SST
DESIGN • MANUFACTURE • CUSTOMISE • CONFIGURE

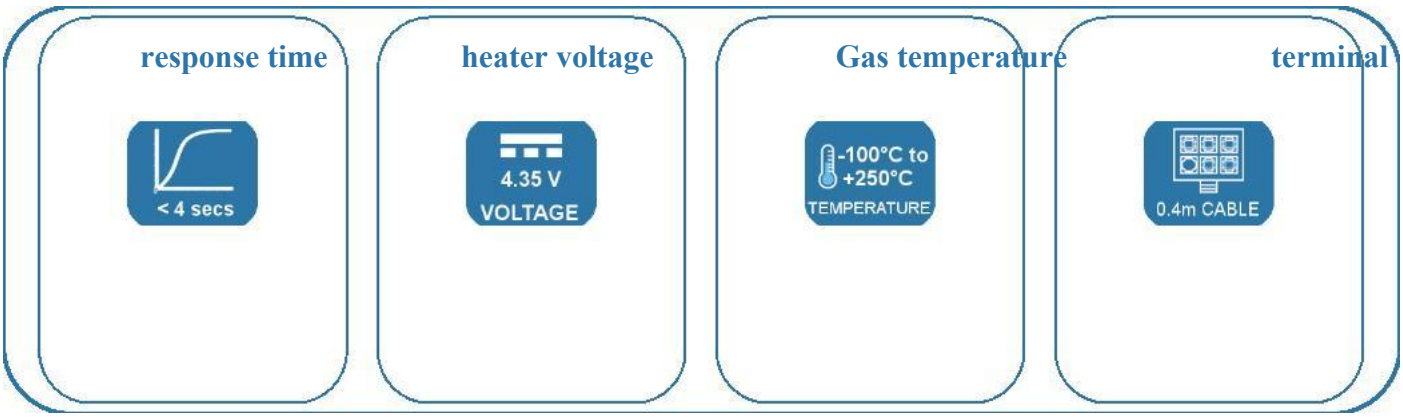
Data Sheet

Zirconia O_2 Sensors

Flange Installation Series -O2S-FR T5

characteristic

- Zirconia (ZrO_2) sensing element
- Long life, non-consumable technology
- Integrated heating element
- high-accuracy
- Need external interface board to run [a]



merit

- No reference gas is required
- No temperature stability required
- Flange installation

technical specifications

Heater voltage [b] operation	4.35V_{DC} ± 0.1V_{DC} (1.85A)
standby	2V_{DC} (0.85A)
Pump impedance at [c] 700°C allowable gas temperature gas flow rate	< 6kΩ
	-100°C ~ +250°C
	0—10 m/s
Repeat to allow acceleration and allow acceleration terminals	5g
	30g
	0.4m cable, with Molex connector

output value

Oxygen pressure range	2mbar—3bar max.
accuracy	5mbar max.
Internal operating temperature	700°C
Response time (10-90% step)	< 4s
Preheat time (before sensor operation) Preheat time (standby wake up) Output stability time	100s
	20s ~
	180s

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

technical@sstsensing.com

Need help? Call + 44 (0) 1236 459 020 and seek "technical" assistance

annotate

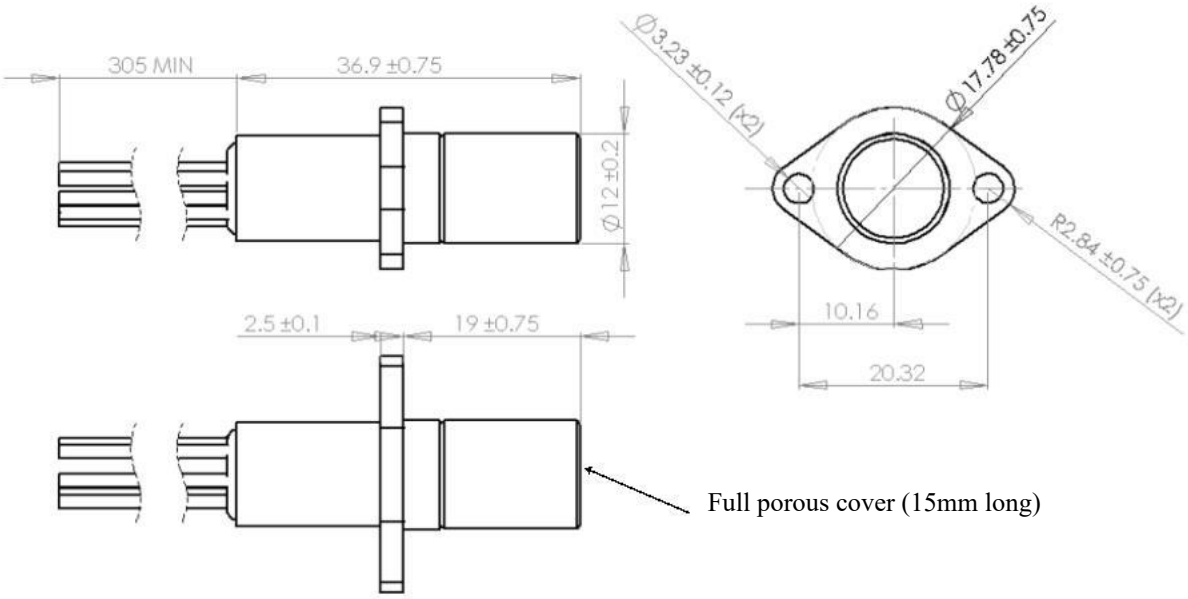
a) The interface board is sold separately; please contact technical@sstsensing.com for details.

b) Due to the voltage drop in the power cable, the heating voltage must be measured as close as possible to the sensor. The heater can also operate with an equivalent AC or PWM signal.

c) The constant current source used in the pump circuit should be designed to drive loads up to 6k**Ω**.

outside drawing

All dimensions are in mm.



Electrical interface

lead	definition
1： red	pump
2： black	Public
3： yellow	heater (1)
4： blue	Sensing
5： yellow	heater (2)

Order information

Please specify the following model when ordering.

O 2 S - F R - T 5

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

RoHS

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