

## Oxygen Probe VIG – S/W



### Special Features:

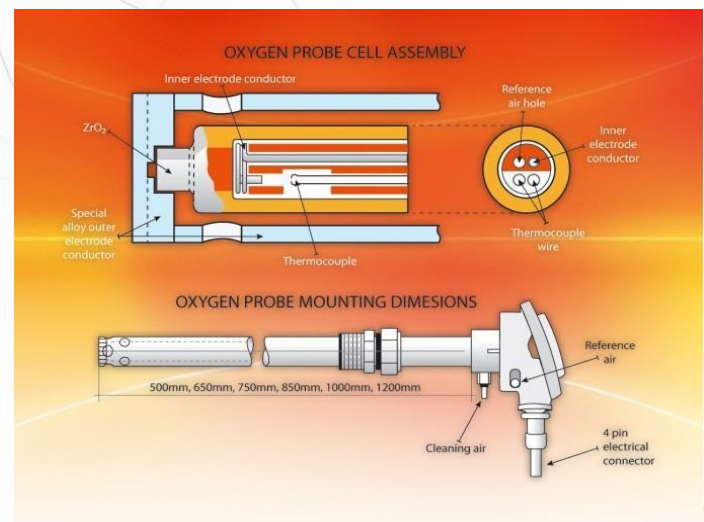
The MESA oxygen probe or carbon sensor is the latest generation of in-situ oxygen sensors using the CSIRO substrate. The probe has been completely redesigned, based on years of practical experience, to eliminate the problems found in other oxygen probes on the market.

The zirconia carbon sensor has been used for nearly three decades to control the carbon potential in many carburizing applications, and more recently in other applications.

### Advantages

- High performance, low cost sensor for heat treating applications
- Grand reliability, compatibility and accuracy
- Ideal for use in carburizing, neutral hardening, and gas generator applications
- Open electrode design resists sooting and aids in probe burn-off
- Burn-off port as standard without loss of insertion length
- Every probe is 100% tested with certification, certificate is shipped with each probe
- Response time < 1.0 second
- Interchangeable with all oxygen probes or carbon sensors
- Reduces stress on the 4-bore tube, reducing the incidence of breakages
- Improved electrical contact on expansion and contraction of the sheath
- Improved gas flow across the sensor tip

### Principle of Operation:



#### Order number

#### Device name

#### O2-Probe Type VIG with Thermoement Type S

24798	Oxygen Probe VIG-S 550
24752	Oxygen Probe VIG-S 650
24753	Oxygen Probe VIG-S 750
24754	Oxygen Probe VIG-S 850
24755	Oxygen Probe VIG-S 950

#### O2-Probe Type VIG without Thermoement Type W

24796	Oxygen Probe VIG-W 550
24748	Oxygen Probe VIG-W 650
24749	Oxygen Probe VIG-W 750
24750	Oxygen Probe VIG-W 850
24751	Oxygen Probe VIG-W 950

## Oxygen Probe VIG – S/W



### Technical Data

**Output:**

0.0 to 1.30 VDC

**Readout Impedance:**

Carbon sensors should be used with controlling, recording and indicating instruments with input impedance of 8 megaohms or higher

**Accuracy:**

+/- 0.05 weight percent carbon in normal operating range

**Response Time:**

Less than 1.0 sec.

**Thermocouples:**

Type S – with thermocouple  
Type W – without thermocouple

**Operating Temperature:**

760 °C to 1000 °C

**Protection Tube:**

Sandvik 253 MA™

**Probe types:**

VIG - with pipe diameter of 26.67 mm (can be VIG-S – with thermocouple or VIG-W without thermocouple)

**This type can be mounted vertically and horizontally inside the furnace**

VIK - with pipe diameter of 21,30 mm (can be VIK-S – with thermocouple or VIK-W without thermocouple)

**This type can be mounted ONLY vertically inside the furnace**

**Probe length:**

Standard lengths - 650 mm, 750 mm, 850 mm i 950 mm.

Other lengths are available upon customer's request.

**Mechanical Shock:**

Resists mild mechanical shocks. Handle carefully

**Immersion Depth:**

3 inches minimum

**Reference Air:**

Uncontaminated air at maximum rate of 236 cc per minute