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1 Process connections, dimensions and weights of sensor

Fig. 1: Dimensions in mm

Tab. 1: Dimensions without length L1

<table>
<thead>
<tr>
<th>Meter size</th>
<th>L2</th>
<th>L3</th>
<th>H1</th>
<th>H3</th>
<th>H4</th>
<th>H5</th>
<th>W1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in mm (inch)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hygienic 25</td>
<td>190</td>
<td>165</td>
<td>117</td>
<td>268</td>
<td>56</td>
<td>138</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>(7.5)</td>
<td>(6.5)</td>
<td>(4.6)</td>
<td>(10.6)</td>
<td>(2.2)</td>
<td>(5.4)</td>
<td>(1.7)</td>
</tr>
<tr>
<td>Hygienic 40</td>
<td>227</td>
<td>195</td>
<td>145</td>
<td>277</td>
<td>71</td>
<td>148</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>(8.9)</td>
<td>(7.7)</td>
<td>(5.7)</td>
<td>(10.9)</td>
<td>(2.8)</td>
<td>(5.8)</td>
<td>(2)</td>
</tr>
<tr>
<td>Hygienic 50</td>
<td>361</td>
<td>310</td>
<td>245</td>
<td>289</td>
<td>90</td>
<td>159</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>(14.2)</td>
<td>(12.2)</td>
<td>(9.6)</td>
<td>(11.4)</td>
<td>(3.5)</td>
<td>(6.3)</td>
<td>(2.8)</td>
</tr>
<tr>
<td>Hygienic 80</td>
<td>455</td>
<td>400</td>
<td>333</td>
<td>296</td>
<td>102</td>
<td>167</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>(17.9)</td>
<td>(15.7)</td>
<td>(13.1)</td>
<td>(11.7)</td>
<td>(4)</td>
<td>(6.6)</td>
<td>(3.8)</td>
</tr>
</tbody>
</table>

Overall length L1 and weight

The overall length of the sensor depends on the selected process connection (type and size). The following tables list the overall length and weight as functions of the individual process connection.

The weights in the tables are for the remote type. Additional weight for the integral type: 3.5 kg (7.7 lb).
Hygienic
Process connections, dimensions and weights of sensor

### Threaded connection suitable for DIN 11851

<table>
<thead>
<tr>
<th>Process connections</th>
<th>Model code pos.</th>
<th>Hygienic 25</th>
<th>Hygienic 40</th>
<th>Hygienic 50</th>
<th>Hygienic 80</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIN 11851 DN25</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>280 (11)</td>
<td>5.4 (12)</td>
<td>320 (12.6)</td>
<td>7.4 (16)</td>
</tr>
<tr>
<td>DIN 11851 DN40</td>
<td>40</td>
<td>HS2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>290 (11.4)</td>
<td>5.5 (12)</td>
<td>330 (13)</td>
<td>7.5 (17)</td>
</tr>
<tr>
<td>DIN 11851 DN50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIN 11851 DN65</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIN 11851 DN80</td>
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<td></td>
<td></td>
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<td>–</td>
<td>–</td>
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</tr>
</tbody>
</table>

Meaning of "–": not available

### Clamp process connections according to DIN 32676 series A

<table>
<thead>
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<th>Process connections</th>
<th>Model code pos.</th>
<th>Hygienic 25</th>
<th>Hygienic 40</th>
<th>Hygienic 50</th>
<th>Hygienic 80</th>
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</thead>
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<td>6</td>
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<tr>
<td>DIN 32676 series A DN25</td>
<td>25</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>280 (11)</td>
<td>5.2 (11)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>DIN 32676 series A DN40</td>
<td>40</td>
<td>HS4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>280 (11)</td>
<td>5.2 (11)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>DIN 32676 series A DN50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
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<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>DIN 32676 series A DN65</td>
<td>65</td>
<td></td>
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<td></td>
<td></td>
<td>–</td>
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<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIN 32676 series A DN80</td>
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</table>

Meaning of "–": not available
### Clamp process connections according to DIN 32676 series C (Tri-Clamp)

Tab. 4: Overall length L1 and weight of sensor (process connections: DIN 32676 series C Tri-Clamp)

<table>
<thead>
<tr>
<th>Process connections</th>
<th>Model code pos.</th>
<th>Hygienic 25</th>
<th>Hygienic 40</th>
<th>Hygienic 50</th>
<th>Hygienic 80</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIN 32676 series C 1&quot;</td>
<td>25</td>
<td>280 (11)</td>
<td>5.2 (12)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>DIN 32676 series C 1½&quot;</td>
<td>40</td>
<td>280 (11)</td>
<td>5.2 (11)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>DIN 32676 series C 2&quot;</td>
<td>50</td>
<td>HS8</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIN 32676 series C 2½&quot;</td>
<td>65</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DIN 32676 series C 3&quot;</td>
<td>80</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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</table>

Meaning of "–": not available

### Clamp process connection according to JIS/ISO 2852

Tab. 5: Overall length L1 and weight of sensor (process connections: JIS/ISO 2852 clamp)

<table>
<thead>
<tr>
<th>Process connections</th>
<th>Model code pos.</th>
<th>Hygienic 25</th>
<th>Hygienic 40</th>
<th>Hygienic 50</th>
<th>Hygienic 80</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JIS/ISO 2852 1&quot;</td>
<td>25</td>
<td>280 (11)</td>
<td>5.2 (12)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>JIS/ISO 2852 1½&quot;</td>
<td>40</td>
<td>280 (11)</td>
<td>5.2 (11)</td>
<td>320 (12.6)</td>
<td>7.2 (16)</td>
</tr>
<tr>
<td>JIS/ISO 2852 2&quot;</td>
<td>50</td>
<td>HS9</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>JIS/ISO 2852 2½&quot;</td>
<td>65</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>JIS/ISO 2852 3&quot;</td>
<td>80</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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</tbody>
</table>

Meaning of "–": not available
2 Transmitter dimensions and weights

Transmitter dimensions

**Fig. 2:** Dimensions of transmitter in mm (left: transmitter with display, right: transmitter without display)

**Tab. 6:** Overall length L1 - L4 and height H1 - H4 of transmitter (material: stainless steel, aluminum)

<table>
<thead>
<tr>
<th>Material</th>
<th>L1 in mm (inch)</th>
<th>L2 in mm (inch)</th>
<th>L3 in mm (inch)</th>
<th>L4 in mm (inch)</th>
<th>H1 in mm (inch)</th>
<th>H2 in mm (inch)</th>
<th>H3 in mm (inch)</th>
<th>H4 in mm (inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel</td>
<td>265.5 (10.06)</td>
<td>110.5 (4.35)</td>
<td>69 (2.72)</td>
<td>235 (9.25)</td>
<td>201 (7.91)</td>
<td>184 (7.24)</td>
<td>24 (0.94)</td>
<td>150.5 (5.93)</td>
</tr>
<tr>
<td>Aluminum</td>
<td>241.5 (9.51)</td>
<td>96.5 (3.8)</td>
<td>70 (2.76)</td>
<td>221 (8.7)</td>
<td>192 (7.56)</td>
<td>175 (6.89)</td>
<td>23 (0.91)</td>
<td>140 (5.51)</td>
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</tbody>
</table>

**Fig. 3:** Dimensions of transmitter in mm, attached to mounting bracket.
## Transmitter weights

<table>
<thead>
<tr>
<th>Model code (pos. 10)</th>
<th>Design type</th>
<th>Housing material of transmitter</th>
<th>Weight in kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, E</td>
<td>Remote</td>
<td>Aluminum</td>
<td>4.2 (9.3)</td>
</tr>
<tr>
<td>J</td>
<td>Remote</td>
<td>Stainless steel</td>
<td>12.5 (27.6)</td>
</tr>
</tbody>
</table>

![Diagram showing transmitter dimensions and weights]
3 Wiring

3.1 Terminal configuration diagrams

3.1.1 Terminal for connection between sensor and transmitter

![Terminal configuration diagram for sensor and transmitter](image)

Fig. 4: Connection terminal circuits (transmitter on the left side, sensor on the right side)

1. Driver circuit (D+/D-)
2. Sensor circuits (S1+/S1-, S2+/S2-)
3. Temperature measurement circuit (TP1, TP2, TP3)
4. Signal grounding
5. Transmitter
6. Sensor

3.1.2 Terminal for I/O outputs and power supply

![Terminal configuration diagram for I/O outputs and power supply](image)

Fig. 5: Terminal for I/O outputs and power supply in transmitter

1. Power supply connection terminals
2. Grounding screw for connecting grounding conductor
3. Grounding terminal for potential equalization
4. Locking screw
5. Connection terminals for I/O1 +/-
6. Connection terminals for I/O2 +/-
7. Connection terminals for I/O3 +/-
8. Connection terminals for I/O4 +/-
9. WP: Write-protection terminal
4 Connecting cable dimensions and weights

4.1 Standard cable (option L...

![Diagram of standard cable dimensions and weights]

Fig. 6: Dimensions of standard cable (option L...), terminated in mm and labelling

<table>
<thead>
<tr>
<th>Label number</th>
<th>Label name</th>
<th>Installation status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CONVERTER/TRANSMITTER</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>DETECTOR/SENSOR</td>
<td>Factory labeled</td>
</tr>
<tr>
<td>C</td>
<td>RCCY03</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Length of connecting cable in m (ft)</th>
<th>Colour of connecting cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>L000</td>
<td>Length specified in separate order</td>
<td>std. gray / Ex blue</td>
</tr>
<tr>
<td>L005</td>
<td>5 m (16.4 ft)</td>
<td></td>
</tr>
<tr>
<td>L010</td>
<td>10 m (32.8 ft)</td>
<td></td>
</tr>
<tr>
<td>L015</td>
<td>15 m (49.2 ft)</td>
<td></td>
</tr>
<tr>
<td>L020</td>
<td>20 m (65.6 ft)</td>
<td></td>
</tr>
<tr>
<td>L030</td>
<td>30 m (98.4 ft)</td>
<td></td>
</tr>
</tbody>
</table>

- Weight of cable ≤ 0.200 kg/m (0.134 lb/ft)
4.2 Fire retardant cable (option Y\textsubscript{\ldots})

![Diagram of fire retardant cable](image)

**Fig. 7**: Dimensions of fire retardant cable (option Y\textsubscript{\ldots}), not terminated in mm and labelling

<table>
<thead>
<tr>
<th>Label number</th>
<th>Label name</th>
<th>Installation status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>CONVERTER/TRANSMITTER</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>DETECTOR/SENSOR</td>
<td>Separately enclosed</td>
</tr>
<tr>
<td>C</td>
<td>RCCY03</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Installation of label A/B/C: Label A/B/C is included in termination kit. Install the label inside an appropriate cable area near the mounted cable gland.

<table>
<thead>
<tr>
<th>Options</th>
<th>Length of connecting cable in m (ft)</th>
<th>Colour of connecting cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y000</td>
<td>Length specified in separate order</td>
<td></td>
</tr>
<tr>
<td>Y005</td>
<td>5 m (16.4 ft)</td>
<td>std. / Ex gray</td>
</tr>
<tr>
<td>Y010</td>
<td>10 m (32.8 ft)</td>
<td></td>
</tr>
<tr>
<td>Y015</td>
<td>15 m (49.2 ft)</td>
<td></td>
</tr>
<tr>
<td>Y020</td>
<td>20 m (65.6 ft)</td>
<td></td>
</tr>
<tr>
<td>Y030</td>
<td>30 m (98.4 ft)</td>
<td></td>
</tr>
</tbody>
</table>

- Weight of cable \(\leq 0.270 \text{ kg/m} (0.181 \text{ lb/ft})\)
5 Japan Ex cable gland dimensions (option V5\_)

Fig. 8: Dimensions of cable gland (option V5\_), in mm (inch)

<table>
<thead>
<tr>
<th>Dimensions of rubber packing (before compression)</th>
<th>Identification mark of rubber packing</th>
<th>Cable outer diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Ø D</td>
<td>Ø d</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>20 (0.79)</td>
<td>Ø 20 (0.79)</td>
<td>Ø 10 (0.39)</td>
</tr>
<tr>
<td>20 (0.79)</td>
<td>Ø 20 (0.79)</td>
<td>Ø 12 (0.47)</td>
</tr>
</tbody>
</table>
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