Orbisphere 410 Controller

Precise, Powerful Process Monitoring

The Orbisphere 410 offers precise, process monitoring capability. Designed to complement the Orbisphere high quality oxygen and ozone sensors these instruments provide accurate, repeatable trace level measurements and an impressive level of data management. These process monitoring instruments are designed for applications in the food & beverage, power generation, electronics, life sciences, chemical and water treatment industries.

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 analogue 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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Technical Data*

Enclosure construction	Wall (pipe) mount: stainless steel Panel mount: aluminum	**Compliance certifications**	EMC: EN61326-1:2006 CE: EN61010-1:2010 ETL, conforming to UL 61010-1 and CSA 22.2 No. 61010-1
Enclosure waterproof rating	Wall (pipe) mount: IP65, NEMA 4x Panel mount: IP65	**Data storage**	Rolling buffer or store once mode for up to 1000 measurements and 1000 operator actions Holds calibration records for last 50 calibrations
Measurements	Resolution, accuracy and response time are determined by sensor		
Sensor	Orbisphere 311xx, A1100, M1100, K1100, C1100, 314xx	**Password protection**	5 levels of authorised access to configuration and data management
Units	Gas concentration: Configurable for gas or liquid phase with multiple unit options	**Operating temperature range**	-5 - 50 °C
	Pressure: External and barometric pressure with multiple unit options	**Operating conditions**	0 - 95 % non-condensing relative humidity
	Temperature: Sample temperature with unit options (K, °C, °F)	**Display**	Colour TFT touchscreen display
Interference correction	Chlorinity correction Salinity correction CO_2 insensitivity H_2S insensitivity	**User interface**	Touch-screen panel displays: concentration, trend graph, diagnostics, alarm status, historical data
Communication	RS485	**Power**	Universal 100/240 VAC @ 50/60 Hz, 25 VA 10-36 VDC, 25 W
	Profibus DP (optional)		
	Ethernet	**Dimensions (H x W x D)**	Wall dimensions: 230,5 mm x 250 mm x 160 mm (9,1 in x 9,8 in x 6,3 in)
	USB-client to download data from a computer		Panel dimensions: 156 mm x 220 mm x 253,5 mm (6,14 in x 8,86 in x 9,84 in)
	USB-host to download data with a USB memory stick		
Analogue outputs	3 smart 0/4-20 mA (500 ohms), programmable as linear or tri-liniear, configurable to send diagnostics information	**Weight**	Wall (pipe) mount: 3,8 kg Panel mount: 2,9 kg
Relays	3 measurement alarm relays (2A to 30 VAC or 0.5 A to 50 VDC); configurable to send diagnostics information		*Subject to change without notice.*
	1 system alarm relay (2 A to 30 VAC or 0.5 A to 50 VDC)		

Several controller configurations depending on parameter/sensor, mounting, communications, and power options are available. Please contact Hach for more details.

Technopomiar
Everything You need to measure

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