



MODEL 1637 MK II Oxygen & Carbon Dioxide Analyser

Oxygen and Carbon Dioxide gas sampling analyser

The 1637-Mk II Oxygen and Carbon Dioxide analyser has been redesigned to combine the robustness and speed of the original 1637 with the more up-to-date features of a current generation gas analyser.

This instrument incorporates Novatech's own industry proven zirconia oxygen sensor, revised to extend sensor life, paired with a purpose built CO₂ measuring cell. This analyser is designed for both sample and hold measurement of modified atmosphere packaging, or for continuous monitoring.

This analyser has an impressive list of features, including:

- Bluetooth® data downloading
- User programmable process alarm thresholds
- Large display shows oxygen & carbon dioxide in real time
- Accurate, rapid response zirconia O₂ sensor: 1ppm to 100%
- Sturdy non-dispersive Infrared CO₂ sensor, to 100%
- Very low maintenance
- Internal storage for 3680 samples
- 4x field programmable output relays
- 2x fully isolated range programmable 4-20mA outputs

The Novatech 1637-Mk II Oxygen and Carbon Dioxide analysers are ideal for:

- Head-space analysis in closed packages
- Head-space analysis in cans
- Inert and sterile packaging
- Continuous process measurement

Accuracy and reliability

The zirconia oxygen sensor used in the 1637-Mk II has been used extensively in industry for over 20 years. The sensor is built in Australia by Novatech Controls using patented technology developed by the CSIRO. It has proven to be highly robust and provide virtually drift-free measurement for many years of operation. The Oxygen sensor itself can be automatically calibrated in ambient air requiring no special tools or expensive equipment.

The carbon dioxide sensor has been developed by Novatech over several generations of gas analysers. It uses the principles of non-dispersive infrared (NDIR) spectroscopy to detect CO₂ concentration in real-time. The sensor is capable of measuring CO₂ concentration over the full range of 0% to 100% CO₂ with ±3% accuracy. Aside from annual recalibration the CO₂ sensor is automatically adjusted for environmental drift.

Product categories

The 1637-Mk II allows up to 200 separate products to be programmed into the analyser, complete with a simple to read description and preset process alarm thresholds. Samples taken using the sampling system have this product identification attached to them in the log to simplify data collection and storage.

Internal log

The analyser has an internal datalog capable of storing up to 3680 samples complete with date, time and product identification. This information can be downloaded directly to a PC via the Bluetooth interface and imported into a spreadsheet for review and archiving.

Customise the analyser to your specific application

The Novatech 1637-Mk II Analyser is available in various configurations and with several application specific accessories. The analyser can be supplied without the carbon dioxide sensor, likewise the carbon dioxide sensor can be added at a later date. For applications utilising the analyser in continuous sample systems the analyser can be supplied with or without an internal sample pump.

Other accessories available by request include:

- Metal can piercing tool
- Hypodermic needles for plastic packs
- Septum
- Filters for particulate and condensate

SPECIFICATIONS

Oxygen range

1 part per million (ppm) to 100%

Oxygen response time

<4 seconds with gas flow of 100cc per minute

Oxygen accuracy

±1% of actual measured value
±0.5% repeatability measured value

Oxygen display resolution

30.0 to 100%	±0.1%
1.00 to 29.99%	±0.01%
100 to 10,000ppm	±1ppm
0.1 to 99.9ppm	±0.1ppm

CO₂ range

0 to 100%

CO₂ response time

<8 seconds with gas flow of 100cc per minute

CO₂ accuracy

0 to 40%	±2%
40 to 80%	±3%
80 to 100%	±5%

Gas connection

1/8" Swagelok tube connection

Communications

BlueTooth® wireless

Analog outputs*

Two isolated, linearised 4-20mA DC, 1000ohm max

2A/240VAC, 2A/30VDC

Alarm relays*

4 isolated programmable, failsafe (active open)

2A/240VAC, 2A/30VDC

Mains voltage supply

85 to 265VAC 50/60Hz

Mains power

115W continuous, 500W maximum instantaneous

Warm up time

5 minutes

Environmental rating

Without CO ₂	0 to 50°C (32 to 120°F)
With CO ₂	0 to 45°C (32 to 110°F)
Relative humidity	5% to 95% (non-condensing)

Dimensions

265 x 150	(10.5" x 6"
x 350mm	x 13.75")

Weight

6Kg (13.2lbs)

Mounting

Desktop

Ordering information

Model	Measurement	Pump
1637-1	Oxygen	Yes
1637-2	Oxygen	No
1637-5	Oxygen & CO ₂	Yes

Accessories

- Metal can piercing tool
- Hypodermic syringe for plastic packs
- Septum – silicon strip
- Filters for particulate and moisture
- Sample lines
- Rugged carry-case



Optional rugged carry case

* only available in continuous sampling mode