



## Model

# 1637 Oxygen & CO<sub>2</sub> Analyser

## O<sub>2</sub> and CO<sub>2</sub> measurement made simple

### The Novatech 1637 O<sub>2</sub> and CO<sub>2</sub> Analysers are ideal for:

- Food and beverages
- Inert and sterile packaging
- General industrial use
- Scientific tasks

### The Novatech 1637 O<sub>2</sub> and CO<sub>2</sub> Analysers are especially suited to food and beverage applications including:

- Head space analysis in closed packages
- Head space analysis in cans
- Continuous process measurement

### The Novatech 1637 O<sub>2</sub> and CO<sub>2</sub> Analysers

- Easy-to-operate, reliable, no regular calibration needed
- Select the analyser for your application:  
O<sub>2</sub> or O<sub>2</sub> + CO<sub>2</sub>
- Accurate, rapid response, low drift Zirconia O<sub>2</sub> sensor: 1 ppm to 100%
- Sturdy, non-dispersive, Infra-Red CO<sub>2</sub> sensor: 0 to 100%
- RS232/485 computer/printer interface
- Two isolated 4-20 mA outputs
- Programmable O<sub>2</sub> and CO<sub>2</sub> alarms

### Accuracy and reliability

The oxygen and carbon dioxide sensors provide accurate and virtually drift-free measurement for years. The oxygen and carbon dioxide sensors are automatically zeroed for every reading and span recalibration, using a calibration gas, is a simple keyboard entry.

Minimal maintenance is needed if samples are kept clean!

### Tailor the analyser to the application

The Novatech 1637 Analysers are available for oxygen only, or for both carbon dioxide and oxygen. The instruments can be selected with a pump where samples need to be aspirated, and with accessories (see reverse side) including:

- Metal can piercing tool
- Syringes for plastic packs
- Filters for dry or wet dusts, or hydrocarbons

### Small sample volumes and responsiveness

Accurate readings can be made with sample volumes as small as 4 millilitres, providing response times to changes in gas composition of typically only 2 seconds (for O<sub>2</sub>) and 4 seconds (for CO<sub>2</sub>) at gas flow rates of 100 millilitres / minute.

### Security at all times

The lowest readings for oxygen, and the highest reading for carbon dioxide are held in memory, and displayed. Alarm relays will indicate the exceeding of programmed oxygen and carbon dioxide levels. The operation of the sensors is continuously monitored, and in the unlikely event that one or both should fail, the display will indicate clearly, in words, the actual fault.

### Reports

Connect a standard printer or PC to the instrument, and reports for every sample tested, are made available. Alternatively an analog recorder can be connected to the 4-20 mA current loop output.

# Specifications

## Measuring Range

- 1 ppm to 100% oxygen autoranging
- 0 to 100% CO<sub>2</sub>

## Response Time

- Oxygen < 2 seconds with a gas flow of 100cc / min
- CO<sub>2</sub> < 4 seconds with a gas flow of 100 cc / min
- Add sample tubing purge time to these figures

## Accuracy

- Oxygen ±1% of actual reading
- CO<sub>2</sub> ±3% of full scale

## Warm Up Time

- Seven minutes

## Outputs

- Two isolated, linearised, 4-20 mA DC outputs into 1000Ω loads (maximum)
- One common alarm relay for self diagnostic alarms
- Three user selectable alarm relays

## Power

- 240 / 110 VAC, 50 / 60 Hz, 115W

## Gas Connection

- 1/8" Swagelok tube connector

## Flow Rate Range

- 100 - 500 cc / min

## Environmental

- 0 - 50°C ambient temperature
- 0 - 45°C ambient temperature with CO<sub>2</sub> sensor fitted

## Weight

- 4.5 Kg

## Dimensions

- 265mm wide x 150mm high x 320mm deep

## Range of Output 1

- 1 ppm to 100% oxygen with field selectable span and zero. Minimum span is 100 ppm oxygen

## Range of Output 2

- 0 to 100% CO<sub>2</sub>
- Sample oxygen  
(Lowest value of the last sample taken and held)

## Indication Choice, Lower Line

Any or all of the following can be selected for display on the lower line of the 32 character, back lit, LCD:

- Sample oxygen / CO<sub>2</sub>
- Balance gas (Remaining gas after O<sub>2</sub> and CO<sub>2</sub> have been removed)
- Oxygen sensor emf
- Oxygen sensor temperature
- Oxygen sensor impedance
- Ambient temperature and ambient relative humidity
- Date / time, hours since date of last service

## Relay Contacts

- 0.5A 24VAC, 1A 36 VDC

## Sampling Pump

- Internal diaphragm pump

## Mounting

- Desk top. Also available as a surface mounting analyser with an external oxygen sensor (model 1234 oxygen sensor and model 1632 analyser)

## Ordering Information

Model	Measurement	Pump
1637-1	Oxygen	Yes
1637-2	Oxygen	No
1637-5	Oxygen & CO <sub>2</sub>	Yes

## Accessories

- Metal can piercing tool
- Hypodermic syringe for plastic packs
- Filters for dry dust, wet dust or hydrocarbons
- Flashback arrester for hazardous applications
- Calibration check gas solenoid valve
- Calibration check flowmeters

## Distributed by:

