Data Sheet

SST
DESIGN • MANUFACTURE • CUSTOMISE • CONFIGURE

Zirconia O 2 Sensors

Micro-Series

Characteristic

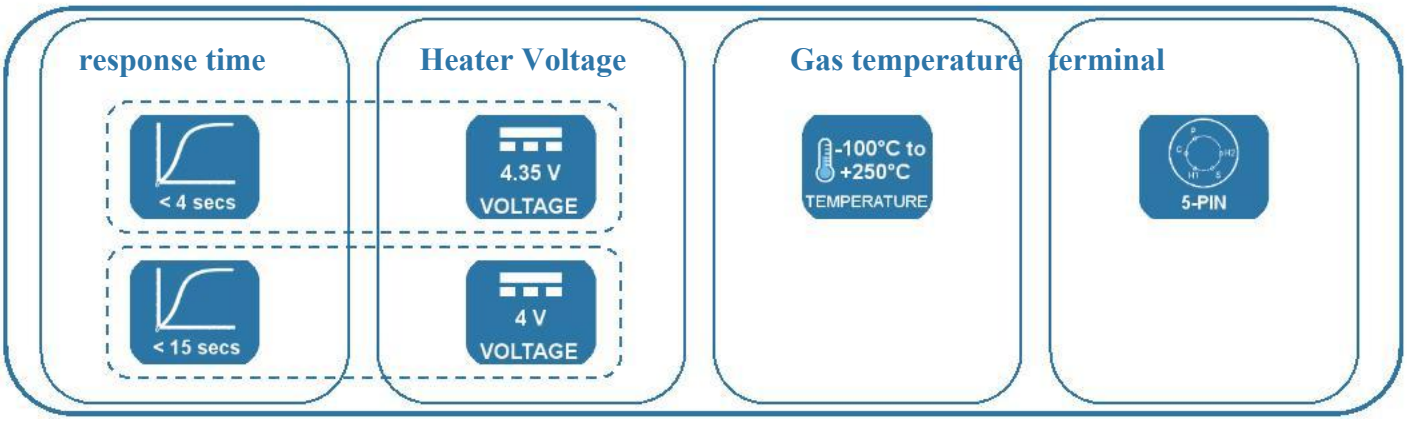
. Zirconia (ZrO_2) sensing element

. Long life, non-consumable technology

. Integrated heating element

. High precision

. External interface board is required to run [1]



merit

No reference gas is required .

No temperature stability required

PCB installation

technical specifications

Heater voltage [2]	
Standby of standard response sensor	$4V_{DC} \pm 0.1V_{DC}$ (1.7A)
	$1.65V_{DC}$ (0.7A)
Quick response sensor standby	$4.35V_{DC} \pm 0.1V_{DC}$ (1.85A)
	$2V_{DC}$ (0.85A)
Pump impedance at 700° C [3] allows gas temperature gas flow rate	< 6kΩ
	-100°C ~ +250°C
	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 max700°C
Response time (10-90% step)	
Standard responsive sensor	<15s
Quick response sensor warm-up time (before sensor operation)	< 4s
	60s
Preheat time (standby wake up) output stability time	20s
	~ 180s

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

technical@sstsensing.com

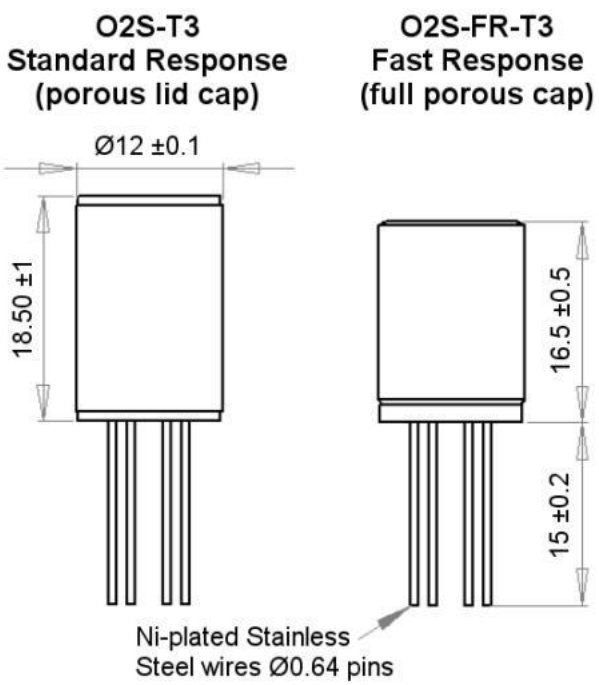
Need help? Call + for expert advice
44 (0) 1236 459 020 and Seek
Technical assistance

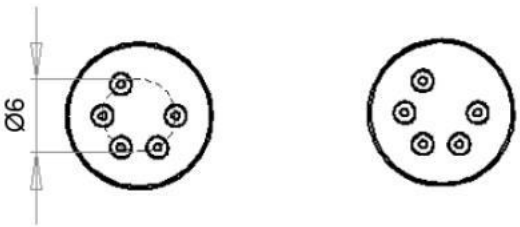
annotate

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)

outside drawing

All dimensions are in mm. Tolerance = ±1mm.

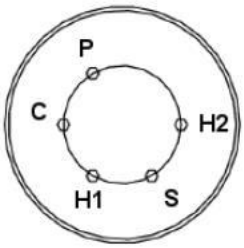




Mass: 5g

Mass: 7g

Electrical interface



lead	definition
P	pump
C	public
H1	Heater (1)
S	sense
H2	Heater (2)

Note: Do not weld the sensor pins. The connection should be crimped on the pins.

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 3

Response Time
Blank normal response < 15s
FR quick response < 4s

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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