

ORBISPHERE 3100 OPTICAL DISSOLVED OXYGEN ANALYSER

Applications

- Power
- Industrial water
- Food and beverage



The most rugged portable oxygen analyser in the industry

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.

Robust design that endures harsh environments

The Hach® Orbisphere 3100 is the most rugged portable dissolved oxygen analyser in the industry. Designed to withstand the harshest environments with a stainless steel enclosure. The bright, colour graphic display provides clear results in dark, cold or wet environments.

Fast, accurate results

Advanced optical technology provides accurate results in seconds. The Hach Orbisphere 3100 with optical sensors responds more rapidly than electrochemical sensors, allowing operators to take more measurements in less time.

One calibration per year

Optimised electronics and sensor optics in the 3100 mean you only need to calibrate once per year. The Hach Orbisphere 3100 maintains measurement accuracy significantly longer than other optical sensors, resulting in the most stable oxygen sensor with the longest calibration interval in the industry.

Low maintenance

With no membranes to replace or electrolyte to replenish, time spent servicing the sensor is cut in half. The optical sensing spot can be replaced and calibrated by the user, minimising down time. To ensure quality maintenance, a programmable reminder indicates when annual service and recalibration are scheduled.

Flexible communications

The Hach Orbisphere 3100 offers a high level of data confidence and efficiency by using a USB port to extract data captured by the instrument. The instrument is capable of capturing data for specific measurement points or continuously monitoring a process, recording up to 5,700 data points as a remote datalogger. An internal alarm system allows operators to see instantly which production processes are out of range.

Principle of Operation

An active fluorescent spot is excited with blue light and a red luminescent light is detected. The presence of oxygen changes the phase shift between the blue light and the red light, this directly relates to the oxygen partial pressure value.

Technical Data*

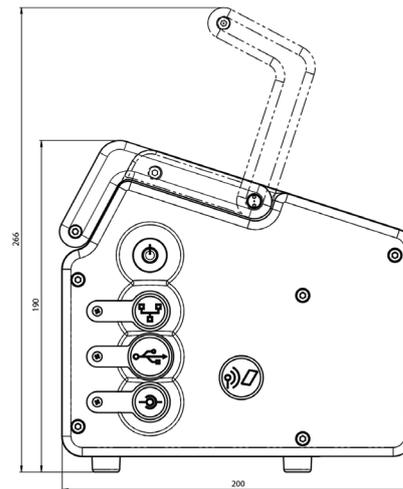
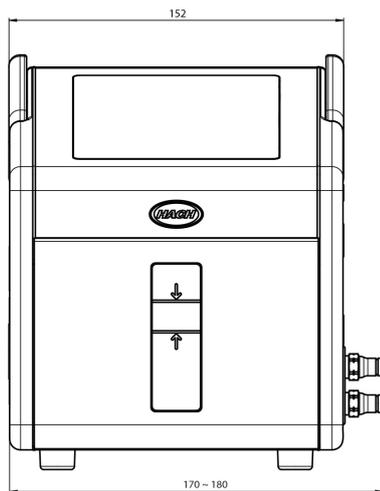
Response time	< 15 s
Measuring range	0 - 2000 ppb
Accuracy	± 0.8 ppb or ±2 %
Detection limit	0.6 ppb
Units	ppb, ppm, wt %, mg/L, O ₂ %, mbar and more
Sample interval	5 - 60 s
Sample temperature	-5 - 45 °C
Sample pressure	0 - 10 bar abs
Operating temperature range	-5 - 45 °C
Communication	Data monitoring per RS232 Data/configuration transfer per USB key

Weight	< 3.5 kg
Dimensions (H x W x D)	200 mm x 170 mm x 190 mm
Material	Enclosure: Stainless steel, IP66 with polycarbonate sides
Display	TFT colour 72 x 54 mm
Data Storage	5700 measurements
Battery life	Rechargeable battery, Lithium Ion, 10 hours of continuous use
Certifications	LVD IEC/EN 61010-1 EMC IEC/EN 61326-1 Ecodesign Directive

*Subject to change without notice.

Dimensions

In millimeters.



Order Information

- DGK3100-MB1040** Portable O₂ instrument for Beverage with ¼" fittings with all accessories
- DGK3100-MB1060** Portable O₂ instrument for Beverage with 6 mm fittings with all accessories
- DGK3100-MI1040** Portable O₂ instrument for Industry with ¼" fittings with all accessories
- DGK3100-MI1060** Portable O₂ instrument for Industry with 6 mm fittings with all accessories

Ask your local Hach contact to identify the most suitable sampling solution for your application.