Model 1231 1232 Oxygen Probes

In-situ Oxygen analysis for concentrations as low as 1 x 10^{-30} to 100%

The Novatech 1231 and 1232 Oxygen probes incorporate the world's most rugged zirconia sensors. They are ideal for:

- Flue gas analysis
- Oxygen levels in boilers, kilns and furnaces
- Combustibles analysis
- Carbon potential measurement
- Water vapour concentration and dew point measurement
- Inert and sterile packaging
- General industrial use
- Annealing furnaces

The Novatech 1231 and 1232 Oxygen probes are Australian-made and embody the research and development of one of Australia's premier research organisations, the CSIRO.

The Novatech 1231 and 1232 probes are highly accurate, and have minimal drift (±1%).

The Novatech in-situ probes are highly durable; choose the Novatech 1231 for analysing gases with temperatures below 900ºC and the Novatech 1232 for temperatures 700°C to 1400°C.

The Novatech 1231 and 1232 probes have a very rapid response to changes in Oxygen levels

A response time of between 1 and 4 seconds to oxygen level concentration changes means that potentially hazardous situations such as those caused through the build-up of dangerous, fuel-rich conditions can be avoided.

The Novatech 1231 and 1232 probes are easy to install

The probes are inserted into the flue, or other measuring point, and the threaded nipple (1231 has 1.5 " BSP/NPT; 1232 has 0.75" BSP/NPT) is screwed on to a mating socket welded to the process. Connect the probe cable to the transmitter, and you are ready to measure and/or control the combustion process.

Novatech offers you safety of operation

Use the Novatech 1632 which has a main burner safety interlock. This is the ONLY reliable way of preventing potentially explosive situations; SHOULD THE MAIN BURNER FAIL OR SHUT DOWN THEN THE SENSOR'S HEATER IS DE-ENERGISED SO THAT DANGEROUS FLUE GASES CANNOT BE IGNITED BY THE PROBE!

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Specifications

Model	1231	1232
Applications:	Combustion flue gases below 900°C (Note 1)	Combustion flue gases above 700°C with no contaminants eg natural gas, light oils
Temperature Range:	0-900°C	700-1400°C
Length:	250-2000 mm	500-1000 mm
Process Connection:	1 1/2" BSP or NPT	3/4" BSP or NPT
Sheath OD:	34 mm	19 mm
Electrical Connection:	Weather-proof plug-in connector or optional screw terminals.	
Cable:	1231 Cable can be supplied with a separate polyurethane reference airline. 1232 Cable has an integral airline.	
Heater:	Yes	No
Internal Thermocouple:	Type "K"	Type "R"
Response Time:	Typically < 4 seconds	Typically < 1 sec
Head Temperature:	100°C Max	150°C Max
Reference Gas:	Air 50 cc/minute approx. Pump can be supplied within transmitter	
Calib'n Check Gas Flow:	Approx. 2 litres / minute	Approx. 2 litres / minute
Ref. Air Connection:	1/4" tube	Integral air line through connector or 1/4" tube
Particulate Filter (optional):	Removable titanium 30 µm stand'd, 15 µm opt'n	Not required
Calib'n Check Gas Connection:	1/8" NPT female	1/8" NPT female
Weight:	1.8 kg plus 0.16 kg/100 mm	0.1 kg / 100 mm length

Notes

1. Care must be taken to avoid contact with explosive or inflammable gases with 1231 heated Oxygen probes when hot. Novatech Oxygen transmitters have built-in safety protection which disconnects the heater when the main flame is off.
2. A separate flue gas thermocouple is required with a 1231 probe if a flue gas temperature display on the transmitter is required. A 1231 Oxygen probe has an integral type K thermocouple which is used to control the sensor temperature.

Standard Probe 'U' Lengths

1231	1232
250 mm	500 mm
350 mm	750 mm
500 mm	1000 mm
750 mm	
1000 mm	
1500 mm	
2000 mm	

Ordering Information

- Probe insertion length (from process end of mounting thread to probe sensing tip). Standard lengths below
- Weather-proof plug or screw terminal connections
- No filter or standard 30 µm filter or 15 µm option (1231 only)
- Process connection thread type, BSP or NPT
- Cable with plug connector or no connector

Distributed by:

Novatech CONTROLS AUST. PTY. LTD.

309 Reserve Road, Cheltenham, Vic 3192 Australia
Tel: +61 (0) 3 9585 2833 **Fax:** +61 (0) 3 9585 2844
email: info@novatech.com.au
www.novatech.com.au