

# WATER DISTRIBUTION MONITORING PANEL (WDMP sc)

**Applications**  
• Drinking water

**The right tool to establish your distribution system's water quality baseline.**

## Multi-parameter Panel

Multi-parameter on-line panel includes pH, conductivity, chlorine (free or total), turbidity, temperature, and sample pressure.

## Simple Installation

Single sample inlet, outlet and power hook-ups for ready-to-install convenience.

## Options Available to Suit Your Needs

Available as standard (with the CL17 chlorine analyzer) or reagentless (using the CLF10 sc or CLT10 sc chlorine analyzer). Reagentless water panel is available with or without the UVAS sensor for measuring organics.

## Establish Your Distribution System's Baseline

Start by taking measurements to establish a normal baseline at critical nodes, storage reservoirs, booster stations, pump stations, and other key monitoring points. The Water Distribution Monitoring Panel analyzes the right combination of "indicator" parameters recommended by the USEPA. When paired with the Hach Event Monitor™ Trigger System, deviations from the baseline can be detected.

## Field-proven Instruments You Can Count On

Reliability is critical for continuous, uninterrupted surveillance of your distribution system. Each instrument in the Water Distribution Monitoring Panel utilizes proven technology to provide readings in real time. All data is logged to the network controller and sent to the Event Monitor and SCADA or other remote locations.



*Reagentless  
WDMP sc*



*Calibration Shelf*

**HOMELAND SECURITY TECHNOLOGIES**



Hach scientists chose commonly tested parameters and robust instrumentation for the WDMP sc:

### CHLORINE – Your Choice of Chlorine Analyzers

#### CL17 Chlorine Analyzer (Free Chlorine or Total Chlorine) –

Every 2.5 minutes, the instrument obtains and analyzes a sample using a DPD colorimetric, USEPA-approved method and provides either a free or total chlorine reading, depending on the instrument's configuration.

#### CLF10sc or CLT10sc Reagentless Chlorine Analyzer

(Free Chlorine or Total Chlorine) – Chlorine measurement with this amperometric analyzer does not require reagents, eliminating the need for routine reagent replacement and waste stream management.

### TURBIDITY – 1720E Turbidimeter

Continuously flowing sample enters the turbidimeter body and flows through a bubble trap designed to vent any entrained air

bubbles from the sample stream. Turbidity is measured by directing a beam of light from the sensor assembly into the sample and measuring the scatter of light at 90 degrees with a photocell. The amount of light scattered is proportional to the amount of turbidity in the sample.

### pH & CONDUCTIVITY Probes

A patented, differential pH sensor provides information on the acid/base nature of your water. A two-electrode conductivity sensor measures the total ionic concentration in the water.

### TEMPERATURE

Temperature is measured to ensure the probes are measuring correctly and for other water quality information.

### SAMPLE PRESSURE

The sample pressure is measured to ensure the sample going to the panel is within the specified range.

Adding an Event Monitor, TOC analyzer and auto-sampler will greatly increase the capabilities of your water monitoring system.

### The Event Monitor™ Trigger System

The Event Monitor Trigger System lets users:

1. Detect, alert, classify and learn real-world events such as water main breaks and caustic overfeeds.
2. Detect, alert and classify more than 30 threat contaminants, from cyanide and anthrax to arsenic and pesticides when the WDMP sc is upgraded to a GuardianBlue® Event Detection System.

The Event Monitor Trigger System provides real-time analysis of data from the WDMP sc and the TOC analyzer or the Source Water Monitoring Panel (SWMP). The Event Monitor's breakthrough technology also makes it the only water distribution monitoring system that will detect and alert on unknown water quality deviations. This allows the system to warn operators about foreign agents, unidentified contamination and operational events never previously encountered.

### The astroTOC™ UV TOC Analyzer

The astroTOC Analyzer is one of Hach's most sophisticated water quality sensors; it greatly enhances the detection and classification capabilities of the Event Monitor Trigger System. When combined with the Water Panel, the TOC Analyzer exponentially increases the system's sensitivity to organic chemicals, resulting in a unique early warning system that is one of the most innovative in the industry.



astroTOC UV TOC Analyzer

### Auto-Samplers

The Automatic Sampler is an integrated part of any comprehensive water distribution monitoring system.

The Sampler is also an essential component of the Event Monitor Trigger System. When the Event Monitor triggers on significant water quality deviations, it instantly signals the Sampler to obtain water samples at designated monitoring locations. This gives you the ability to perform additional forensic analysis to confirm an event or identify an unknown contaminant.

Hach offers a wide range of simple, flexible, dependable samplers available in portable, refrigerated or all-weather refrigerated configurations to meet your sampling requirements.



On-Line Auto-Sampler



Event Monitor™ Trigger System

## Specifications\*

### Solution Types

Drinking water, raw and treated

<b>Parameter Ranges</b>	pH	0 to 14
	Conductivity	0 to 2000 µS/cm
	Turbidity	0.01 to 100 NTU
	Chlorine	0 to 5 mg/L CL17 0 to 10 mg/L CLF/T10
	Pressure	0 to 150 psi
	Temperature	-20 to 200°C

### System Specifications

<b>Controller</b>	sc1000 digital controller
<b>Sensor Type(s)</b>	Digital output
<b>Sensor to Controller Distance</b>	1000 meters, per RS-485

### Mechanical

<b>Mounting Options</b>	Wall or rack mounting
<b>Process Connections</b>	Sample Inlet 1/2" OD tubing or 3/8" NPT
	Sample Drain 3/4" NPT or hose barb
	Sampler Connection 1/4" NPT connection on inlet manifold

**Weight** 65 lbs

**Dimensions** 22" x 51.5"

<b>Cleaning Method</b>	Damp cloth
<b>Sample Temperature Rating</b>	5 to 40°C
<b>Sample Pressure Rating</b>	20-100 psi (If your sample pressure is higher than 100 psi, or is highly variable, use the optional pressure regulator accessory PN 6846600.)

**Min/Max Flow** 400-600 mL/min

### Electrical Power

<b>AC Voltage Range</b>	115/230 Vac 60 Hz for line-powered instruments (CL17)
<b>Max Power</b>	90 VA Max for CL17 30 VA Max for the other electronics

### Display

sc1000 controller display module, optional Event Monitor Trigger system

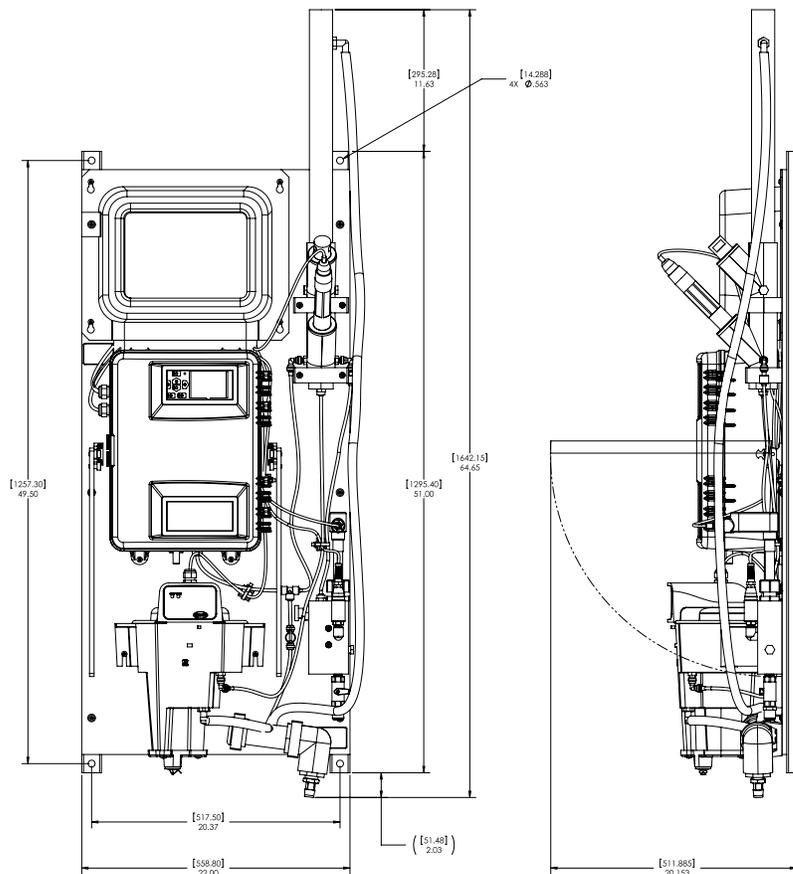
### Communication

<b>Type</b>	RS-485
<b>Protocol</b>	MODBUS®

\*Subject to change without notice.

## Installation/Dimensions

The WDMP sc comes fully assembled on a corrosive-resistant ABS panel with fiberglass mounting rails for easy installation onto a wall or rack. Simply connect the sample line (1/2" OD tube, factory supplied) to the inlet port and run a waste line (3/4" ID reinforced PVC hose) from the outlet port to a drain. The total sample flow requirement is 400-600 mL/min. A 115V, 60Hz power source is required. Total power consumption is 500VA maximum.



## Ordering Information

- 6846000** WDMP sc  
Panel comes with CL17 chlorine analyzer (specify free or total chlorine), conductivity sensor, pH sensor, and sc1000 digital controller with MODBUS®. Also included: start-up kit, 10 feet each of inlet and drain tubing, hose clamp, and manuals.
- 6846050** Reagentless WDMP sc  
Panel comes with CLF10 sc or CLT10 sc (Free or Total) chlorine analyzer, conductivity sensor, pH sensor, and sc1000 digital controller with MODBUS®. Also included: start-up kit, 10 feet each of inlet and drain tubing, hose clamp, and manuals.  
*Available with optional UVAS sc sensor for measuring organics.*
- 6846010** WDMP sc without reagents  
Recommended when shipping outside the U.S. The reagents are not included, so the hazardous shipment weight can be reduced. Please order reagents and calibration standards (if necessary) separately to obtain the proper items for start-up.
- 6846200** WDMP sc Start-up Kit  
Included with PN 6846000, or can be ordered separately if you require additional kits. Includes buffers, reagents, and calibration accessories for the first month of operation.
- 6846300** WDMP sc Maintenance Kit  
Includes all the necessary items to perform routine maintenance for the first six months.  
*NOTE: Chlorine reagents, required for the standard WDMP sc, last one month and must be ordered separately. Specify free chlorine reagent set (PN 2556900) or total chlorine reagent set (PN 2557000).*

**For a custom panel, please contact your local Hach Regional Sales Manager.**

## Accessories

- 6846400** ORP Accessory Kit  
Includes digital ORP sensor (Ryton body, 3 ft. cable length) and ORP solution (200 mV, 500 mL).
- 6846600** Pressure Regulator  
Regulates variable or high pressure sample down to a consistent pressure. Recommended for sample pressure above 100 psi or in applications with highly variable pressure.
- 6844600** WDMP sc Mounting Rack, Wheeled  
Includes attachment plate for sc1000 controller.
- 6840000** Probe Plug

## Additional Instruments to Optimize System

- 6840200** Event Monitor
- CGBASE** CityGuard Software  
For monitoring and controlling remote water quality stations that have an Event Monitor.
- H-6196-1030DS** TOC Analyzer for WDMP sc, 0-25 mg/L, 115V  
Includes 2 UV lamps, window and reagent level sensor in a powder-coated steel enclosure.
- H-6196-1030** TOC Analyzer for WDMP sc, 0-25 mg/L, 230V  
For use outside the United States, order with preference pack 6P95-211-00.
- 4300-0008** Purge Gas Generator for TOC Analyzer, 115V
- 4300-0009** Purge Gas Generator for TOC Analyzer, 230V
- 007182** Portable Sampler
- 007183** Refrigerated Sampler
- 007184** All-Weather Refrigerated Sampler

## HACH COMPANY World Headquarters: Loveland, Colorado USA

United States: 800-604-3493 tel 970-669-2932 fax orders@hach.com  
Outside United States: 970-669-3050 tel 970-461-3939 fax int@hach.com  
[hachhst.com](http://hachhst.com)

LIT2566 Rev 5

A14 Printed in U.S.A.

©Hach Company, 2014. All rights reserved.

*In the interest of improving and updating its equipment,*

*Hach Company reserves the right to alter specifications to equipment at any time.*



Be Right™