



# Orbisphere K1100 LDO Sensor Kit, 0-40 ppm, 410 controller, 6 mm flow chamber, wall mount

Product #: K110H-KTO-W-MET

ZAR Price: Contact Hach

## The first maintenance-free optical oxygen sensor for power plants.

Pre-configured Kit containing high accuracy Luminescent Dissolved Oxygen sensor K1100-S00H, controller 410K/W1C00000, 3 m cable, 6 mm flow chamber. Specially designed for power plants (non-nuclear).

The Orbisphere K1100 optical sensor together with the Orbisphere 410 controller offers a new way of monitoring oxygen in power plants. Orbisphere sensors set the industry standards for oxygen measurement by offering peace of mind to every water chemist.

### One calibration per year

One zero point calibration per year is all that is needed with the K1100 sensor. Designed for minimal drift, luminescent technology makes the K1100 sensor the most stable sensor with the longest calibration interval in the industry.

#### No membranes = two minutes of maintenance

With no membranes to replace and no electrolyte solution to replenish, the K1100 requires only two minutes of maintenance per year. Corrosive or hazardous chemicals are not required, making the annual task faster, easier and safer without reducing measurement precision.

#### Low cost retrofit

The complete system consists of a 410 Controller, a flow chamber, and the K1100 Luminescent Dissolved Oxygen Sensor. The sensor is compatible with Hach Orbisphere 28 mm flow chambers, eliminating the need for engineering changes. Installation is fast and easy and does not require special preparation.

#### A new level of confidence

The K1100 optical sensor is the first to use luminescent measurement technology to measure both ppb and ppm oxygen levels in power plants. Since 1978, Hach Orbisphere sensors have set the industry standard for oxygen measurement by delivering confidence to every water chemistry manager. The K1100 maintains this tradition and offers significant operating and cost benefits.

## **Specifications**

Accuracy:  $\pm 0.02$  ppm or 3 % whichever is greater

Ambient Temperature: -5 - 50 °C

Analogue Outputs: 3 Smart 0/4 to 20 mA (500 Ohms) programmable as linear or tri-linear, configurable to send

diagnostics or alarm informations.

Application: Nuclear

Calibration: Two points at cap replacement (zero and air), one during use (air) with standard 99.9% nitrogen

(quality 3.0) or equivalent oxygen free gas

Certifications: 2004/108/EC - EN 61326-1

Communication Capabilities: 3 x 0/4-20 mA; RS485; Ethernet

Controller: Wall

Controller Options: 410 Mono-Channel Controller

Display Resolution: 0.1 ppb

Lowest Detection Limit: 0.015 ppm

Mounting: 6 mm flow chamber

Parameter: Oxygen

Power requirements (Voltage): 100 - 230 VAC

Range:  $0 - 40 \text{ ppm dissolved } O_2 \text{ (DO)}$ 

Relays: Measurement board: 3 measurement alarm relays (1A-30 VAC or 0.5A-50 VDC), configurable to

send diagnostics information.

Main board: 1 system alarm relay (1A-30 VAC or 0.5A-50 VDC).

Repeatability:  $\pm$  0.015 ppm or 2 % whichever is greater Reproducibility:  $\pm$  0.02 ppm or 3 % whichever is greater

Response time: (90%) <10 s (gas phase); <50 s (liquid phase)

Sample Flow Rate: 50 - 300 mL/min

Sample Pressure: 1 - 20 bar absolute (14.5 - 290 psi)

Sample Temperature:  $-5 - 50^{\circ}\text{C}$ Sensors: K1100 LDO Storage conditions:  $-5^{\circ}\text{C} - 100^{\circ}\text{C}$ 

Temperature Range: Accurate from -5 - 50 °C

Resistant - temperature from -5 - 100 °C

Warranty: 12 months
Weight Sensor: 0.6 kg

What's included?: Includes 410 wall mount controller, K1100 LDO sensor (high level), 3 m sensor cable, stainless

steel flow-chamber with 6 mm fittings

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