FEATURES

- Zirconium dioxide (ZrO₂) sensing elements
- Long life, non-depleting technology
- Integral heating element
- High accuracy
- Requires an external interface board to operate¹

OUTPUT VALUES

- Oxygen pressure range: 2mbar—3bar max
- Accuracy: 5mbar max
- Internal operational temp: 700°C
- Response time (10—90% step): < 4s
- Warm up time (prior to sensor operation): 60s
- Warm up time (from standby): 20s
- Output stabilisation time: ~ 180s

OTHER SENSOR OPTIONS AVAILABLE ON REQUEST, EMAIL: technical@sstsensing.com

NOTES

¹ Interface board sold separately; contact technical@sstsensing.com for details.
² It is important to measure the heater voltage as close to the sensor as possible due to voltage drops in the supply cable.
³ The constant current source used in the pump circuit should be designed to drive a load of up to 6kΩ.
**OUTLINE DRAWING**

All dimensions shown in mm.

**ELECTRICAL INTERFACE**

<table>
<thead>
<tr>
<th>Wire</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Pump</td>
</tr>
<tr>
<td>C</td>
<td>Common</td>
</tr>
<tr>
<td>H</td>
<td>Heater</td>
</tr>
<tr>
<td>S</td>
<td>Sense</td>
</tr>
<tr>
<td>F</td>
<td>Heater connection on flange (ground)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Sensor pins must NOT be soldered. Connections should be crimped onto the pins.
2. Ø4.1mm mounting holes should be used as second heater connection (on 4-pin product only) and should be grounded.

**ORDER INFORMATION**

Generate your specific part number using the convention shown below. Use only those letters and numbers that correspond to the sensor options you require — omit those you do not.

```
O2S-FR-T4-XP
```

**Termination**

<table>
<thead>
<tr>
<th>4</th>
<th>4-pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5-pin</td>
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</tbody>
</table>

**General Note:** SST Sensing Ltd. reserves the right to make changes to product specifications without notice or liability. All information is subject to SST Sensing Ltd.’s own data and considered accurate at time of going to print.

**INFORMATION**

As customer applications are outside of SST Sensing Ltd.’s control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the equipment is suitable for their intended application.

For detailed information on the sensor operation refer to application note AN0043 Operating Principle and Construction of Zirconium Dioxide Oxygen Sensors.

For technical assistance or advice, please email: technical@sstsensing.com

**CAUTION**

Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements. Incorrect wiring can cause permanent damage to the device.

Zirconium dioxide sensors are damaged by the presence of silicone. Vapours (organic silicone compounds) from RTV rubbers and sealants are known to poison oxygen sensors and MUST be avoided. Do NOT use chemical cleaning agents.

Failure to comply with these instructions may result in product damage.