class 0.25 or 0.5

Description
The Heavy Duty Industrial pressure transducers are the leaders among the pressure transducers. The thin-film technology of the sensor element fulfills the most demanding requirements.
Case and wetted parts are stainless steel. Therefore they are extremely resistant against aggressive process fluids. The sensor is unaffected by shock or vibration. Two adjustment potentiometers permits the use of these pressure transducers in most difficult applications like measurement of the hydrostatic column.

Technical data
- Technology: internal diaphragm
- Pressure type: gauge pressure
- Housing: stainless steel 1.4301
- Connection: G 1/2 male acc. to DIN 16288
- Wetted parts: stainless steel 1.4571 and 1.4542
- Sensor element: piezoresistive
- Max. Temperature:
  - Storage: -40...+100°C
  - Medium: -30...+100°C
  - Ambient: >20...+80°C
- Pressure limitation: ≤ 16 bar: 3.5x range vacuum.tight
- Accuracy: ±0.25 % or 0.5 % (f.s.d.)
- Repeatability: ≤ ± 0.05 % (f.s.d.)
- Stability (annual): ≤ ±0.2 % (f.s.d.) under reference conditions
- Power supply: 10...30 VDC (14...30 VDC for output 0 - 10 V)
- Output:
  - 4 - 20 mA, 0 - 5 VDC, 0 - 10 VDC
  - Load (Ω):
    - ≤ (Uref - 10 V)/0.02 A (for 4 - 20 mA)
    - > 5 kΩ for 0 - 5 V
    - >10 kΩ for 0 - 10 V
- Response time: ≤ 1 ms (within 10 - 90 % of full scale)
- Adjustability: Zero and span ±5 %
- Temp. comp. range: 0...+80°C
- Temperature drift: Zero and measuring ±0.2 %/10 K Zero for Measuring range 0...0.1 and 0...0.16 bar ±0.4 %/10 K
- Protection: IP 65

Applications
- Process engineering
- Hydraulic systems
- Industrial process engineering
- Development and laboratory
- Pneumatic systems

Order Details Sensor (Example: SEN-3276 C315)

<table>
<thead>
<tr>
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<td>SEN-3277/1 C315</td>
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<td>0 to 0.16 bar</td>
<td>SEN-3276 B126</td>
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<td>SEN-3276/ B146</td>
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<tr>
<td>0 to 0.4 bar</td>
<td>SEN-3276 B156</td>
<td>SEN-3276/ B156</td>
<td>SEN-3276/2 B156</td>
<td>SEN-3277 B156</td>
<td>SEN-3277/1 B156</td>
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<tr>
<td>0 to 0.6 bar</td>
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<td>SEN-3276/ B015</td>
<td>SEN-3276/2 B015</td>
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</tr>
<tr>
<td>0 to 1 bar</td>
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<td>SEN-3276/ B025</td>
<td>SEN-3276/2 B025</td>
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<tr>
<td>0 to 1.6 bar</td>
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<td>SEN-3276/ B035</td>
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<td>SEN-3277/1 B035</td>
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</tr>
<tr>
<td>0 to 2.5 bar</td>
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<td>SEN-3277 B045</td>
<td>SEN-3277/1 B045</td>
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<tr>
<td>0 to 4 bar</td>
<td>SEN-3276 B055</td>
<td>SEN-3276/ B055</td>
<td>SEN-3276/2 B055</td>
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<td>SEN-3277/1 B055</td>
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<td>0 to 6 bar</td>
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<td>0 to 10 bar</td>
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<td>0 to 16 bar</td>
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<td>SEN-3276/ B085</td>
<td>SEN-3276/2 B085</td>
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</tr>
</tbody>
</table>

More Measuring ranges see price list.
Pressure Transducer
Heavy Duty Industrial
Piezoresistive

- Absolute pressure
- Internally-fitted diaphragm
- Measuring range: 0...0.25 to 0...16 bar
- Temperature (medium): max. 100°C
- Accuracy class: 0.25 or 0.5
- Material: Stainless steel
- Connection: G ½ / G 1

Option:
Pluggable
Sandwich
Display
Model AUF
**Order Details Sensor (Example: SEN-3245 B015)**

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>Order no. Absolute pressure</th>
<th>Order no. Absolute pressure</th>
<th>Order no. Absolute pressure</th>
<th>Order no. Absolute pressure</th>
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<tbody>
<tr>
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<td>4 - 20 mA</td>
<td>0 - 10 V&lt;sub&gt;dc&lt;/sub&gt;</td>
<td>0.25</td>
<td>0 - 10 V&lt;sub&gt;dc&lt;/sub&gt;</td>
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<td>SEN-3248/2 B146</td>
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<tr>
<td>0 to 0.4 bar</td>
<td>SEN-3245 B156</td>
<td>SEN-3245/2 B156</td>
<td>SEN-3248 B156</td>
<td>SEN-3248/2 B156</td>
</tr>
<tr>
<td>0 to 0.6 bar</td>
<td>SEN-3245 B015</td>
<td>SEN-3245/2 B015</td>
<td>SEN-3248 B015</td>
<td>SEN-3248/2 B015</td>
</tr>
<tr>
<td>0 to 1.0 bar</td>
<td>SEN-3245 B025</td>
<td>SEN-3245/2 B025</td>
<td>SEN-3248 B025</td>
<td>SEN-3248/2 B025</td>
</tr>
<tr>
<td>0 to 1.6 bar</td>
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<td>SEN-3245/2 B035</td>
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<td>SEN-3248/2 B035</td>
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<td>0 to 2.5 bar</td>
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<td>SEN-3245/2 B045</td>
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<td>SEN-3248/2 B045</td>
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<td>SEN-3245/2 B055</td>
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<td>0 to 6.0 bar</td>
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</table>

**Technical Details**
- **Version:** internally-fitted diaphragm
- **Type of pressure:** absolute pressure
- **Housing:** stainless steel 1.4301
- **Connections:** G 1/2 external thread according to DIN 16288
- **Wetted parts:** stainless steel 1.4571 and 1.4542
- **Measuring element:** piezoresistive
- **Max. temperature:** storage: -40 to +100°C, measured medium: -30 to +100°C, environment: -20 to +80°C
- **Allowed excess pressure:** ≤ 16 bar: 3.5-fold vacuum tight
- **Accuracy class:** 0.25 or 0.5
- **Reproducibility:** ≤ ±0.05% f. s.
- **Stability per year:** ≤ ±0.2% f. s. (at reference conditions)
- **Electrical connection:** connector accord. to DIN 43 650
- **Auxiliary power:** 10...30 V<sub>dc</sub> (14...30 V<sub>dc</sub> for 0 - 10 V output)
- **Output:** 4 - 20 mA, 0 - 10 V<sub>dc</sub>
- **Load (Ω):** ≤ (U<sub>dc</sub> - 10 V)/0.02 A (at 4 - 20 mA) > 1 kΩ at 0 - 10 V
- **Response time:** ≤ 1 ms (within 10 - 90% f. s.)
- **Variability:** zero-point and span up to ±5%
- **Compensated range:** 0 to +80°C
- **Temperature effect:** on zero-point and span ±0.2%/10 K
- **Protection:** IP 65