

# Oxygen Probe KE



## Function:

The **oxygen probe** type KE is suitable for direct installation in the furnace atmosphere. Its operation is maintenance free. The output EMF is equivalent to the Nernst effect. The probe temperature can be recorded by an integrated PtRh-Pt thermocouple.

The **oxygen probe** is suitable for direct connection to all reputable C-level control systems.

The probe delivers a continuous measuring signal and is characterized by a fast response time. The current carbon content of the furnace atmosphere is calculated from the probe voltage according to Nernst and the EMF of the thermocouple.

The reproducible internal resistance of the probe permits simple calculation of its residual service life.

The probe can be used in any atmospheric heat treatment process e.g. carburizing, carbonitriding,

## Advantages:

- Long lasting with high performance because it has a full zirconium oxide tube and that contributes to the fact that the measurement over extended period of time is more precisely than with probes which have only zirconia element
- Very robust and with grand reliability, compatibility and accuracy



### Order number

### Device name

#### O2-Probe Type KE with Thermoelement Type S

530-3315	Oxygen Probe KE-S 500
530-3310	Oxygen Probe KE-S 550
530-3320	Oxygen Probe KE-S 600
530-3325	Oxygen Probe KE-S 650
530-3328	Oxygen Probe KE-S 700
530-3330	Oxygen Probe KE-S 720
530-3340	Oxygen Probe KE-S 800
530-3350	Oxygen Probe KE-S 900
530-3360	Oxygen Probe KE-S 1000
530-3380	Oxygen Probe KE-S 1100
530-3370	Oxygen Probe KE-S 1200
530-3371	Oxygen Probe KE-S 1250

### Order number

### Device name

#### O2-Probe Type KE without Thermoelement Type S

530-3220	Oxygen Probe KE-W 500
530-3225	Oxygen Probe KE-W 550
530-3230	Oxygen Probe KE-W 600
530-3235	Oxygen Probe KE-W 720
530-3236	Oxygen Probe KEN-W 720
530-3240	Oxygen Probe KE-W 800
530-3245	Oxygen Probe KE-W 900
530-3250	Oxygen Probe KE-W 1000
530-3255	Oxygen Probe KE-W 1200

# Oxygen Probe KE



## TECHNICAL DATA

**Sensor element:**

Continuous zirconium oxide tube

**Measuring range:**

1...10-29 bar partial pressure

**Response time:**

Approximately 1 sec.

**Working temperature:**

700...1050°C

**Thermocouple:**

Pt10Rh-Pt type "S" according to DIN 43710

**Protective tube:**

Heat-resistant steel or according to customer specification

**Probe types:**

KE-S – with thermocouple or KE-W without thermocouple

**Nominal length:**

Standard 500 mm or according to customer specification up to 1250mm

**Mounting thread:**

1" G

**Connection:**

Separate sockets and connectors for probe and thermocouple

**Connection for air lines:**

Reference air and purging air