



## Orbisphere 410M Controller O<sub>2</sub> (LDO), 1 Channel, Panel Mount, 10-30 VDC, 0/4-20mA, Profibus/RS485

**Product #:** 410M/P2C10000

**AED Price:** Contact Hach

### Precise, Powerful Process monitoring

The Hach Orbisphere 410 Mono-Channel Controller is a high accuracy instrument designed for the measurement of oxygen (LDO or EC), ozone (EC) or carbon dioxide (TC) by connecting the according Orbisphere high quality sensor.

Depending on which version is best suited for your process, the Hach Orbisphere 410 controllers are available as wall-mount or panel-mount version for process and laboratory analysis.

The Data Management system keeps you up to date with important information such as trace level measurement data, operator actions and calibration details with the security of a software password protected, reducing the risk of errors in operation or configuration.

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

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

All functions of Orbisphere 410 instruments are accessed through the colour 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 410 instruments offer a number of diagnostic features: A notification that calibration is due ensures QC procedural compliance, a notification that a sensor service is due ensures optimal preventative maintenance planning. The sensor service diagnostics minimises downtime, and system alarms transmitted through analogue output provide continuous status indication.

### Easy to use and reliable

Orbisphere 410 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 behaviour.

### 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:	Profibus DP/ RS485
Communication capabilities:	3 x 0/4-20 mA; RS485; Ethernet
Compatible instruments:	Channel 1: M1100
Compliance certifications:	EMC: EN61326-1:2006
	CE: EN61010-1:2010
	ETL, conforming to UL 61010-1 and CSA 22.2 No. 61010-1
Data storage:	Rolling buffer or store once mode for up to 1000 measurements and 1000 operator actions
	Holds calibration records for last 50 calibrations
Dimensions (H x W x D):	156 mm x 220 mm x 250 mm
Display:	Colour TFT touch-screen display
Measurements:	Resolution, accuracy and response time are determined by sensor
Mounting:	Panel
Operating conditions:	0 - 95 % relative humidity, non-condensing
Operating temperature range:	-5 - 50 °C
Parameter:	Oxygen LDO M1100 (beverage)
Password Protection:	5 levels of authorised access to configuration and data management
Power:	10 to 30 VDC - 30W
Power requirements (Voltage):	10 - 30 V DC
Relays:	3 measurement alarm relays (2A to 30 VAC or 0.5 A to 50 VDC); configurable to send diagnostics information
	1 system alarm relay (2 A to 30 VAC or 0.5 A to 50 VDC)
Units:	Gas concentration: Configurable for gas or liquid phase with multiple unit options
	Pressure: External and barometric pressure with multiple unit options
	Temperature: Sample temperature with unit options (K, °C, °F)
User interface:	Touch screen panel displays: concentration, trend graph, diagnostics, alarm status, historical data
Warranty:	24 months
Weight:	3.35 kg
What's included?:	410 controller and manual only.
	M1100 Sensor and cable, flow-chamber or process connection, must be ordered separately.

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