# UPC MARATHON

# NITREX

# CS 87 & CCS 2000 SERIES OXYGEN PROBES







Oxygen probes for measuring the oxygen partial pressure in furnace atmospheres. Suitable for carburizing amtospheres, carbonitriding and endothermic gas generators

Probes CS 87 and CCS 2000 featuring a zirconium dioxide element at the tip are used in measuring systems for detecting oxygen partial pressure in furnace atmospheres for heat treatment of metallic and ceramic materials. The outer tubes made of Inconel 600 (CS 87) or ceramic (CCS 2000) have very high mechanical strength, excellent temperatureshock resistance, and resistance to corrosion and oxidation at high temperatures.

A continual cleaning effect at the interface between the zirconium dioxide and the outer electrode is produced by a special rotating mechanism.

All electrical connections are made by means of plug-and-socket devices. It is possible to admit flush air via a special connection. Each measuring cell has a platinum thermocouple (Type S / Pt10RhPt).

The electrical signals of these oxygen measuring cells can be converted to quantities which can be derived from oxygen partial pressure with the aid of an electrical evaluation unit.

### **APPLICATIONS**

Suitable for carburizing atmospheres, carbonitriding and endothermic gas generators.

#### → CS 87 ¾ INCH

Available in two standard lengths 700 and 900 mm (27.5 and 35.4") and in eight other lengths with an outer diameter of 21,3 mm (3/4").

#### → CS 87 1 INCH

Available in two standard lengths 700 and 900 mm (27.5 and 35.4") and in eight other lengths with an outer diameter of 26,7 mm (1").

#### → CS 2000

Available in two standard lengths 700 and 900 mm (27.5 and 35.4") with an outer diameter of 28 mm (1.1"). The ceramic outer tube makes it possible to install the probe in a horizontal position.

# nitrex.com

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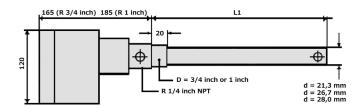
A NITREX COMPANY

# CS 87 & CCS 2000 SERIES OXYGEN PROBES

## **SPECIFICATIONS**

CS 87 & CCS 2000 SERIES	
OXYGEN MEASURING RANGE	1 - 10 <sup>-24</sup> bar
TEMPERATURE RANGE	600 °C - 1100 °C (1112 °F - 2012 °F)
THERMOCOUPLE	Type S / Pt10RhPt
PURGE AIR	50-100 l/h (1.76-3.53 cfh)
REFERENCE AIR	5 - 10 l/h
AMBIENT TEMPERATURE OF THE CONNECTION HEAD	max. 80 °C (176 °F)





## FEATURES AND BENEFITS

#### → EASILY INSTALLED

Easily installed and connected to your equipment

#### → MODULAR CONSTRUCTION

Modular construction allows easy disassembly / assembly and fast replacement of parts

### → ROBUST DESIGN

Robust design withstands thermal shocks

### → ACCURACY

Accuracy +/- 0.05 weight percent carbon i n normal operating range

### → SELF-CLEANING

Self-cleaning mechanism ensures constant accuracy of signal detection

### → RESPONSE TIME

Response time less than 1.0 second

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