

Oxygen Probe Reader

AOS 02TA 2200

Australian Oxytrol Systems Pty Ltd

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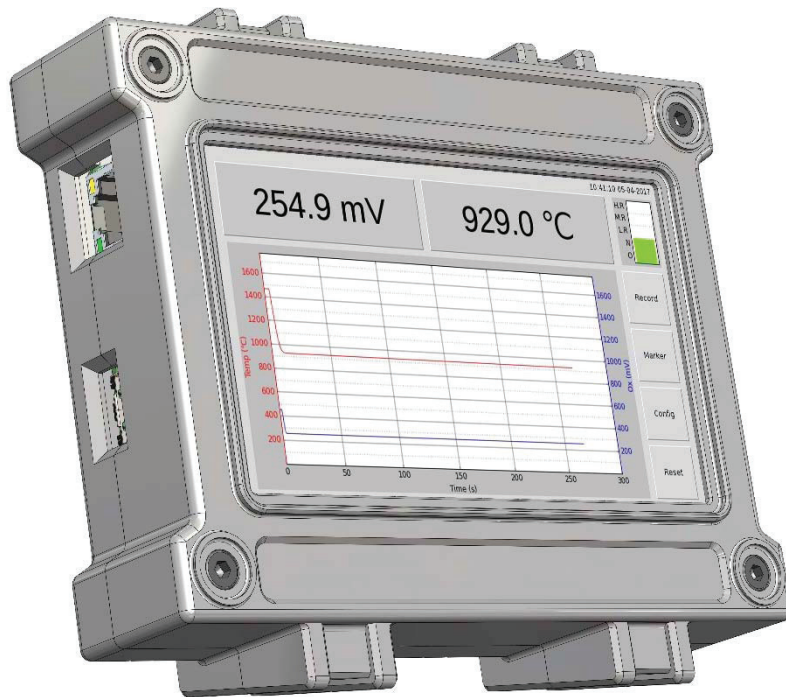
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AOS O2TA 2200 Technical Specification



Description

The Oxygen Probe Reader (AOS O2TA 2200) is a device that enables you to receive readings from any of the Australian Oxytrol Systems' Oxygen Probes, and thermocouples. It will display temperature and oxygen concentration readings, allowing visualisation of data over time. It will provide indication of the environment, namely oxidising or reducing, and can record 48 hours of data to a USB flash drive. It is a plug-and-play device, meaning all that is needed for it to function is a connection to power and the Oxygen Probe.

Features:

- Real-time:
 - temperature and oxygen level readings;
 - graphing of temperature and oxygen levels;
 - display of oxidation or reduction;
- Record and log continuous data to a USB flash drive.
- Display real-time temperature in Celsius or Fahrenheit.
- Graphical representation of Oxygen and Temperature data over time;
- Configurable time scale and offset.
- Automatic scale and update of graph scale as the data-set grows.
- Record the oxygen level and temperature at every given time point to a CSV file on a USB flash drive.
- Stop recording the oxygen level and temperature data.
- Mark a point in time that is represented graphically as well as in the logged file.
- Configurable battery backed up Real Time Clock
- Display the data graph full screen if desired.
- Configurable scale and data offset on graph;
- B, N, E, R, J, S, K, & T type thermocouples supported.
- Software upgrade facility
- 48 Hours of data logging at 4 samples per second.

3 Specifications

Thermal				
Parameter	Minimum	Typical	Maximum	Unit
Operating temperature	-5	30	60	°C
Storage	5	20	60	°C

Electrical				
Parameter	Minimum	Typical	Maximum	Unit
Input Voltage	7.5	9	12	V DC
Power Consumption	—	20	—	Watts

USB Data Logging				
Parameter	Minimum	Typical	Maximum	Unit
Time duration	—	—	48	Hours
Sample rate	—	—	4	Samples per second
File size	150	MB		
File format	csv			

Electrical Small Signal Interface				
Parameter	Minimum	Typical	Maximum	Unit
Sample Rate	4	4	20	Samples per second
Response time to signal	50	250	1000	ms
O ₂ Sensor input voltage	-2.0	—	+2	V DC
O ₂ Sensor input impedance	0.1	TΩ		
O ₂ Sensor resolution	—	0.22	—	μV
O ₂ Sensor voltage error	—	0.22	—	μV
Thermocouple input impedance	—	1	—	MΩ
Thermocouple resolution	0.5	1.0	2.0	°C
Thermocouple input voltage error	0.25	0.11	1.0	μV

Connectivity				
Parameter	Minimum	Typical	Maximum	Unit
Ethernet	—	10	100	Mbps

Supported Thermocouples				
Type	Minimum	Typical	Maximum	Unit
B-Type	0	—	1820	°C
N-Type	-270	—	1300	°C
E-Type	-270	—	1000	°C
R-Type	-50	—	1768	°C
J-Type	-210	—	1200	°C
S-Type	-50	—	1770	°C
K-Type	-270	—	1400	°C
T-Type	-270	—	400	°C

Measurement Range				
Parameter	Minimum	Typical	Maximum	Unit
O ₂ Atmosphere	10-24	—	1	pO ₂ @ 700 °C
O ₂ Atmosphere	10-12	—	1	pO ₂ @ 1300 °C
Temperature (dep on TC)	-50	—	1820	°C

Hardware

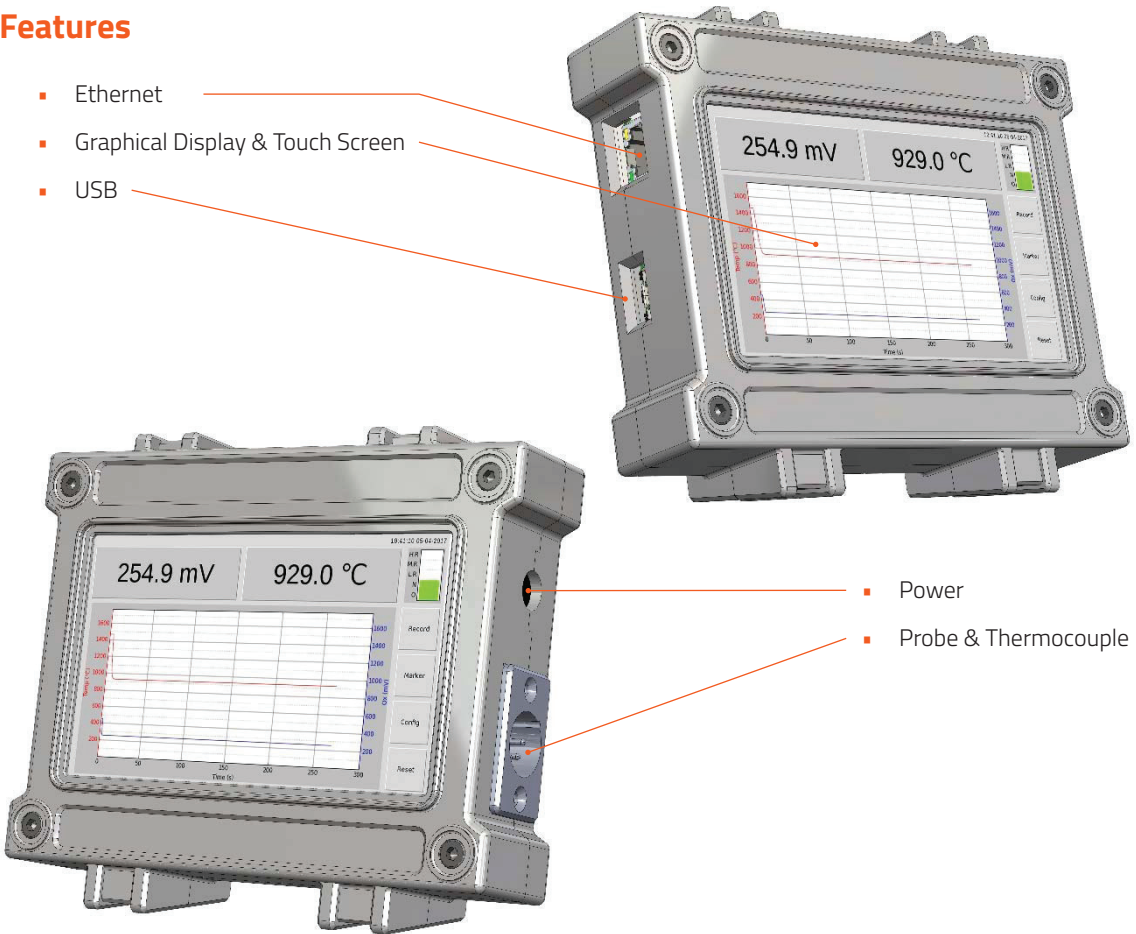
Category	Specification
Enclosure Material	Aluminium (anodised black)
Enclosure Dimensions	120 mm x 145 mm x 42 mm
Weight	600 g
Screen Type	Thin-film-transistor LCD
Screen Resolution	800 x 480
IP Rating	40

Connector type

AOS O2TA 2200	Manufacturer	Part Number	Supplier	Supplier code
4 Pin female XLR Cannon	Neutrik	NC4MXX	Mouser	568-NC4MXX

Features

- Ethernet
- Graphical Display & Touch Screen
- USB



- Power
- Probe & Thermocouple