

# Hach Orbisphere 3650-3655 Selective Oxygen Measurement

Dissolved Gas

## Features and Benefits

### Ideal for Harsh Environments

The Hach Orbisphere 3650™ offers a robust portable system solution for oxygen measurement. The compact stainless steel construction is designed for the harsh environment of breweries, but it is also perfectly adapted for laboratory or verification purposes in other beverage applications. In addition, the 3650 can be used across a wide range of applications in the power generation, electronics and life sciences industries.

Designed for use with the Orbisphere A1100 high quality oxygen sensor, these instruments provide fast, accurate and repeatable measurements in both the dissolved and gaseous phase, at line or in the laboratory. For low level applications, the specially configured Orbisphere 3655 measures to 0.1 ppb oxygen.

### Simple Installation and Operation

The Orbisphere 3650 inlet tube is connected to a sample point or to a piercing device by a simple connector, making it quick and easy to install. The sample flows over the sensor membrane in the flow chamber, with an output valve controlling the sample's flow rate. The instrument's outlet tube allows the sample to drain away. The sample volume requirement is small, minimizing waste.

The Orbisphere 3650 uses two C-type, NiMH or alkaline batteries. Changing the batteries is quick and easy; there is no down time for the instrument. Stored measurements are not lost if batteries go flat or are being changed.

### Low Maintenance

The use of the Orbisphere A1100 sensor with this portable instrument allows for very quick cleaning with nothing more than tap water and requires no technical skills. The sensor refurbishment (typically every 6 months) takes only 3 minutes with a pre-mounted membrane cartridge and electrolyte, eliminating any risk of incorrect membrane positioning.

### Easy Calibration

Calibration after each sensor refurbishment is recommended. A traceable and simple calibration can be done directly in air by measuring its oxygen content with the use of the built-in pressure sensor and the automatic software calculation. Alternatively, the calibration can be performed against a liquid or gaseous sample of known concentration by simply entering the gas concentration via the keyboard.

The Orbisphere A1100 oxygen sensor technology reduces residual signals to negligible levels, eliminating the need for a zero point calibration and providing fast response times essential for multiple measurements. A number of different membranes are available for use with the sensor, optimizing the wide range of measurement applications.

DW = drinking water WW = wastewater municipal PW = pure water / power  
IW = industrial water E = environmental C = collections FB = food and beverage



### Uncomplicated Data Management

The Orbisphere 3650 display is large and easy to read. No conversion tables are needed as this instrument directly indicates the gas concentration in the chosen unit. The temperature of the sample is displayed by pressing one key.

Each instrument comes with a Windows® software package that enables the user to analyze up to 500 stored measurements and to configure the instrument. Using the RS-232 connection, stored measurements can be simply downloaded to a PC for analysis.

## Specifications\*

### Sample

**Temperature**  
-5 to 60°C (23 to 140°F)

**Maximum Pressure**  
10 bars / 145 psia

### Instrument

**Power Requirements**  
Batteries: two C-type, NiMH or alkaline, each 26 x 50 mm, 2.4 - 3 volts total

**Battery Life Time**  
40 hours continuous use

**Digital Interface**  
RS-232C: Baud rate=9600;  
Parity=None; Stop bit=1;  
Start bit=0

**Data Storage**  
500 data

### CE certification

EN 61326-1:1997 / A1:1998 /  
A2:2001 / A3:2003

**Directive**  
89 / 336 / CE

**Enclosure**  
IP 67, stainless steel

**Temperature of Use**  
-5 to 100°C (23 to 212°F)

**Temperature Compensation Range**  
-5 to 60°C (23 to 140°F)

**Dimensions (W x H x D)**  
115 x 150 x 220 mm  
(4.53 x 5.91 x 8.66 in.)

**Weight**  
2.5 kg

Continued on next page.

DW

PW

FB



Be Right™