



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
- Gas purify analysis

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 1732 Oxygen Analyser, analog input card on a PC, PLC, or DCS

Accuracy and reliability

The Novatech 1234 Oxygen Sensors provide accurate and virtually driftfree 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 3 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 part per million (ppm) to 100% oxygen

Sensor output

$$EMF = 2.154 \times T \times 10^{-2} \times \log_e \left(\frac{0.2095}{OXY} \right)$$

EMF Probe EMF in mV

T Probe temperature in kelvin

OXY Oxygen partial pressure %

Response time

1234C 5 seconds with gas flow of 2 litres per min

1234E 3 seconds with gas flows 0.5 - 25 litres per min

1234M 3 seconds with gas flows 0.1 - 0.5 litres per min

Accuracy

±1% of actual reading

Thermocouple

Type 'K'

Warm up time

Seven to ten minutes

Heater power

110VAC, 50/60Hz, 115W

Flow rate range

To 25 litres per minute

Gas connection

1/4" tube inlet and outlet
(1/8" tube outlet for 1234C)

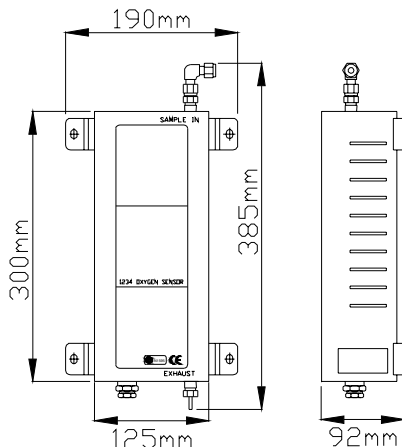
Sample aspiration

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

Mounting

Vertical surface mount, brackets supplied

Dimensions



Without fittings:
300mm x 125mm x 88mm
(11.4" x 4.9" x 3.5")

With fittings:
385mm x 190mm x 92mm
(15.2" x 7.5" x 3.6")

Weight

2.2 kg (4.9lb)

Environmental

Non weatherproof cabinet. If mounting outdoors a weather hood is required for electrical protection

Do not enclose in sealed cabinet or overheating may occur. Your cabinet should be appropriately vented

Ambient Temperature 0°C to 100°C
(32°F to 212°F)

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 (930°F) max.
Process connection bush 1.5" BSP or NPT to 3/8" tube. (3/8", 16 gauge tube supplied by others)

Ordering information

1234C If sample is delivered from process or pump

1234E If sample is drawn from the outlet by suction, specify mains voltage on 1234E, 240V or 110V

1234M For low flow rate requirement

Accessories

Integral electric pump and filter assembly MV-10F (fitted on top of your 1234 sensor)

Air operated ejector (for 1234E model only)

Sampling probe filter and bush, tube by others

Filters for dry dust, wet dust or hydrocarbons

Flow meter