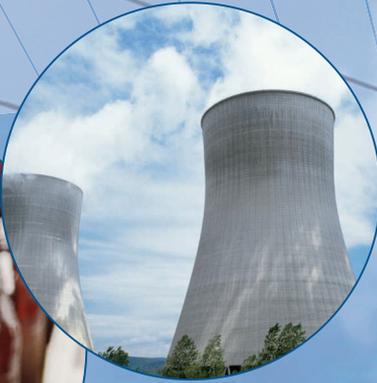


INFORMATION

PROCESS & LABORATORY ANALYSIS
PORTABLE LDO ANALYSER
ORBISPHERE 3100



Real data confidence

ORBISPHERE 3100 portable LDO analyser



LANGE 

UNITED FOR WATER QUALITY

Quick and easy dissolved oxygen monitoring

With Luminescent Dissolved Oxygen (LDO) technology integrated into the ORBISPHERE 3100, this analyser is guaranteed to improve process efficiency and provide accurate dissolved oxygen measurements. Ideally used in the beverage, industrial and power industries for both laboratory and process environments, it measures dissolved oxygen at ppb level.

The ORBISPHERE 3100 provides:

- **Real data confidence for process efficiency**
- **Robust design that endures harsh environments**
- **Fast response time and accurate measurements**

Data confidence for process efficiency

Direct data transfer using a USB key and simple identification of sample points provide measurements that are unaffected by operator interference. Operators have a password protected supervisor access option for system set-up. You can trust the ORBISPHERE 3100 – a programmable calibration reminder informs users when a service re-calibration is required. An alarm system also allows operators to see instantly whether production processes are in specification and helps make the right decisions fast.

Robust design and easy to use

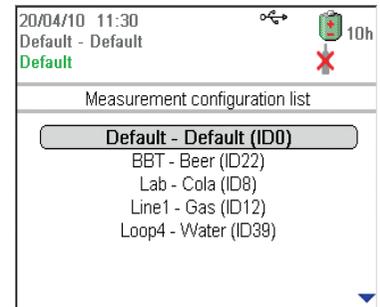
Designed with a stainless steel IP66 enclosure, the ORBISPHERE 3100 can endure harsh environments such as those of breweries and power plants.

No separate flow chamber, valves and sensors needed – it's all integrated into one portable analyser.

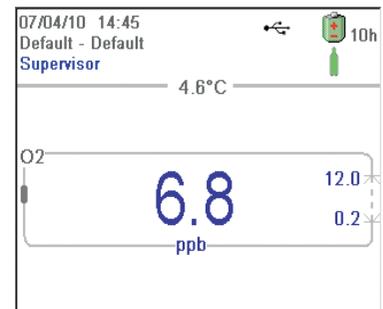
The ORBISPHERE 3100 is intuitive and easy to use:

- Bright, wide angle, colour display
- Long-life, rapid optical keypad
- Visual flow control with adjustment
- Data logger with 5700 storage measurements for process analysis

This analyser is practically maintenance free with only 1 calibration required every 4 years. The sensor's long life LDO spot and optimised software extend its overall lifetime.



Sample point list.



The all-in-one ORBISPHERE 3100 intuitive interface. Displaying oxygen reading, temperature, alarms and the battery level.

Fast response time and accurate measurements

Both the time it requires to measure and the production of typical product waste can drastically be reduced using the ORBISPHERE 3100.

Measurement accuracy and fast response time are made possible through optimised electronics, a minimised sample path and rapid temperature measurements.

Operators can measure dissolved oxygen in small packages and at-line with an accuracy of ± 0.8 ppb, to a detection limit of 0.6 ppb, and with a response time (t_{90}) <15 seconds.

A unique flow lock system blocks both the input and output of the sample path and ensures an optimal recovery time for the next measurement.

This portable analyser is ready to measure in less than 1 minute, with the integrated:

- flow chamber
- flow meter
- flow adjustment
- flow stop

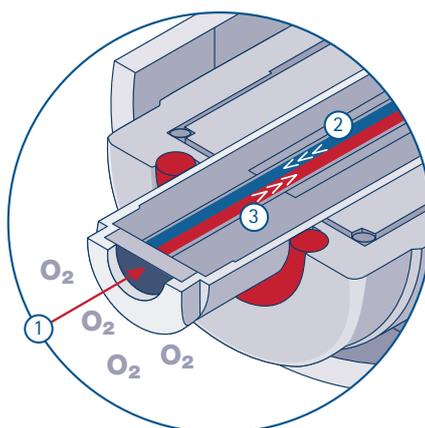
Such performance and flexibility minimises preparation time and operator workload.

LDO technology

An active fluorescent spot is excited with blue light and a red luminescent light is detected. The presence of oxygen changes the rate of fluorescence decay and phase shift which directly relates to the oxygen partial pressure. LDO technology eliminates traditional membranes and electrolyte.



The ORBISPHERE 3100 being used in a laboratory. This analyser can be used in both laboratory and process environments.



Oxygen interacts with the active luminescent sensor.

1. Active luminescent spot
2. Blue light (excitation)
3. Red light (detection)

Technical data

O₂ measurement	Response time (90 %, t ₉₀)	<15 seconds
	Range	0–2000 ppb
	Accuracy	+/-0.8 ppb or +/-2 %
	Detection limit	0.6 ppb
	Units	ppb, ppm, wt %, mg/l, O ₂ % , mbar and more
	Data storage interval/capacity	5 to 60 seconds/8 to 95 hours
Sample	Data storage memory	5700 measurements
	Temperature range	-5 to 45 °C
Communications	Pressure range	0–10 bar abs
	Data monitoring	RS232
	Data transfer	USB key
Instrument	Configuration transfer	USB key
	Weight	<3.5 kg
	Dimensions (L × W × H)	200 × 170 × 190 mm
	Operating temperature range	-5 to 45 °C
	Enclosure	Stainless Steel IP66 with polycarbonate sides
	Display	TFT colour 72 × 54 mm
	Rechargeable battery	Lithium Ion
Certifications	Battery life	>10 hours of continuous use
	European directives	Low voltage 2006/95/EC, EMC 2004/108/EC
	Electromagnetic compatibility standards	EN61326:2006
	Safety standard	IEC/UL/CSA 61010-1

Order information

- DGK3100-MB100 Beverage kit including: instrument, external power supply, EU power plug, 3m inlet tubing, tools kit, user manual.
- DGK3100-MI100 Industrial kit including: instrument, external power supply, EU power plug, 3m inlet tubing, tools kit, user manual.

Please discuss your specific needs with a HACH LANGE representative. This data is subject to change without notice.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.