



## **Orbisphere 510 Controller O<sub>2</sub> (EC), Panel Mount, 100-240 VAC, 0/4-20mA, Profibus, External Pressure Sensor Connection**

**Product #:** 510A00/P1C1P000  
**ZAR Price:** Contact Hach

### **Precise, Powerful Process monitoring**

The Orbisphere 510 Multi-Channel controller offers precise, powerful process monitoring capability.

Designed to complement the Orbisphere high quality sensors these instruments provide accurate, repeatable trace level measurements and an impressive level of data management.

Depending on the version, the Orbisphere 510 controller can be combined with up to 3 sensors among:

- Orbisphere 311xx Oxygen Sensors
- Orbisphere A1100 Oxygen Sensors
- Orbisphere K1100/K1200 Oxygen Sensors
- Orbisphere M1100 Oxygen Sensor
- Orbisphere 314xx Carbon Dioxide Sensors
- Orbisphere C1100 Ozone Sensors
- Orbisphere 312xx Hydrogen Sensors
- Orbisphere 315xx Nitrogen Sensors

These controllers are designed for applications in the power generation, electronics, life sciences, beverage, chemical and water treatment industries.

Do not hesitate to contact us to define the best configuration for your application.

### **Easy to use, intuitive software using clear, full color touch-screen**

All functions of Orbisphere 510 instruments are accessed through the color, touch screen. This screen acts as display and keyboard.

### **Internal diagnostics and reminders for maintenance and calibration**

To ensure continuous high performance and simplify maintenance, Orbisphere 510 instruments offer a number of diagnostic features.

- Notification that calibration is due—ensures QC procedural compliance
- Notification that a sensor service is due—optimal preventative maintenance planning
- Sensor service diagnostics—minimizes downtime

- System alarms transmitted through analog output—continuous status indication

**Easy to use and reliable**

Orbisphere 510 instruments are designed for ease of use. After simple installation, the system is measuring your process in minutes. Simple menus allow you to rapidly create a specific configuration for the instrument. The main measurement window continuously displays real time process readings, graphed sensor trends (user selectable from last 1 minute to last 1 hour), alarm limits, temperature and event occurrence.

**Multiple communication options including USB and Profibus**

Digital communication uses industry standard protocols including Profibus and USB in addition to traditional analog outputs and alarm relays. These may all be configured in terms of function, content and behavior.

**Data Storage**

Data storage of up to 10000 measurements, last 1000 operator actions and details of last 50 calibrations

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**Specifications**

|                               |   |
|-------------------------------|---|
| Analogue Outputs:             | 3 smart 0/4-20 mA (500 ohms), programmable as linear or tri-linear, configurable to send diagnostics information  |
| Communication:                | 3 x 0/4-20 mA; RS485; Ethernet; Profibus  |
| Communication Capabilities:   | 3 x 0/4-20 mA; RS485; Ethernet  |
| Compatible Instruments:       | Channel 1 : 311xx or A1100  |
| Compliance Certifications:    | EMC: EN61326-1:2006<br><br>CE: EN61010-1:2010<br><br>ETL, conforming to UL 61010-1 and CSA 22.2 No. 61010-1   |
| Connector:                    | Standard  |
| Controller:                   | 510, Multi-Channel  |
| Data storage:                 | Rolling buffer or store once mode for up to 1000 measurements and 1000 operator actions<br><br>Holds calibration records for last 50 calibrations                         |
| Dimensions (H x W x D):       | 156 mm x 220 mm x 253.5 mm  |
| Display:                      | Colour TFT touchscreen display  |
| Electrode Compatibility:      | Channel 1: 311xx or A1100   |
| Enclosure Construction:       | Panel Mount   |
| Material:                     | Aluminum  |
| Measurements:                 | Resolution, accuracy and response time are determined by sensor   |
| Mounting:                     | Panel   |
| Operating conditions:         | 0 - 95 % non-condensing relative humidity   |
| Operating temperature range:  | -5 - 50 °C  |
| Parameter:                    | O <sub>2</sub> (EC)   |
| Password Protection:          | 5 levels of authorised access to configuration and data management  |
| Power:                        | Universal 100/240 VAC @ 50/60 Hz, 25 VA   |
| Power requirements (Voltage): | 100 - 240 VAC   |
| Power supply:                 | 115...240 VAC with plug   |
| Relays:                       | 3 measurement alarm relays (2A to 30 VAC or 0.5 A to 50 VDC); configurable to send diagnostics information<br><br>1 system alarm relay (2 A to 30 VAC or 0.5 A to 50 VDC) |
| Sensor Connectors:            | Standard Cable Gland  |
| Units:                        | • Gas concentration: Configurable for gas or liquid phase with multiple unit options  |

|                   |  |
|-------------------|--|
|                   | <ul style="list-style-type: none"> <li>• Pressure : External and barometric pressure with multiple unit options</li> <li>• Temperature : Sample temperature with unit options (K, °C, °F)</li> </ul> |
| User Interface:   | Touch screen panel displays: concentration, trend graph, diagnostics, alarm status, historical data  |
| Warranty:         | 12 months  |
| Weight:           | 2.9 kg   |
| What's included?: | 510 controller and manual only.  |
|                   | Sensor and cable, flow-chamber or process connection, must be ordered separately.  |

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