**Product characteristics**

<table>
<thead>
<tr>
<th>Number of inputs and outputs</th>
<th>Number of analog outputs: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process connection</td>
<td>G 1 external thread Aseptoflex Vario</td>
</tr>
</tbody>
</table>

**Application**

<table>
<thead>
<tr>
<th>System</th>
<th>gold-plated contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>Conductive liquids</td>
</tr>
<tr>
<td>Note on media</td>
<td>water</td>
</tr>
<tr>
<td></td>
<td>milk</td>
</tr>
<tr>
<td></td>
<td>CIP liquids</td>
</tr>
<tr>
<td>Cannot be used for</td>
<td>See the operating instructions, chapter “Function and features”.</td>
</tr>
</tbody>
</table>

| Medium temperature [°C]       | -25...100; (< 1 h: 150) |
| Pressure rating [bar]         | 16                      |
| Vacuum resistance [mbar]      | -1000                   |

**Electrical data**

| Operating voltage [V]         | 18...30 DC               |
| Current consumption [mA]      | < 100                    |
| Protection class              | III                      |
| Reverse polarity protection   | yes                      |
| Power-on delay time [s]       | 2                        |

**Inputs / outputs**

| Number of inputs and outputs | Number of analog outputs: 1 |
# LDL200

## Inductive conductivity sensor

**IND CONDUCTIVITY HYG ASF-V**

### Outputs

<table>
<thead>
<tr>
<th>Total number of outputs</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output signal</td>
<td>analog signal; IO-Link</td>
</tr>
<tr>
<td>Output function</td>
<td>analog output; scalable; selectable conductivity / temperature</td>
</tr>
<tr>
<td>Number of analog outputs</td>
<td>1</td>
</tr>
<tr>
<td>Analog current output</td>
<td>[mA]</td>
</tr>
<tr>
<td>Max. load</td>
<td>[Ω]</td>
</tr>
<tr>
<td></td>
<td>4...20</td>
</tr>
<tr>
<td></td>
<td>500</td>
</tr>
</tbody>
</table>

### Measuring/setting range

#### Conductivity measurement

<table>
<thead>
<tr>
<th>Measuring range [µS/cm]</th>
<th>100...1000000</th>
</tr>
</thead>
</table>

#### Temperature measurement

<table>
<thead>
<tr>
<th>Measuring range [°C]</th>
<th>-25...150</th>
</tr>
</thead>
</table>

### Accuracy / deviations

#### Conductivity measurement

<table>
<thead>
<tr>
<th>Accuracy (in the measuring range)</th>
<th>2 % MW ± 25 µS/cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution [µS/cm]</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(0...10000)</td>
</tr>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(10000...100000)</td>
</tr>
<tr>
<td></td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>(100000...1000000)</td>
</tr>
<tr>
<td>Drift [%/K]</td>
<td>0,1 %/K MW ± 25 µS/cm</td>
</tr>
<tr>
<td>Repeatability [µS/cm]</td>
<td>1 % MW ± 25 µS/cm</td>
</tr>
<tr>
<td>Long-term stability</td>
<td>0,5 % MW ± 25 µS/cm</td>
</tr>
</tbody>
</table>

#### Temperature measurement

<table>
<thead>
<tr>
<th>Accuracy [K]</th>
<th>20...50 °C: &lt; ± 0,2 K; -25...150 °C: &lt; ± 1,5 K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeatability [K]</td>
<td>0,2</td>
</tr>
<tr>
<td>Resolution [K]</td>
<td>0,1</td>
</tr>
</tbody>
</table>

### Reaction times

#### Conductivity measurement

<table>
<thead>
<tr>
<th>Response time [s]</th>
<th>&lt; 2; (T09; Damping = 0)</th>
</tr>
</thead>
</table>

#### Temperature measurement

<table>
<thead>
<tr>
<th>Response time [s]</th>
<th>&lt; 40; (T09)</th>
</tr>
</thead>
</table>

### Interfaces

<table>
<thead>
<tr>
<th>Communication interface</th>
<th>IO-Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission type</td>
<td>COM2 (38,4 kBaud)</td>
</tr>
<tr>
<td>IO-Link revision</td>
<td>1.1</td>
</tr>
<tr>
<td>SDCI standard</td>
<td>IEC 61131-9</td>
</tr>
<tr>
<td>IO-Link device ID</td>
<td>0x00039A / 922</td>
</tr>
<tr>
<td>Profiles</td>
<td>Measuring Sensor, Identification and Diagnosis</td>
</tr>
<tr>
<td>SIO mode</td>
<td>no</td>
</tr>
<tr>
<td>Required master port class</td>
<td>A</td>
</tr>
<tr>
<td>Process data analogue</td>
<td>1</td>
</tr>
<tr>
<td>Min. process cycle time [ms]</td>
<td>5.6</td>
</tr>
</tbody>
</table>
## LDL200

**Inductive conductivity sensor**

**IND CONDUCTIVITY HYG ASF-V**

<table>
<thead>
<tr>
<th>Operating conditions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>°C</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tests / approvals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td>DIN EN 61000-6-2</td>
</tr>
<tr>
<td></td>
<td>DIN EN 61000-6-3</td>
</tr>
<tr>
<td>Shock resistance</td>
<td>DIN EN 60068-2-27</td>
</tr>
<tr>
<td>Vibration resistance</td>
<td>DIN EN 60068-2-6</td>
</tr>
<tr>
<td>MTTF</td>
<td>[years] 129</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>[g]</td>
</tr>
<tr>
<td>Material</td>
<td></td>
</tr>
<tr>
<td>Materials (wetted parts)</td>
<td></td>
</tr>
<tr>
<td>Process connection</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remarks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pack quantity</td>
<td>1 pcs.</td>
</tr>
</tbody>
</table>

**Electrical connection**

Connector: 1 x M12 (EN 61067-2-101); Contacts: gold-plated
**Connection**

<table>
<thead>
<tr>
<th>OUT1</th>
<th>IO-Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT2</td>
<td>analog output</td>
</tr>
</tbody>
</table>

Colours to DIN EN 60947-5-2

Core colors:

- **BK** = black
- **BN** = brown
- **BU** = blue
- **WH** = white