

Data Sheet

Zirconia O₂ Sensors
Probe Series- Short Housing

Characteristic

- . Zirconia (ZrO₂) sensing element
- . Long life, non-consumable technology
- . Integrated heating element
- . High precision
- . External interface board is required to run ¹



<p>response time</p> <p>< 4 secs</p> <p>< 15 secs</p>	<p>heater voltage</p> <p>4.35 V VOLTAGE</p> <p>4 V VOLTAGE</p>	<p>Gas temperature</p> <p>-100°C to +250°C TEMPERATURE</p>	<p>terminal</p> <p>0.15m CABLE</p> <p>0.3m CABLE</p> <p>1.1m CABLE</p>
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merit

- . No reference gas is required .
- . No temperature stability required
- . Compact housing

technical specifications

Heater voltage ²	
Work (standard response) standby	4V _{DC} ± 0.1V _{DC} (1.7A) 1.65V _{DC} (0.7A)
Work (quick response)	4.35V _{DC} ± 0.1V _{DC} (1.85A)
Pump impedance	2V _{DC} (0.85A)
at standby 700°C al ⁻³	< 6kΩ
low gas temperature	-100°C ~ +250°C
gas flow rate	0—10 m/s
Repetition allows acceleration accidental allows acceleration	5g 30g

output value

Accuracy of oxygen pressure range	2mbar—3bar max
Internal operating temperature	5mbar max 700°C
Response time (10-90% step) standard response sensor	< 15s
Quick response sensor	< 4s
warm-up time (sensor running before)	60s
warm-up time (standby wake up)	20s
output stability time	~ 180s

Additional sensor options may be provided upon request. Please email us at:

technical@sstsensing.com

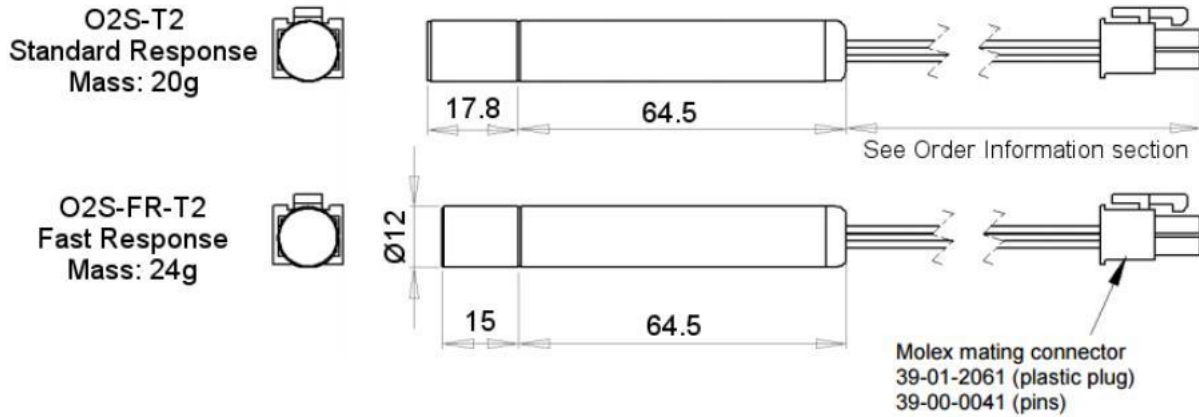
**Need help? Call + for expert advice
44 (0) 1236 459 020 and Seek
Technical assistance**



1) The interface board is sold separately; please contact technical@sstsensing.com for details.
2) Due to the voltage drop in the power cable, it is necessary to measure the heating voltage as close as possible to the sensor. The constant current source used in the pump circuit should be designed to drive loads up to 6kΩ.
3)

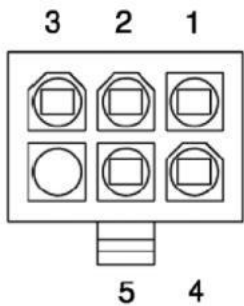
Shape drawings

All dimensions are in mm.



Electrical interface

Molex connectors



Pin	definition
1	Pump (red)
2	Public (black)
3	heater (1) (yellow)
4	Sensing (blue)
5	Heater (2) (yellow)

Order information

Use the following model definition rules to generate your specified model. Use only the letters and numbers that correspond to the sensors and output options you need—ignore the letters and numbers you don't need.

O 2 S - X X - T 2 - X X X

Response Time	Terminal
Blank normal response < 15s	Blank 0.15m cable
FR quick response < 4s	002 0.3m cable
	003 1.1m cable

CAUTION

Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements. Carefully follow all wiring instructions. 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.

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 AN 0043 Operating Principle and Construction of Zirconium Dioxide Oxygen Sensors.

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

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.



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