Low Concentration Zirconia Oxygen Analyzer based on our long and field-proven experience

OX400

The OX400 is a highly accurate and reliable low concentration zirconia oxygen analyzer that is capable of measuring a wide range of concentrations, from 0-10 ppm up to 0-100 vol% O₂. This is the latest oxygen analyzer from Yokogawa, and its development was based on the company’s long experience and strong track record with this technology.

A proprietary new thin-film deposition technology was used in the zirconia sensor that creates a molecular bond between the zirconia element and the platinum layer. This prevents separation, enables a reduction in sensor size and ensures a high-speed response and long life.

- **Features**
  - Long life and high-speed response
  - High performance and high reliability
  - Built-in functions and a variety of self-diagnosis functions
  - Superior maintainability

- **Applications**
  - Oxygen concentration control in semiconductor-related diffusion and drying furnaces and in LCD manufacturing processes
  - Oxygen concentration control in solder pot flow and reflow ovens, and glove boxes used in electronics manufacturing, and in gas production processes
  - Oxygen concentration measurements to prevent dust explosions during powder transfer

- **Standard Specifications**
  - Measurement object: Oxygen concentrations in inert gases containing no flammable gas, silicate, corrosive gas, or liquid (including water vapor)
  - Measurement method: Zirconia system
  - Sampling method: Select from pump or aspirator or no suction device
  - Sample flow rate: Approx. 1.2 l/min
  - Sample gas flow rate: Approx. 10 l/min
  - Measurement range: 0 – 10 ppm to 0 – 100 vol% O₂
  - Measurement resolution: 1 ppm
  - Output range: 4 to 20 mA DC
  - Power consumption: Max. 200 VA (100 to 120 VAC), 100 – 120 VAC / 220 – 240 VAC, 50/60 Hz
  - Ambient temperature: 0 to 40 ºC, non-condensing
  - Ambient humidity: 5 to 85 % RH or less
  - Storage temperature: -5 to 50 ºC
  - Measurement object: Oxygen concentrations in inert gases containing no flammable gas, silicate, corrosive gas, or liquid (including water vapor)

- **Characteristics**
  - Preheat Zone
  - Reflow Furnace
  - Post-reflow Zone
  - Cooling Zone

- **Semiconductor, Liquid Crystal (FPD) Process**

- **Reflow Furnace**

- **Inlet**

- **Outlet**

- **Photoresist**

- **Deposition**

- **Removing**

- **Exposure**

- **Development**

- **Coating**

- **Cleaning & Annealing**

- **Test & Assembly**

- **Applications**

- **Compact and lightweight for easy installation.**

- **Superior maintainability**

- **Self-diagnostic content**

- **Characteristics**
Model and Codes

<table>
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<tr>
<th>Model</th>
<th>Suffix Code</th>
<th>Option Code</th>
<th>Description</th>
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- **Power Supply (Note 1)**
  - S: 100–120VAC, 50/60Hz
  - G: 220–240VAC, 50/60Hz

- **Sampling Method**
  - P: Built-in Pump
  - A: With Aspirator
  - N: No suction device

- **Pipe Connection**
  - R: Rc 1/4
  - T: 1/4 NPT

- **User’s Manual**
  - J: Japanese
  - E: English

- **Power Cable (Note 1)**
  - D: UL/CSA cable (2 m)
  - F: VDE cable (2.5 m)
  - H: GB cable (2.5 m)
  - Q: BS/PSB cable (2 m)
  - R: SAA cable (2.5 m)

- **Option**
  - P: Panel Mounting
  - MS: Multi selector
  - F: Activated Carbon Filter (Note 2)

*Note 1: Power cable of two-pole with earthing plug is attached.

*Note 2: Suffix code “- D” of power cable can not be specified when “- 3” of power supply is specified.

- **Mounting Hardware**
  - F: 4xM5 screw
  - Panel Cutout

- **Panel Cutout**
  - Frame
  - Ventilation

- **Sample gas inlet**
  - Screw
  - Panel Cutout

- **Sample gas outlet**
  - Ventilation

- **Panel Mount type with built-in pump (OX400-P-P-M/P)**
  - Unit: mm

- **Desktop type with built-in pump (OX400-P-P-M)**
  - Unit: mm

Piping Diagram

- **Built-in pump (Sampling method [-P])**
- **Desktop type with built-in pump (OX400-P-P-M)**

External Dimensions

- **Panel mount type with built-in pump (OX400-P-P-M/P)**
- **Desktop type with built-in pump (OX400-P-P-M)**

Notes on mounting:
- Make sure the bottom supports do not block the ventilation outlet on the bottom panel of the measuring instrument.
- Maintain at least 100mm of free space around the measuring instrument in order to ensure adequate ventilation.
- Make sure the panel is at least 2 mm thick.

Notes on installation:
- Hot air is discharged from the air outlet on the rear panel of the OX400.
- Maintain at least 100mm of free space around the OX400 to ensure adequate ventilation.