

Microx 231 Oxygen Analyser



The Microx 231 Oxygen Analyser has been developed specifically for harsh process applications. It is a highly reliable, compact and cost effective Oxygen Analyser.

This analyser features a rapid-response LP Zirconia sensor with a measurement range of from 1 ppm up to 25% Oxygen.

Extremely fast response, high accuracy, and no requirement for periodic calibrations make this analyser a low-maintenance solution that delivers reliable performance for critical process control applications.

Applications

An Oxygen Analyser for use in:

- Additive Manufacturing
- Glove box purge and leak detection
- Air Separation
- Wave Soldering
- Inert Ovens

Features

- Measurement ranges: 1ppm - 25% O₂
- Reliable Zirconia sensor technology
- Suited to harsh process applications
- Fast response time
- Din rail mounting
- LCD display and 4 button multifunction keypad
- Analogue 4 to 20mA output for retransmission of measured signal
- RS232 communications
- 24VDC power supply
- 3 Configurable alarm relay contacts
- M18 Threaded sensor process connection



Microx 231 Oxygen Analyser

The Microx 231 is a highly reliable and cost-effective analyser with a logarithmic or linear analysing output. It measures oxygen from 1ppm to 25%. This compact analyser uses proven Zirconia sensor technology to accurately measure O₂ in a variety of applications.

Proven Sensor Technology

The LP Oxygen Sensor uses ceramic foils as the solid-state electrolyte. Screen-printing techniques are employed for producing the individual functional layers (electrodes, protective layers, etc.). The printed foils are laminated one on top of the other, and this principle enables a heater to be integrated in the sensor element.

The LP Oxygen Sensor element is fixed in the sensor housing by means of a ceramic seal packing. The double-wall protective tube provides the sensor element with highly effective protection against excessive thermal and mechanical stresses.

Special characteristics of this sensor type

- Short start-up times
- Stable control characteristics
- Lower heater rating
- Small size

Communication Options

The Microx 231 has an analog 4 to 20 mA output which can be configured for either a linear or logarithmic scale. The RS232 digital interface allows serial communication with the analyser.

Low Maintenance and Cost of Ownership

The Ntron Zirconia Oxygen sensor has an extremely long life expectation in the region of 3 to 5 years under normal operation. Due to the highly stable nature of the sensor, a calibration interval of once per year is required, allowing for significant cost savings.

Integration Flexibility

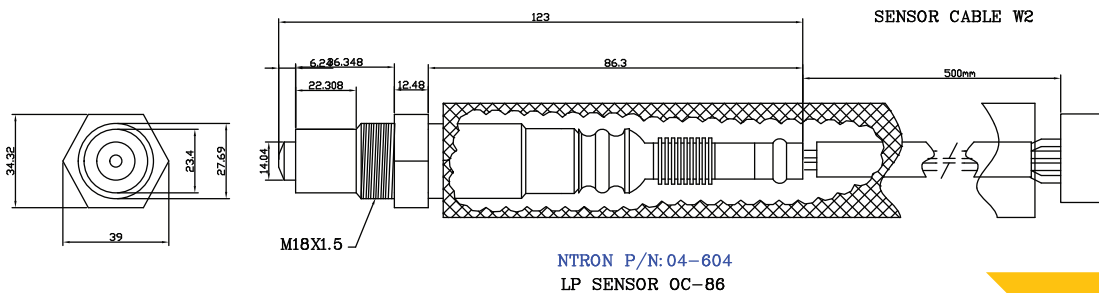
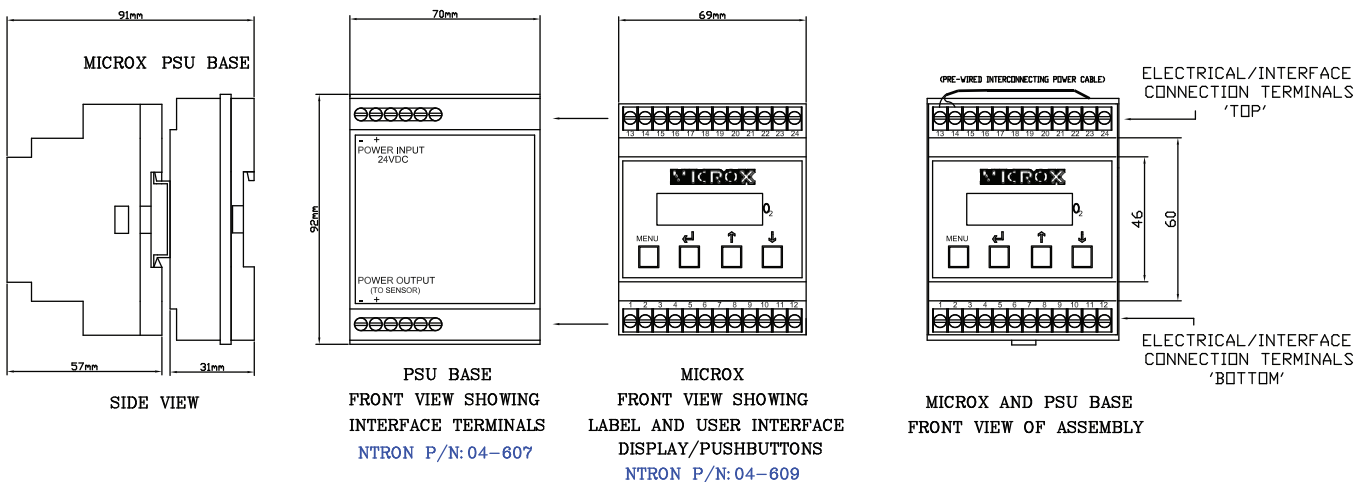
The compact Microx 231 is easy to install. The analyser is designed to be Din Rail, Wall or Panel mounted and can be integrated into a wide variety of equipment.

The OC-86 LP Oxygen Sensor has an M18 threaded process connection and can be installed in a flow through sensor base or with a KF adapter for in-situ monitoring.

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Product specifications

Gas Type / Range	Oxygen / 1 ppm - 25%
Sensor Technology	LP Zirconia sensor technology (LP)
Sensor Type	Ntron Oxygen Sensor OC-86 (LP Zirconia)
Accuracy	± 2% of reading at 20°C
Response Time (T90)	<10 seconds
Warm Up Time	3 mins
Sensor Life	3 -5 years
Relative Humidity	0 - 95% non-condensing
Max Sample Gas Temperature	600°C
Sample Pressure	Vented to atmosphere during operation and calibration
Display	100 x 33 dot graphics display module
Power Requirements	24VDC ± 10%, 1.2 Amps
Analogue Output	4 to 20mA, Linearity is ± 1%
Relay Outputs	3 off relay, dry contact 5 Amp rated
Serial Communication	RS 232
Warranty	12 Months from date of shipping
Dimensions	86mm (h) x 69mm (w) x 58mm (d)
Weight	175g Din Rail Mount
Mounting	Din Rail Mount
Environmental Rating	Enclosure IP 54



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Ordering information

Product	Sensor Type	Measurement Range	Process Connection	Part No.
Microx 231	Zirconia	1ppm to 25%	M18	04-530
Standard Cable Length - 3 metres				

Accessories	Drawing Number	Part Number
Microx Module	E452	04-609
OC-86 O2 Sensor	E451	04-604
Ntron Power Supply	E453	04-607

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