

# Laboratory oxygen probe

The *CarboProbeDS* is a laboratory oxygen probe, suitable for the measurement of oxygen concentration over a range from pure oxygen down to 10-24 atmospheres at temperatures ranging from 600°C to 1700°C (1100°F to 3100°F).

Supplied with a vacuum-sealed, stainless steel extension tube over the first 50 mm of the sensor. This extension tube can easily be fitted into an O-ring seal.

# A professional grade probe

- > Student laboratory experiments
- > Combustion and pyrolysis research
- > Measurement of fuel/air ratios in combustion
- > Oxygen fugacity measurement in geological samples



# **Specifications**

Output

0 to 1200 mV

#### Readout impedance

This probe should be used with controlling, recording, and indicating instruments having input impedance of 8 megaohms or higher.

## Accuracy

±2 mV in normal operating range

Response time

Less than 1.0 second

Thermocouple

R, S

#### Operating temperatures

600°C (1100°F) to 1700°C (3100°F)

### Mechanical shock

Resists mild mechanical shock; handle carefully

## Available lengths

100 mm (3.9"), 200 mm (7.9"), 300 mm (11.8"), 400 mm (15.7"), 500 mm (19.7"), 600 mm (23.6"), 700 mm (27.5"), 800 mm (31.5"), 900 mm (35.4"), 1000 mm (39.4"), 1100 mm (43.3")

#### Reference air

Uncontaminated dry air at maximum rate of 1 L/h (28.32 cfh)

External diameter

8.5 mm (~0.33")

# **KEY FEATURES**

- Supplied with a vacuum-sealed, stainless steel extension tube over the first 50 mm of the sensor
- The extension tube can easily be fitted into an O-ring seal
- Read the oxygen or thermocouple measurement with a hand-held digital meter (not included)
- Student laboratory experiments demonstration of the Nerst equation
- Combustion and pyrolysis research
- Measurement of fuel/air ratios in combustion
- Oxygen fugacity measurements in geological specimens
- Every probe is 100% tested with certification; certificates are enclosed with each probe
- · Probes include a 4-pin Amphenol-type cord plug, ready for connection to any suitable 4-conductor cable