

Orbisphere C1100 UPW Ozone Sensor

Applications

- Ultrapure Water
- Life Sciences
- Pharmaceutical
- Inline Beverage



The Hach Orbisphere C1100 Ozone Sensor together with 410 Controller is the only inline sensor for ozone monitoring.

Time and Cost Saving Ozone Sensor

True Zero - drift free and accurate measurements

With the unique Orbisphere platinum guard ring technology preventing false signals arising from the electrolyte, this sensor provides a true, drift free zero. Operators can be confident of measurements and alarm settings knowing the sensor is providing a 0.6 ppb detection level and ± 0.4 ppb accuracy at a 5 ppb level.

Wasted production is eliminated with no alarm discrepancies and risk is reduced in stopping the production line.

Fast, easy, traceable and reliable calibration

The C1100 ozone sensor has a unique air calibration feature that offers operators a quick and easy method to calibrate without requiring an external standard. Air calibration provides an accuracy of better than $\pm 5\%$ (achieving better than $\pm 1\%$ against an ozone standard of known concentration). The sensor could be delivered with a traceable validation certificate (to be ordered separately) using a $\pm 0.5\%$ reference.

The Orbisphere C1100 is the only sensor in the available that provides such certified high accuracy!

Low cost maintenance

With the unique Orbisphere cartridge, maintenance is easy. Both the set up and the initial sensor replacement procedure can be performed in just 3 minutes without the risk of miss positioning the membrane. This unique benefit substantially reduces and saves your annual maintenance costs.

Unbeatable reliability

Orbisphere has a history for quality and reliability when it comes to manufacturing long lasting and accurate instrumentation. The Orbisphere C1100 ozone sensor is designed to offer beverage and water quality operators peace of mind when measuring ozone.

FDA Compliant

The probe's surface has <0.8 Ra finish and the membrane is compliant with FDA 21 CFR 177.1550, to meet your regulatory needs for an in-line solution.

Principle of Operation

The electrochemical sensor consists of one cathode and one anode immersed in an electrolyte solution which is separated from the gaseous or liquid sample by a gas permeable membrane. Through an applied voltage, current will flow between the anode and the cathode.

A guard ring electrode surrounds the center electrode in order to reduce the influence of other gases. Gas penetrating through the membrane into the cell dissolves in the electrolyte and undergoes a reaction at the cathode, causing a measurable electric current to flow.

This current is proportional to the amount of gas entering the cell, which in turn is proportional to the partial pressure of gas in the sample outside the cell. The result is shown as gas concentration, which can then be displayed with a choice of several measuring units, according to instrument setup.

Technical Data*

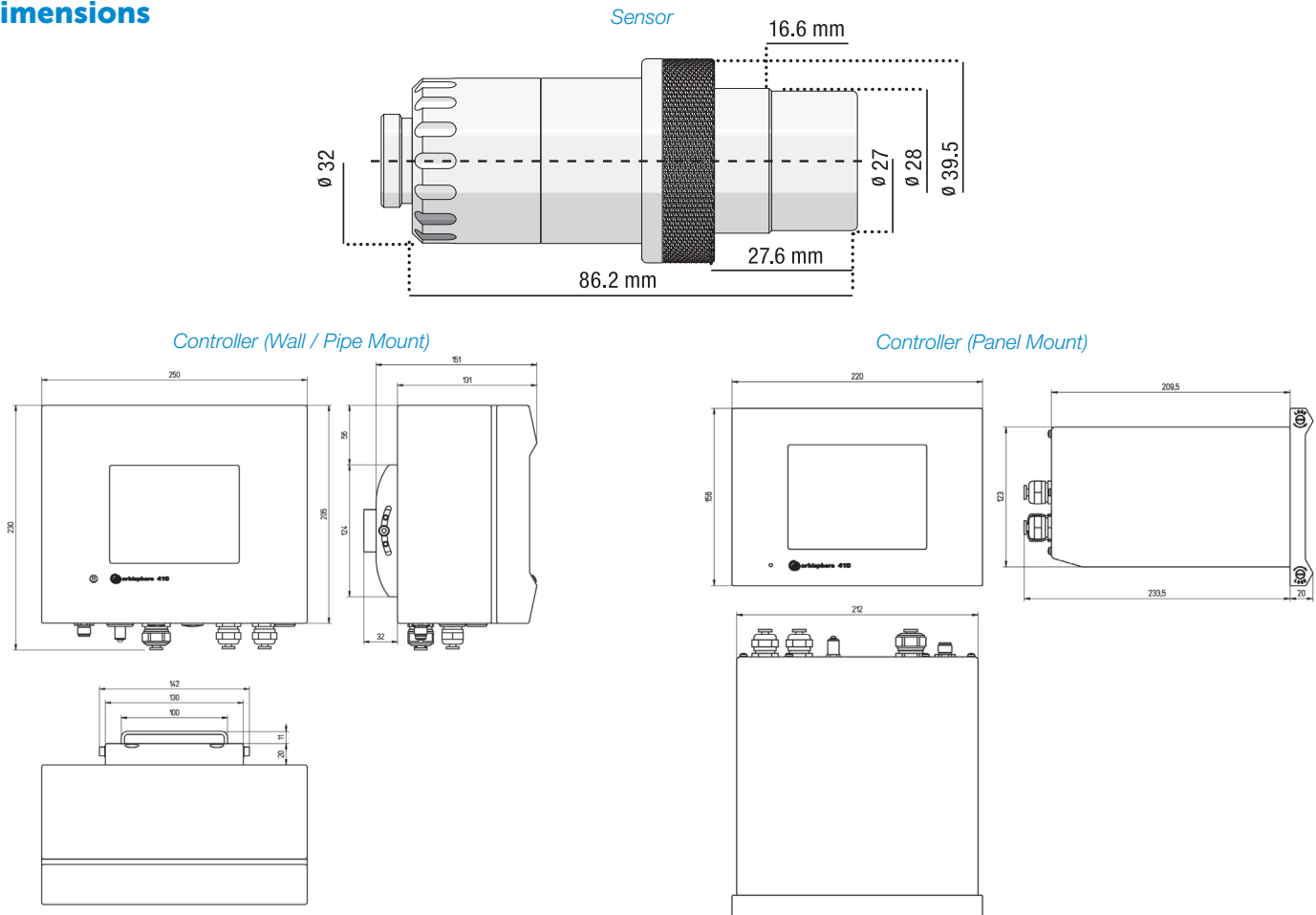
C1100

Range	0 ppb - 50 ppm O ₃
Accuracy	± 0.4 ppb or ±5%, whichever is the greater
Pressure Range	Stainless steel: up to 40 bar Titanium: up to 100 bar
Lower Limit of Detection (LOD)	0.6 ppb

Response Time	30 s
Temperature Range	Working operating range: -5 - 45 °C (23 - 113 °F) Maximum operating range: -5 - 100 °C (23 - 212 °F)
Membrane	2956A-CT
Flow Rate	350 mL/min (typical)

*Subject to change without notice.

Dimensions



Order Information

- C1100-T00** Electrochemical ozone sensor, titanium version, maximum pressure 100 bar, with Smart capability
- C1100-S00** Electrochemical ozone sensor, stainless steel version, maximum pressure 40 bar, with Smart capability
- 2956A-CT** Recharge kit of 4 pre-filled cartridges with pre-mounted 2956A membranes for C1100 ozone sensors with 33051-xT cap only.

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