

HACH ORBISPHERE 3100 OPTICAL DISSOLVED OXYGEN ANALYZER



Applications

- Power
- Industrial
- Food and Beverage

The most rugged portable oxygen analyzer in the industry.

With Luminescent Dissolved Oxygen (LDO) technology integrated into the ORBISPHERE 3100, this analyzer 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 analyzer in the industry. Designed to withstand the harshest environments with a stainless steel enclosure.

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

Optimized 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, minimizing 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.

Easy-to-Use Interface

The bright, color graphic display on the Hach Orbisphere 3100 provides clear results in dark, cold or wet environments. 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.

Specifications*

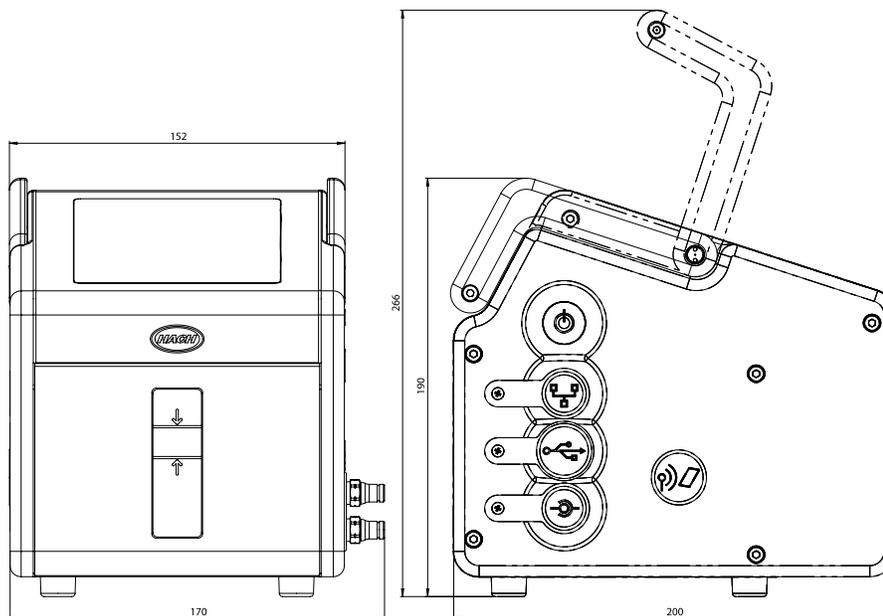
O₂ measurement Response time (t90)	<15s
Range	0-2000 ppb
Accuracy	±0.8 ppb or ±2%
Detection Limit	0.6 ppb
Units	ppb, ppm, wt%, mg/L, %O ₂ , mbar
Sampling Interval	5 s to 60 s
Sample Temperature Range	-5 to 45°C (23 to 113°F)
Pressure Range	0-10 bar abs / 0-145 psia
Communication Data Monitoring	RS232
Data Transfer	USB
Configurations Transfer	USB
Instrument Weight	< 3.5 kg (<7.72 lbs)
Dimensions	200 x 170 x 190 mm (7.87 x 6.7 x 7.5 inches)

Operating Temperature Range	-5 to 45°C (23 to 113°F)
Enclosure	Stainless Steel IP66 with polycarbonate sides
Display	TFT color 72 x 54 mm (2.8 x 2.1 inches)
Data Storage	5700 measurements
Rechargeable Battery	Lithium Ion
Battery Autonomy	>10 h continuous use
Certifications	European directives low voltage 2006/95/EC, EMC 2004/108/EC Ecodesign directive 2009/125/EC
EMC	EN61326:2006
Safety Standard	IEC/UL/CSA 61010-1

*Subject to change without notice.

Dimensions

In millimeters.



Ordering Information

DGK3100-MB2040	Portable O ₂ instrument for Beverage with ¼" fittings with all accessories
DGK3100-MI2040	Portable O ₂ instrument for Industry with ¼" fittings with all accessories
M63-9503	Zwickle adapter for beverage applications

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Hach Company reserves the right to alter specifications to equipment at any time.

