



## Orbisphere K1100 LDO Oxygen sensor, 0 - 40 ppm, 28 mm Orbisphere fitting

**Product #:** K1100-S00H  
**ZAR Price:** Contact Hach

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

The Hach Orbisphere K1100 sensor is a high accuracy Luminescent Dissolved Oxygen (LDO) sensor that has been optimized for measurements in water processes in the power and steam industry.

Designed for mechanical robustness to extend service life and optimize total cost of ownership, the sensor, combined with the Orbisphere Controllers, offers a new way to monitor dissolved oxygen in power plants.

Maintenance and operating costs are significantly reduced due to the absence of membrane and electrolyte and sensor accuracy is unaffected by process changes such as flow changes.

#### 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 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.

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## Specifications

Accuracy:	± 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:	In-line
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
Display Resolution:	0.1 ppb
Lowest Detection Limit :	0.015 ppm
Mounting:	28 mm Orbisphere fitting
Parameter:	Oxygen
Power requirements (Voltage):	100 - 230 VAC
Range:	0 - 40 ppm dissolved O <sub>2</sub> (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:	± 0.015 ppm or 2 % whichever is greater
Reproducibility:	± 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°C
Sensors:	K1100 LDO
Storage conditions:	-5 °C - 100 °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?:	K1100 Sensor only  Controller, sensor cable, flow-chamber or process connection must be ordered separately

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