



## Model **1234** Oxygen Sensor

# Oxygen measurement made simple

### The Novatech 1234 Oxygen Sensors are ideal for:

- Flue gas analysis
- Inert atmosphere measurements
- Modified Atmosphere Packaging
- Inert and sterile packaging
- General industrial use
- Scientific tasks

### One, Two, Three, Four Reasons for using Novatech 1234 sensors

Reasons for using Novatech 1234 sensors

- One:** Useable for Oxygen measurement in many processes
- Two:** Adapts to positive and negative pressure process streams
- Three:** Suitable for many corrosive situations
- Four:** Low maintenance and high accuracy

### The Novatech 1234 Oxygen Sensors

- Easy-to-operate, reliable, no regular calibration needed
- Select ancillaries for your application
- Accurate, rapid response, low drift Zirconia Oxygen sensor: 1 ppm to 100%
- Connect to the Novatech 1632 Oxygen Analyser, analog input card on a PC, PLC, or DCS

### Accuracy and reliability

The Novatech 1234 Oxygen sensors provide accurate and virtually drift-free measurement for years.

### Adapting the Novatech 1234 to your application

The Novatech 1234 sensors are available for Oxygen measurement in a range of applications by using ancillary equipment including:

- Process sampling probes available to suit your application
- Integral electric pump and filter assembly for aspirating samples
- Filters for dry dust, wet dust or hydrocarbons
- Flow meter

### The Novatech 1234 sensors are responsive

Accurate readings can be made with sample response times as short as 5 seconds to changes in gas composition for Oxygen.

**Talk to Novatech about your Oxygen measurement application; we're responsive and knowledgeable!**

# Specifications

## Measuring Range

- 1 ppm to 100% oxygen

## Sensor Output

- $emf = 2.154 \cdot 10^{-2} \cdot T \cdot \log_e(0.209 / \text{oxygen level})$

## Response Time

- 1234C 5 seconds with a gas flow of 5 litres / min  
30 seconds with a gas flow of 0.5 litres / min
- 1324P 5 secs with flows from 0.5 to 25 litres / min

## Accuracy

- $\pm 1\%$  of actual reading

## Thermocouple

- Type K

## Warm Up Time

- Seven to ten minutes

## Heater Power

- 110 VAC, 50 / 60 Hz, 115Watts

## Flow Rate Range

- 0.5 to 25 litres / min

## Gas Connection

- 1/4" NPT female, inlet and outlet

## Sample Aspiration

- Convection flow from hot furnace or flue, from process pressure, electric pump or air operated ejector (for 1234P model only).

## Environmental

- Non weather proof cabinet. If mounting outdoors, a weather-hood is required for electrical protection. Do not enclose in sealed cabinet or overheating will occur. Your cabinet should be vented.
- Ambient temperature 0 - 100°C

## Weight

- 2.2 Kg

## Dimensions

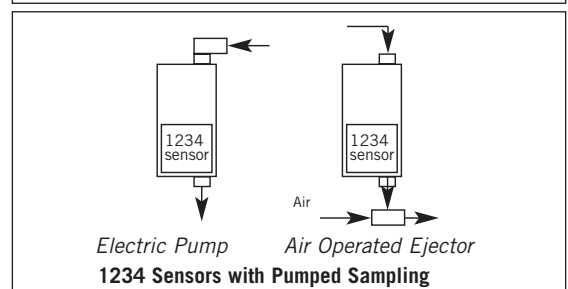
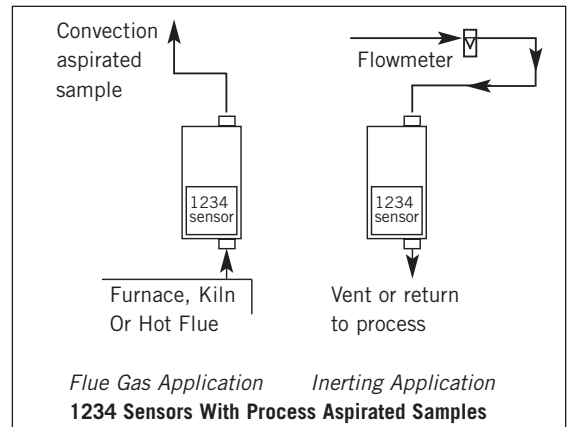
- 300 mm x 125 mm x 88 mm

## Optional Sample Pump

- External electrical diaphragm pump, 240 / 110 VAC, or air operated ejector, 30 to 100 kPa

## Optional Process Sampling Probe, Filter and Bush

- Stainless steel filter, 500°C max. Process connection bush 1.5" BSP or NPT. Both threaded 3/8" NPT or BSP. (3/8", 16 gauge tube by others)



## Mounting

- Vertical surface mount, brackets supplied

## Ordering Information

Model	Application
1234C	if sample is delivered from process or pump
1234P	if sample is drawn from the outlet by suction, specify mains voltage on 1234P, 240V or 110V

## Accessories

- Integral electric pump and filter assembly (fitted on top of your 1234 sensor)
- Air operated ejector (for 1234P model only)
- Sampling probe filter and bush, tube by others
- Filters for dry dust, wet dust or hydrocarbons
- Flow meter

## Distributed by:

Monitoring Solutions, Inc.  
4404 Guion Road  
Indianapolis, IN 46254  
Ph: 317-856-9400  
Fx: 317-856-9410  
email: sales@monsol.com