These high temperature conductivity sensors have a stainless steel body and a ceramic insulation, especially designed to withstand high temperatures and pressures. A special treatment of the electrodes ensures optimal resistance against polarisation.

The conductivity cells have extremely high temperature and pressure ratings: the threaded types can handle 40 bar at 200°C and the flanged types can handle 30 to 40 bar at 250°C depending on flange.

The combination of the sensor plug and cable is watertight and can handle temperatures up to 100°C. The aluminium connection box of the flanged types has been selected to have an easy connection with high temperature cabling.

Features
- High temperature and pressure ratings
- Built-in temperature resistor: Pt1000
- High precision of the cell constant
- Fast temperature response
- Plug and cable form a water tight connection to IP65
- Model with flange has an integral connection box
- Threaded models have standardized connections 1” NPT or R1
- Selection of two cell constant 0.1 or 0.01 cm⁻¹
Specifications

General Specifications

Materials
Wetted parts
- Body: stainless steel AISI 316
- Insulation: ceramic (aluminium oxide)
- Electrodes: stainless steel AISI 316
- Lance: stainless steel AISI 316

Electrical connector: PBT reinforced with glass for threaded models or aluminium terminal box for flanged models

Process connections
- Screw-in: R 1 to ISO 7-1 or 1” NPT male
- Flange: Flange to DIN2527 Form E DN50 PN64
Flange to ANSI B16.5 2” 600 lbs

Shipping weight:
- Model SX24-BS or NS: approx. 0.5 kg
- Model SX34-BS or NS: approx. 0.7 kg
- Model SX24-DF, or AF: approx. 5.7 kg
- Model SX34-DF, or AF: approx. 6.0 kg

Shipping dimensions
- Threaded models: approx. 27 x 5 x 5 cm
- Flanged models: approx. 40 x 20 x 20 cm

Technical specifications
Temperature range:
- Threaded models: up to 200°C (see figure 1)
- Flanged models: up to 250°C (see figure 1)
Pressure range:
- Threaded models: up to 25 bar (2.5 MPa) (see figure 1)
- Flanged models: up to 40 bar (4.0 MPa)
Temperature sensor: Pt1000 to IEC 751
Cell constant:
- SX42-SX24: 0.1 cm⁻¹
- SX42-SX34: 0.01 cm⁻¹
Measuring principle: 2 electrodes system

Model and Suffix Codes

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Suffix Code</th>
<th>Option Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SX42</td>
<td>-SX24</td>
<td></td>
<td>High temperature conductivity sensor with Pt1000 sensor</td>
</tr>
<tr>
<td>Cell constant</td>
<td>-SX34</td>
<td></td>
<td>calconstante 0.1/cm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process connection</th>
<th>Style code</th>
<th>Certificates</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-BS</td>
<td>T</td>
<td>M</td>
<td>ISO 7/1-R1 screw thread</td>
</tr>
<tr>
<td>-NS</td>
<td></td>
<td></td>
<td>1-11½ NPT screw thread</td>
</tr>
<tr>
<td>-DF</td>
<td></td>
<td></td>
<td>DN50-PN63 EN flange</td>
</tr>
<tr>
<td>-EF</td>
<td></td>
<td></td>
<td>DN50-PN40 EN flange</td>
</tr>
<tr>
<td>-AF</td>
<td></td>
<td></td>
<td>2” 600 LBS ANSI flange</td>
</tr>
</tbody>
</table>

Certificates: M 3.1 material certificate (Always automatically delivered, see QIC)

Figure 1. Pressure and temperature diagram

Figure 2. Wiring diagram threaded models

Figure 3. Wiring diagram flanged models
Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>D</th>
<th>g</th>
<th>k</th>
<th>l</th>
<th>h</th>
<th>Number of holes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN50 PN40</td>
<td>135</td>
<td>5.3</td>
<td>125</td>
<td>4.9</td>
<td>18</td>
<td>20 0.79 4</td>
</tr>
<tr>
<td>DN50 PN64</td>
<td>180</td>
<td>7.1</td>
<td>102</td>
<td>4</td>
<td>135</td>
<td>5.3 22 0.87 26 1.02 4</td>
</tr>
<tr>
<td>2” 600Lbs</td>
<td>165</td>
<td>6.5</td>
<td>91.9</td>
<td>3.62</td>
<td>127</td>
<td>5   19.1 0.75 31.8 1.25 8</td>
</tr>
</tbody>
</table>

Figure 4. Dimensions Flanged & Threaded models

Figure 5. Flanges
Figure 6. Sensor range