



# Environmental Monitoring Equipment

Instrumentation meeting monitoring needs

2018-2019

 **Global Water**  
a **xylem** brand

# Letter To Our Customers

Global Water, founded in 1990, is a manufacturer, distributor, and systems integrator of water instrumentation serving the water, wastewater, and environmental markets. We design and manufacture our own products, as well as distribute products manufactured by other companies. One of our core competencies is to integrate products into systems to meet our customer's requirements. We have a customer service orientation that is supported by our well trained sales engineers and service technicians. We are committed to producing cost effective, accurate, rugged, and reliable monitoring solutions. Our products are engineered for simple installation, easy operation, and minimal maintenance. Our solutions are fully supported and 100% guaranteed. Our web catalog ([www.globalw.com](http://www.globalw.com)) was one of the first in the water monitoring industry, and we have continuously expanded the site to include significant product and technical support information.

Global Water is a Xylem brand. Xylem Inc. (NYSE:XYL) was formed when ITT Corporation spun off its water division into a standalone publicly traded business, in October of 2011. As part of a global water solutions provider we are better positioned to serve our customers.

Global Water's sales department is located in an industrial area near Sacramento, California, while our service department and manufacturing/ distribution facility are located in College Station, Texas.

Our web-site has been designed to meet the needs of water-related agencies and companies around the world who have a wide range of requirements for water instrumentation. You will be able to find a variety of information about the equipment you need for your application. Our goal is to help you find the best resources for your applications and to offer you any support you may need. Feel free to contact us by phone, email, fax, or via our online information request form, and we will be glad to assist you.

Bookmark our web-site, [globalw.com](http://globalw.com), so that you can refer to it for all of your water instrumentation needs. We appreciate all your comments and suggestions, and we look forward to helping you monitor the world's waters.

## About Xylem

Xylem, is committed to providing our customers with solutions to their most challenging problems through the use of our expertise and innovative technology.

As part of that commitment, Xylem continues to develop and launch new innovative product lines, building upon our proven sensor and analytics technology. We take pride in improving and setting new standards in the markets that we serve.

If you want to know more about Xylem, please visit [www.xylem-analytics.asia](http://www.xylem-analytics.asia)



## We are committed to you, our customer:

- Global Water aims to be a manufacturer and distributor of the best products available to meet your water instrumentation needs.
- Our number one goal is to meet your technical support needs. We are ready to recommend solutions and to answer your technical questions.
- We will be happy to help you select the right equipment or to customize a design for your application— and we will even help you find instruments that we do not supply.
- Discounts are available to O.E.M's and large volume users; we will be happy to customize a quote for you.
- We are committed to keeping up with the latest ideas and information to keep you aware of new developments in this fast growing industry. As new products come out, we evaluate them in order to determine their effectiveness and usefulness, and then we pass that information on to you with our suggestions. We are always glad to hear from you about new products that you have found useful.



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# Featured Products

## WL16 Water Level Logger Pg 1

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- Ability to record over 81,000 readings
- 4 unique recording options
- Water-resistant
- Storing data and setting options made easy through user friendly software (included)
- Multiple depth ranges
- Highly accurate water level measurements
- Easy operation and installation



## Shuttle® Ultrasonic Level Transmitter Pg 3

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- Single cable design with lengths up to 100 meters
- 4 port cables feature user-replaceable sensors; universal ports can accept any 4 sensors; optional depth sensor available (with depth and no depth)
- Long-life rechargeable lithium-ion battery to power handheld and sensors
- Color display and backlit keypad; menu-driven operation
- Digital smart sensors are automatically recognized by the instrument and store calibration data
- Global positioning system (GPS) (optional)
- Rugged, waterproof case (IP-67 rated) with rubber over-mold and metal, military-spec (MS) cable connectors as well as rugged titanium sensors
- 3 year instrument warranty; 2 year cable warranty (sensor warranties vary)



## FP111, FP211 and FP311 Flow Probes Pg 6

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- Digital display in ft/sec or m/sec
- Records 30 data sets for later analysis
- Rain-proof digital computer
- Highly accurate easy flow monitoring
- Debris shedding turbo-prop
- Lightweight, rugged, and reliable
- Telescoping handle with staff gauge
- Padded carrying case for easy storage
- CE Certified
- Used by water professionals worldwide since 1990



## FM500 Ultrasonic Flow Meters Pg 7

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- Clean or dirty water applications with selectable modes
- Quick and easy setup and operation
- Clamp-on transducers never contact process liquid
- Built in data logger downloads to standard SD card
- Fully configurable analog and pulse outputs



## EcoSense ODO200 Optical Dissolved Oxygen Pg 17

- Automatic temperature compensation
- 1-year instrument, cable and sensor cap warranty
- 1-, 4- and 10-meter durable field cables available
- Manual input for salinity and pressure compensation
- Low battery indicator with 100 hour battery life
- Replaceable optical sensor cap (12-18 month life)
- Auto shutoff function after 30 minutes of inactivity
- 50 data set reviewable memory
- IP67 waterproof rating



## FSS – Sampling Systems Pg 12

- Easy transport-quick disconnect pickup hose conveniently stored inside the enclosure
- Durable-heavy duty wheels and retractable handle built in
- Improved battery life-enclosed battery compartment with smart battery charger
- Rugged construction for harsh environments
- Level and water quality triggering options



**FSS** Sampling System

## pHix® Compact transmitter Pg 15

- pHix is all-in-one electrode, fitting and transmitter device
- Easy installation, the pHix Compact is easily mounted and setup
- Powered directly from PLC (active input 12-30VDC)
- Automatic buffer sequence started via switchable handle or through tilt switch
- pHix Compact™ provides 4-20 mA



## WE800 Weather Station Pg 25

- 7 analog channels and 2 pulse channels
- Datalogger enclosed within a sturdy weatherproof case
- Storing data and setting options made easy through user friendly software (included)
- View real-time data via computer software or download recorded data to your computer
- 12VDC 2A-H rechargeable battery
- Easy operation and fully assembled
- USB and serial communication ports



# Level and pressure

Hydrostatic - Ultrasonic - Water level alarms and tapes

## Water Level - Flow - Temp Loggers



**WL16**  
Water Level Logger

Submersible Pressure Transducer with rugged sensor design combined with a Datalogger for remote monitoring and recording water level or pressure data. The Global Logger II software is included with the WL16 to provide real-time readout, measurement interval and engineering unit selection, station ID setting, and sensor calibration. The WL16 is ideal for your stream, river, lake, reservoir, wetland and pond monitoring needs.

### Features

- Ability to record over 81,000 readings
- 4 unique recording options
- Water-resistant
- Storing data and setting options made easy through user friendly software (included)
- Multiple depth ranges
- Highly accurate water level measurements
- Easy operation and installation



**FL16**  
Water Flow Temp  
Logger

The FL16 Water Flow Loggers will record over 81,000 depth, temperature, water flow and velocity readings in sewer and drainage pipes, as well as other open channel applications such as flumes, weirs and square channels.

FL16 Water Flow Logger's user-friendly Windows-based software is tailored specifically for calculating water flows in partially filled sewer and drainage pipes using the Manning's Equation, with pull-down menus for selecting and entering the necessary information.

### Features

- USB and Serial communication options available
  - Wet-wet transducer eliminates vent tube concerns
  - Automatic barometric pressure and temperature compensation
  - Water level loggers packages include weather-resistant logger unit, non-fouling 0-3 ft sensor with 25 feet of heavy duty cable. Extra cable can be added up to 500 feet.
  - Automatic barometric pressure and temperature compensation
- Serial & USB water flow logger software kits included with unit free of charge.

### Accessories

#### ARJ000

F16U USB version for collecting data with most laptop/desktop computers.

#### ARJ050

F16U USB software kit with software, manual, and serial interface cable.

#### AE0000

WLEXE Extra Water Level Logger Cable

#### AN0000

Temperature Option



**WL400**  
Water Level Sensor

### WL400 Water Level Sensor

Provides highly accurate and reliable water level and pressure measurements in rivers, streams and several other applications. The compact, rugged design makes installation easy. The WL400 has automatic barometric compensation and optional temperature output. The 4-20 mA output sensor is compatible with most monitoring equipment.



**WL450**  
Stainless Level  
Transmitter

### WL450 All Stainless Level Transmitter

Highly accurate submersible pressure transducer. The WL450 features 316L stainless steel or Titanium diaphragm, digital temperature compensation, and environmentally neutral Hytrel® cable-providing a high level performance over a long period of time with a wide range of operating conditions. The WL450 is perfect for your monitoring applications such as streams, rivers, reservoirs, and more. NSF 61 certification is available



**WL705**  
Ultrasonic Water  
Level Sensor

### WL705 Ultrasonic Water Level Sensor

Uses the latest ultrasonic distance measuring technology for accurate non-contact water level monitoring. The sensor contains a rugged transducer in a stainless steel housing for long life. The WL705 provides the industry standard 4-20 MA output with 3 ranges available. Higher ranges are best for use in river, lake or open channel level measurements. Installation is simple and requires no programming, calibration or maintenance.

# Shuttle® Ultrasonic Level Transmitters



The Shuttle Ultrasonic Level Transmitter measures the distance to a liquid and is used primarily to measure the level in tanks, pump wells, sludge tanks, storm flow weirs, channels, etc. The transmitter is not in physical contact with the liquid measured.

Shuttle sends a strong, narrow ultrasonic pulse to achieve stable and reliable measurements even from turbulent and polluted surfaces.

The transmitter is simple and logical to operate. The instrument is intelligent; it recognises and eliminates signal impacts from its surroundings, e.g. piping and flanges inside a well.

Shuttle needs no operation after initial set-up. The instrument has an automatic start function. The sensors cover measurement ranges from 0-10 cm up to 0-25 m.

Choose separate sensor and electronics modules to get the optimal sensor for the job.



FEATURES					
SHUTTLE®	TRANSMITTER	200570	200640/41/42	200630/31/32	200660
Application		Fluids, Solid materials	Fluids, Solid materials	Fluids, Solid materials	Fluids, Solid materials
Measurement range	Depending on sensor	15 m in fluid 6 m in solid	12 m in fluid 5 m in solid	25 m in fluid 10 m in solid	10 m in fluid 5 m in solid
Frequency		30 KHz	40 KHz	30 KHz	50 KHz
Spreading		3 °	7 °	6 °	6 °
Analogue 4-20 mA	•				
Digital outputs	2				
Approvals	UL CE	CE	<sup>1)</sup> FM APPROVED CE	<sup>1)</sup> FM APPROVED CE	CE



## WL500 Well Level Sounder

### Water Detection Unit and Measuring Tape Reel

The WL500 Well Level Sounder is designed to provide reliable and accurate measurements of ground-water levels. Water level readings are conveniently taken at the top of the casing with accuracy to within 1/100 of a foot.



- Extremely durable Polypropylene storage reel with rugged solid aluminum frame
- Lightweight steel and aluminum storage reel option for easy transportation and durability in the field
- Highly accurate Polyethylene coated steel tape marked in engineering or metric increments
- Field serviceable 5/8" (1.59cm) probe with stainless steel conductors for durability
- An optional 3/8" (.95cm) non-field replaceable probe is available
- Adjustable sensitivity to prevent false triggering
- Audible and visible alarms activated when the probe makes contact with water
- Easily replaced 9 volt battery
- Polypropylene storage reel standard lengths: 100' (30 m), 200' (60 m), 300' (100 m)
- Lightweight steel and aluminum storage reel: 500' (150 m), 750' (225 m), 1000' (300 m)

## WL550 Oil Water Interface Meter

### Hydrocarbon Detection Probe and Tape Measuring Reel

The WL550 Oil/Water Interface Meter can be used in numerous applications including measuring oil and water levels in monitoring wells, detecting tank leakage and obtaining accurate measurements of water levels. When the interface meter is lowered down a well and contacts the product layer, a solid tone and green light alarm is activated on the reel. When the probe detects water, the tone begins to oscillate and the light changes to red.



- Highly accurate Kynar® coated steel tape marked in engineering or metric units
- Accuracy: 100th of a foot/100'
- Field replaceable probe is only 5/8" (1.59cm) in diameter
- Stainless Steel conductors for durability
- PTFE and stainless steel probe with ETP strain relief
- Audible and visible alarms activated on reel when the probe contacts product and water
- Auto shut-off circuit to extend battery life
- Easily replaced 9 volt battery
- Polypropylene storage reel standard lengths: 100' (30 m), 200' (60 m), 300' (100 m)
- Lightweight steel and aluminum storage reel: 500' (150 m), 750' (225 m), 1000' (300 m)

## High Water Alarm

### Weather Resistant Housing



- Self-powered model for stand alone applications
- Bright strobe and loud sounder
- Easy to install just about anywhere
- Robust and reliable
- Choose the power option that best suits your application
- Integrates well with our water detection sensors, float switches, and controllers
- Hermetically sealed electric connectors (Super Purger)
- Reduces labor costs and saves time

# Flow Measurement

Open channel - Ultrasonic - Electromagnetic and Flumes

## FC220 Open Channel Flow Monitor

 Global Water



**FC220**  
Open channel  
flow monitor

### Features

- 8-button keypad that easily guides you through the versatile setup menus
- Digital LCD screen that displays water flow up to 7 digits, allowing for large flows to be displayed and totalizer records up to 9 digits.
- Easy to use interface with user selectable flow tables
- Water resistant enclosure
- Accepts any 4-20mA water level sensor's input
- Output signal for recorders and displays
- Non-volatile memory, password protected from reset
- Relay outputs for alarms, sampling, or data logging
- Water resistant enclosure
- Easy-to-use interface with user selectable flow tables

Reliable and accurate monitor for measuring and totalizing open channel flows for flumes and weirs, as well as for any gravity-type open channel flow application.





**FP111**  
Flow Probe

Highly accurate water velocity (flow) probes that measure flow in a variety of surface water applications—streams, rivers, canals, and stormwater/agricultural runoff. A unique turbo propeller sensor uses the most accurate positive displacement technique available for velocity sensing. Flow Probe handles come in three lengths: 3.7 to 6 feet (FP111), 5.5 to 15 feet (FP211) and 2.5 to 5.5 feet (FP311).

## Features

- Digital display in ft/sec or m/sec
- Records 30 data sets for later analysis
- Rain-proof digital computer
- Highly accurate easy flow monitoring
- Debris shedding turbo-prop
- Lightweight, rugged, and reliable
- Telescoping handle with staff gauge
- Padded carrying case for easy storage
- CE Certified
- Used by water professionals worldwide since 1990



**FP111**  
Prop housing with  
optional orientation fin

## Easy Streamflow Measurement

Quickly and easily measure streamflow using Global Water's Flow Probe. Flow is determined by:  $V$  (average velocity)  $\times$   $A$  (cross-section area) =  $Q$  (flow).

Calculate the cross-sectional area ( $A$ ) of water in a round pipe by measuring the water's depth and using the calculation tables included in the Flow Probe's manual. To determine the cross-sectional area for streams and rivers, measure the distance from shore and water depth at various points across the stream to construct a channel profile. These measurements are easy to record by drawing a diagram on graph paper.

The Flow Probe supports two unique methods for determining the average velocity ( $V$ ) in a stream. (1) For small streams and pipes, move the probe slowly and smoothly throughout the flow until a steady average reading is displayed. This reading is the true average velocity for the streamflow. (2) For larger streams and rivers, divide the stream into subsections 2–3 feet wide. We recommend that you draw the subsections on your channel profile and run a measuring tape across the stream for reference. Obtain an average velocity at the center of each subsection by repeatedly moving the probe vertically from the surface to the bottom until a steady reading is displayed. The average velocity multiplied by the area of the subsection equals the flow for the subsection. Add all of the subsection flows to obtain the total streamflow.



## FM500 Ultrasonic Flow Meters

Ultrasonic flow meters that use transit time and Doppler methods to measure flow.

- Clean or dirty water applications with selectable modes
- Quick and easy setup and operation
- Clamp-on transducers never contact process liquid
- Built in data logger downloads to standard SD card
- Fully configurable analog and pulse outputs



## EX100/200 Electromagnetic Flow Sensors

Adjustable depth electromagnetic insertion flow sensors

- Depth adjustable sensors
- Fits any 1-1/2 inch pipe fitting and adjusts to pipe sizes 3-48 inches
- Meter extends only about 1/8 of pipe diameter, minimizing potential for clogging with debris
- Optional 4-20mA flow rate and totalizer display
- Hot-tap option available
- Brass or 316 stainless steel



## iMAG 4700 Electromagnetic Flow Meters

Flanged electromagnetic flow meters for full-pipe municipal or industrial water and wastewater applications.

- Simple and economical as a mechanical meter
- No moving parts for low maintenance & long life
- Minimal straight pipe required
- Water resistant enclosure (IP68 rated)
- NSF-61 approved
- Pulse output for loggers, PLC's, or telemetry





## RF Series – Ramp Flumes

Fixed size flumes for flow measurement. Ideal for use in small streams, irrigation ditches, and lined or unlined canals.

### Features

- Low investment for accurate water measurement
- Wide flow rate ranges available
- Simple Installation
- Easy Shipping-RF3.5, RF7, and RF10 units can be shipped via UPS.
- Rugged Design
- Low Maintenance-Self cleaning functionality in the approach section



## Parshall Flume

Constricts primarily horizontally. The Parshall flume is designed for rectangular or trapezoidal channels such as irrigation, environmental, or industrial.

## Palmer-Bowlus Flume

Constricts the flow vertically and horizontally. The Palmer-Bowlus flume can be molded to be inserted into an existing half-round pipe.

## "H" Flume

Attach to the ends of pipes where the water is free-falling.

### Features

- High quality polyester resin and fiber-glass materials
- Highly durable and accurate
- Easy installation

# Ground Water Sampling

Pumps - Bailers - Grab and Sludge samplers

## Submersible Groundwater Pumps



### GP Submersible groundwater pump

#### Ground water pump for water testing

- Used and trusted within the groundwater industry for more than 15 years
- Recommended by drillers, hydrologists and field technicians
- Practical for dedicated use and disposal
- Reduces labor costs and saves time



### GP Inline Water Pumps

#### Inline water pump for water testing

- Used and trusted within the groundwater industry for more than 15 years
- Recommended by drillers, hydrologists and field technicians
- Practical for dedicated use and disposal
- Reduces labor costs and saves time
- Attach 13mm (1/2") or 11mm (3/8") tubing and lower into well
- Connect leads to 12V DC power source and pump is energized



### WP Groundwater purging pumps

#### Purging pumps for groundwater testing

- Used and trusted within the groundwater industry for more than 15 years
- Recommended by drillers, hydrologists and field technicians
- Practical for dedicated use and disposal
- Ready to use
- Supplied with heavy gauge cable to reduce voltage drop (Super Purger)
- Hermetically sealed electric connectors (Super Purger)
- Reduces labor costs and saves time
- Completely pre-assembled and packaged with leads and alligator clips
- Connect leads to 12V DC power source and pump is energized



## Swing Samplers

Swing Samplers for collecting water samples.

- Hinged end for easy sample collection
- Pole extends up to 12 feet

## Long handle dippers

Long handle polyethylene dipper for taking water samples.

- Strong but lightweight
- Inert high density polyethylene



## Disposable bailers

Disposable Polyethylene Bailers for groundwater sampling.

- Improved bailer design fills 33% faster than other bailers
- Trouble free cord attachment and accurate pouring
- As heavy as most double-weighted without the extra cost
- Manufactured under strict clean-room conditions
- Highest quality, virgin materials



## Sludge Judge®

Sludge Samplers for taking accurate readings of settled solids.

- Take accurate readings of settled solids
- Combine sections to achieve the sampling length needed
- Ideal for sewage treatment plants, chemical plants, and food processing facilities

## Sampling Systems



### WQS Features

- Easy to use four button interface with user selectable sensor types
- Rugged construction for harsh environments
- Scalable water quality triggers for taking composite samples
- Water quality sampler data recorder is Windows compatible

### WQS Water Quality Sampling System

Unique portable water quality sampler that includes an easy to use, lightweight composite/discrete water sampler, a water quality process controller with dual relay outputs, and a data recorder that is compatible with Windows™ and Windows™ CE. Easy set up based on sensor parameters, making the WQS ideal for identifying water quality trouble areas and/or triggering samples based on water level or weather factors.

### Accessories & Parts

Order No.	Description
DA0000	Water Temperature Sensor
DB0000	pH Sensor
DFH000	Turbidity Sensor
DCC500	Conductivity Sensor
DD0500	Optical D.O., 25 ft cable



#### SP250

Best for fast tubing changes and reduced maintenance



#### SP200

Allows samples at any speed up to 500 ml per minute rate at 4 foot head



#### SP100

Easy push-button control for exact sample sizes

### SP- Series Portable Samplers

The SP-Series Portable Samplers include the SP200 Variable Speed Peristaltic Sampling Pump, the SP250 Quick Release Sampler, and the SP100 Push Button Sampler. This sampler family is ideal for sample collecting within shallow lakes, ponds and holding pools.

### SP- Series Features

- Easy sample collection
- Rugged, lightweight, weather resistant enclosure
- Reversible motor to backflush hose





**FSS Sampling System**

## FSS – Sampling Systems

A unique water monitoring package that includes an easy to use lightweight composite/discrete water sampler, an open channel flow monitor and dual displays and outputs with a data recorder that is both Windows™ and Windows™ CE compatible. System has over 20 pre-programmed flume and weir tables for ease of use and flexibility. The peristaltic pump prevents sample contamination. The FSS is portable and can easily be set up to take samples based on flow rates such as a stream monitoring application.

### Accessories & Parts

Order No.	Description
00-010	Spare 12V Gel Cell Battery
329969	Battery Charger
00-835*	1- Gallon Glass Bottle
CA0600	Stainless Steel Suction Strainer
00-546	Suction Hose, per foot
00-744	Peristaltic Pump Tubing, per foot

\*Only one glass bottle will fit in sampler case without removing battery



**WS700**



**WS700R**



**WS755**

## WS700 WS700R & WS755 – Sampling Systems

Global Water's WS700 single bottle and WS755 dual-bottle samplers combine all of the features you need to meet a wide variety of sampling requirements. Both models can be used in many surface water applications, ideally, river and stream sampling.

### Features

- Easy transport-quick disconnect pickup hose conveniently stored inside the enclosure
- Refrigerated Wastewater Sampler
- Durable-heavy duty wheels and retractable handle built in
- Improved battery life-enclosed battery compartment with smart battery charger
- Rugged construction for harsh environments

### Accessories & Parts

Order No.	Description
CTU000	Stormwater Kit
01-342	Quick Release Pump Head
FQ0000	9-Channel Data Logger
FR0000	3-Channel Data Logger, USB
FH0000	Solar Panel (5 watts, 300mA minimum)

# Remote Monitoring Water Quality

Online and logging

## Water Quality Monitoring Systems



### WQMS Water Quality Monitoring System

Allows you to monitor multiple water quality parameters with a fully integrated, easy to use, economical system.

#### System Includes:

Multichannel datalogger (7 analog channels and 2 digital channels) for data recording, four of our rugged 4-20 mA water quality sensors for measuring water temperature, pH, conductivity, and dissolved oxygen. You can select up to 3 more analog sensors and up to 2 digital sensors to monitor additional parameters.



**Water Quality  
Management System  
Datalogger**

#### WQMS Features

- Monitor temperature, DO, pH, conductivity, and 5 additional parameters at the same time
- High quality, rugged sensors
- Battery powered for remote locations
- User-friendly Windows™ and Windows CE-based PDA software included
- Four sample modes: timed, 10 times per second, logarithmic, and exception composite samples
- Both USB and serial communication ports
- Rugged, lockable, weather resistant enclosure

#### Accessories

Order No.	Description
FQ0500	Modem Package
DFJ000	Turbidity Sensor, 25 ft cable
DE0000	Redox/ORP Sensor, 25 ft cable
AIB025	Water Level Sensor, 15 ft range, 25 ft cable
EJ0000	Rain Gauge 6 inch
EK0000	Rain Gauge 8 inch
FN0000	Smart Charger
FH0000	Solar Panel (5 watt)
Storm3-00	Datalogger WiFi, Web Browser Interface
Storm3-05	Datalogger GSM-3G Cellular International

### STORM 3 The Browser-Based Data Logger

The Storm 3 is a highly versatile data logger, controller, and transmitter with an excellent cost-to-performance ratio. Communicate through cellular modems using a balanced set of inputs for analog, digital I/O, and SDI-12 smart sensors. Easily configure and collect data wirelessly using the browser-based graphical user interface with all standard web browsers on PCs, tablets, and smart phones.

- Built-in Sensor Library
- Browser-based Graphical User Interface (GUI)
- Direct or Wireless Connection for GUI



#### STORM Central

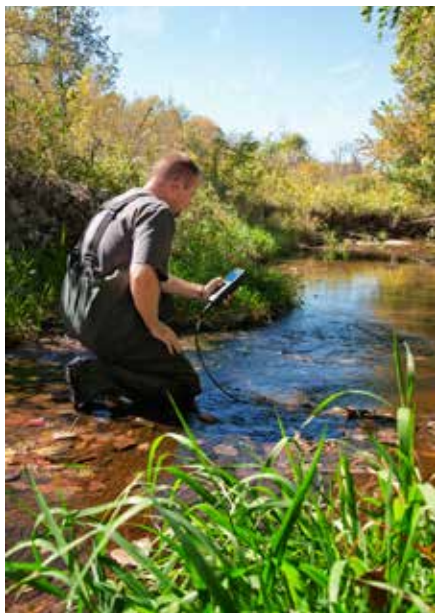
How does 24/7 access to your data sound? Storm Central is a cloud hosted data collection platform allowing you to view and download your Storm 3 site data anytime, anywhere in real-time.

Sensor Summary



Sensors

	WQ101 1	WQ201 2	WQ-Cond 3	WQ401 4	WQ-FDO 5	WQ730 6	WQ750
Features							
4-20 mA output	●	●	●	●	●	●	
Fully encapsulated electronics	●	●	●	●	●		
Marine grade cable with strain relief	●	●	●	●	●	●	
Stainless steel housing (guard sold separately)		●		●	●	●	
Replaceable element		●		●	●		
Uses optical technology					●	●	
1 year warranty		●	●	●	●	●	



Introduction to Water Quality Monitoring

Water quality is degraded when pollutants cause conditions to exceed an aquatic system’s ability to balance the changes. Two major categories are: ‘point source’ pollutants from specific sources such as industrial pipes and ‘diffuse land-based non-point source’ pollutants carried to water bodies by runoff.

To identify, control, and remediate pollutants, water quality monitoring can occur continually at fixed sites to characterize waters and identify changes over time; at select sites on an as-needed basis to identify specific conditions; on a temporary basis to identify emerging problems; at random sites to gather information for broad programs; or in emergencies to respond to spills. Increasingly, monitoring is aimed at determining the condition of entire watersheds to address the impact of non-point source pollutants.

Collected and shared data informs pollution control and remediation plans, especially for watershed-wide decision-making. The EPA’s STORET is one of the largest online systems for ambient water quality data. Various entities collect and enter data into the database, where raw data can be accessed. The EPA is currently updating STORET to address developing technologies and provide more flexibility for online users working with the data.

## Oxix® Dissolved Oxygen Transmitter



Oxix® Dissolved Oxygen measurement Transmitter is developed to measure dissolved oxygen in water and wastewater processes. The optical sensor has no consumable parts like membranes or chemicals, and the optical sensor is almost maintenance free. When the sensor's built in tubing connection is connected to a valved air or water line, a regular flushing of the optics can be controlled by the converter.



- Optical Fluorescence measurements
- No replacing sensor parts
- Built-in cleaning system connections and spray jet
- 3 year warranty on sensors
- Insensitive to ambient light
- Retro-kit for Danfoss Evita® oxygen meters
- Built-in data logger
- Network ready

## pHix® Compact Transmitter



The unique design of pHix Compact eliminates high impedance electrode connections and use of special hardware for mounting, and with the large surface of the pHix Compact reference junction the electrode is less sensitive to pollution. All known issues such as corrosion, moisture and oxidation due to high impedance are practically eliminated with this construction. This is one of the most user friendly pH transmitters on the market. The buffer adjustment of the pHix Compact is very easy to perform securing high repeatability.



- pHix is all-in-one electrode, fitting and transmitter device
- Powered directly from PLC (active input 12-30VDC)
- Automatic buffer sequence started via switchable handle or through tilt switch
- pHix Compact™ provides 4-20 mA
- Bright backlit display

## SuSix® Turbidity and Suspended Solids



The MJK SuSix® sensors' 6 optical windows and its patented measuring system delivers measurements from turbidity in clean drinking water to suspended solids in heavy sludge, all from only one sensor model. The ranges covered in turbidity are 0,001 to 9999 FNU / NTU / FTU and suspended solids in the range from 0,001g/l to 400 g/l.



- Easy calibration
- Strong correlation with laboratory results
- High stability
- Universal sensor
- Built-in cleaning system (option)
- Built-in logger
- Network ready



## Online Turbidity Analyzers



The Global Water TB500 series online turbidimeters are specifically designed for the continuous measurement of turbidity in filtered water, raw water, final wastewater effluent and many industrial applications. Two models of the TB500 online turbidity analyzers are available: The TB502 is a great value, providing reliable and economical online turbidity monitoring with a range of 0 to 1,000 NTUs.



- Meets USEPA method 180.1 and ISO 7027
- Range of 0 - 1000 NTU
- Simple, one-piece design
- Ultrasonic auto cleaning system, EPA accepted
- Easy to clean and calibrate
- Convenient reusable primary calibration standards

## Industrial Conductivity Transmitters



The industrial conductivity transmitter is a 4-wire 4-20 mA conductivity transmitter enclosed in a 1/8 DIN aluminum mounting enclosure. The industrial conductivity transmitter has an isolated 4-20 mA output with display on a large LCD screen powered by 115/230 VAC. The conductivity transmitter has selectable conductivity values from 19.99  $\mu\text{S}/\text{cm}$  to 199.9  $\text{mS}/\text{cm}$  via internal dip switch and jumper settings. The industrial conductivity transmitters use a 10k thermistor for 5 to 55°C values for automatic temperature compensation.

- Isolated 4-20 ma output
- Selectable Wide Measurement Range
- Automatic Temperature Compensation
- 1/8 DIN Mounting
- Adjustable Zero
- High 50/60 Hz Noise Rejection

## Online Chlorine Analyzers



Global Water's new CL500 continuous online chlorine analyzers are accurate and reliable instruments for free or total chlorine residual measurement. The online residual chlorine monitors use the reliable and economical, colorimetric DPD (N,N-diethyl-p-phenylenediamine) chemistry, proven to be the most accurate method for measuring free or total residual chlorine. With no troublesome mixing or pump components to wear out, the online chlorine analyzers provide reliable operations with minimal maintenance.



- Proven colorimetric DPD chemistry
- Reliable, low maintenance design
- Range of 0 - 10 ppm
- EPA accepted method
- User selectable sample times
- Removable sample cuvette
- Two relay outputs, plus 4-20 mA and RS-485 with Modbus
- Bright backlit display

# Handheld Water Quality

DO - BOD - EC - Turbidity - Suspended Solids

## EcoSense ODO200 Optical Dissolved Oxygen



EcoSense ODO200 is an optical-based dissolved oxygen meter ideal for DO sampling. The ODO200 Kit includes the Ecosense ODO200 meter, field cable, probe and carrying case. The ODO200 is designed for quick, accurate results in an economical platform. With a one-year instrument, probe and sensor cap warranty, waterproof case and ease-of-use, the EcoSense ODO200 will fit your needs.

Scale	
DO	: 00.0~20.0 mg/L
Saturation	: 0.0~200.0%
Parameters	
Temp, mg/L, %	
Memory	
5,000 data sets	
Digital Sensors	
Yes	

Operating Temperature	
0~60°C	
Sampling	
Yes	
Warranty	
3-year instrument; 2-year field cables; 1-year sensor cap	
Waterproof	
IP67	

## EcoSense DO/BOD Meter



The DO200A is part of the EcoSense® family of products. The DO200A dissolved oxygen instrument offers fast dissolved oxygen response times in wastewater, surface water, and aquaculture applications.

Available sensors are EPA approved for wastewater compliance reporting of BOD, CBOD, and DO.

Scale	
DOCon	: 0~20.00 ppm(mg/L)
AirDO sat %	: 0~ 200.0%
Temp	: -6~46°C
Accuracy	
DOCon	: ±0.2 ppm
AirDO sat %	: ±2%
Temp	: ±0.3°C
WorkingTemp	
0~50°	
Waterproof	
IP67	

## Portable Dissolved Oxygen Meter AM40 Meter



The meter combines the features for mobile application in the field with the precision and comfort of a laboratory meter with plain text structure menu, integrated data logging system and a rugged watertight IP 65 housing. The meter in connection with the sensor indicates the mass concentration of dissolved oxygen in aqueous solutions in mg/l and the oxygen saturation index (%-saturation) . With automatic temperature compensation.

Measurement range	
DO Con	: 0 ... 20 mg/l;
Saturation	: 0 ... 200 %;
Temperature	: -10 ... 100 °C
Ambient temperature	-10 ... 55 °C
Power supply	
(3 x AA, IEC R6, LR6, 1.5 V)	
Weight & dimensions	
200 x 95 x 40 mm (WHD)	
290 g incl. batteries	

## Ecosense EC300A



Simple, affordable one-handed operation for a multitude of applications to measure conductivity, specific conductance, salinity, TDS and temperature.



### Scale

Conductivity: 0.01  $\mu$ S~200.0mS  
Sal: -0.0~70.0 ppt  
Temp: -10~+90°C

### Accuracy

Conductivity:  $\pm(1\%+2\mu\text{S}/\text{cm})$ ,  $\pm(1\%+5\mu\text{S}/\text{cm})$ ,  
 $\pm(1\%+0.05\text{mS}/\text{cm})$ ,  $\pm(2.5\%+0.5\text{mS}/\text{cm})$   
Sal:  $\pm 0.2\%$ FS  
Temp:  $\pm 0.2^\circ\text{C}$

### Weight& Dimensions

78(W) $\times$ 184(D) $\times$ 37(L)mm,  
272g

### Waterproof

IP67

## Ecosense EC30A



The Ecosense Pen series is the perfect instrument for economical spot sampling EC and temperature in applications



### Scale

Conductivity: 0.0  $\mu$ S ~ 19.90 mS  
Temp: 0.0 ~ 99.5 °C

### Accuracy

Conductivity:  $\pm 1\%$  FS  
Temp:  $\pm 0.5^\circ\text{C}$

### Memory

50 Point Memory

### Waterproof

IP67



## Portable Cond/Salinity Meter LF40 Meter



The meter combines the features for mobile application in the field with the precision and comfort of a laboratory meter with plain text structure menu, integrated data logging system and a rugged watertight IP 65 housing. The TM 40 has an automatic temperature compensation for the pH measuring as well as an adjustable reference temperature with measurements without temperature sensor.

### Measurement range

Range: EC 0 ... 200  $\mu$ S/cm; 0 ... 2000  $\mu$ S/cm; 0 ... 20 mS/cm;  
0 ... 500 mS/cm TDS: 0 ... 200 mg/l; 0 ... 2000 mg/l; 0 ... 20  
g/l; 0 ... 500 g/l; salinity: 0 ... 70 g/kg;  
Temperature: -10 ... 100 °C

### Power supply

(3 x AA, IEC R6, LR6, 1.5 V)

### Weight & dimensions

200 x 95 x 40 mm (WHD)  
290 g incl. batteries

## Portable Turbidity Meter



The Global Turbidity Meter is a highly accurate device with a fully submersible sensor for in-situ environmental or process monitoring. The meter is provided with a padded carrying case and 25' of marine grade cable, with lengths up to 100' available upon request.

### Measurement ranges

Sensor=0-50 NTU and 0-1000 NTU;  
Meter=0-50 NTU or 0-1000 NTU selectable

### Output

4-20mA (Sensor, both ranges), LED screen  
(Meter)

### Cable Length

Sensor=25 ft standard (optional to 500 ft)

### Accuracy

+ 1% of full scale

### Operating Voltage

10-36 VDC @ 40 MS (Sensor); Internal 9VDC  
battery (Meter)

### Weight & dimensions

Body= 1 1/2 x 8.5 inches (3.8 x 21.6 cm) (Dia  
x Length)  
11lb (454 g) (Sensor); 2 lbs (907 g)  
(Meter+sensor)

## Suspended Solids



### Measurement range

.01 - 10 grams per liter (10 to  
10,000 mg/l)

### Reproducibility

$\pm 1\%$  of reading or  $\pm 20$  mg/l,  
whichever is greater

### Accuracy

$\pm 5\%$  of reading or  $\pm 100$  mg/  
l, whichever is greater

The Royce Model 711 Portable Suspended Solids/ Interface Level Analyzer is a rugged, waterproof instrument designed for the rigors of remote sampling. The meter provides reliable operation in waste treatment plants, rivers, lakes and other aqueous systems. The meter will read in either grams per liter when in the suspended solids mode or relative density percentage while in the interface level mode of operation.

# Handheld Water Quality

pH-ORP-Photometry



## EcoSense pH100A pH Meter



The low overall cost of ownership includes an economical list price, competitively priced probes compared to other manufacturers, and rugged, reliability limiting down time. Designed specifically for spot sampling applications, the pH100A meter will fill the need for simple, one-handed operation instrumentation.

### Scale

pH: -2~16  
Temp: -5~+125°C  
ORP: -1500~+1200mV

### Accuracy

pH:  $\pm 1\%$   
Temp:  $\pm 0.3^\circ\text{C}$   
ORP:  $\pm 0.1\%$

### Weight & Dimensions

78(W)×184(D)×37(L)mm,  
272g

### Resolution

0.01  
0.1°C  
1mV



## Portable pH/MV/ISE Meter AM40 Meter



The meter combines the features for mobile application in the field with the precision and comfort of a laboratory meter with plain text structure menu, integrated data logging system and a rugged watertight IP 65 housing.

### Measurement range

Range: pH 0 ... 14; - 1999 ... 1999 mV  
Temperature: - 10 ... 100 °C  
ISE: 0 ... 30000 ppm  
Resolution: 0.01 pH; 1 mV; 0.1 °C

### Power supply

(3 x AA, IEC R6, LR6, 1.5 V)

### Weight & dimensions

200 x 95 x 40 mm (WHD)  
290 g incl. batteries

## Ecosense pH/ORP pens

pH10A / ORP15A



The Ecosense Pen series is the perfect instrument for economical spot sampling of pH/ORP/EC and temperature in a wide range of applications.



### Scale

pH: pH0.00~14.00  
Temp: 0.0~99.9°C  
ORP: -1200~1200mV  
Temp: 0.0~99.9°C

### Accuracy

pH:  $\pm 0.02$ ,  $\pm 1\text{LSD}$ .  
Temp:  $\pm 0.3^\circ\text{C}$   
ORP: 1mV,  $\pm 1\text{LSD}$   
Temp:  $\pm 0.3^\circ\text{C}$

### Waterproof

IP67

### Memory

50 Point Memory

## Ecosense pH/EC pens

pH/EC1030A



The Ecosense Pen series is the perfect instrument for economical spot sampling of pH/EC and temperature in a wide range of applications.



### Scale

Conductivity: 0.0  $\mu\text{S}$  ~ 19.90 mS  
Temp: 0.0 ~ 99.5 °C  
pH: pH0.00~14.00  
Temp: 0.0~99.9°C

### Accuracy

Conductivity:  $\pm 1\%$  FS  
Temp:  $\pm 0.5^\circ\text{C}$   
pH:  $\pm 0.02$ ,  $\pm 1\text{LSD}$ .  
Temp:  $\pm 0.3^\circ\text{C}$

### Waterproof

IP67

### Memory

50 Point Memory



## Photometer



The YSI 9300 and YSI 9500 are economical photometers in small packages for any application. These portable photometers allow you to easily take readings directly in the field for 100+ parameters. Selecting the desired test has never been easier. Simply choose among the list of available tests on the large graphic display and the instrument will walk you through the test procedure - it's that easy! Simple. Convenient. Accurate.

Accuracy
±0.5% at 4% transmittance; ±0.005 at 0.3 AU
Resolution
0.001AU
Wavelength
450, 500, 550, 575, 600, 650 nm
Display
Graphic, backlit LCD with on-screen instructions
Waterproof
IP 67
Power
3x AA batteries; the 9500 can also be powered via USB

## 910 COD Colorimeter



The 910 colorimeter is a rugged, waterproof, single parameter instrument for the measurement of COD (chemical oxygen demand).

The EPA-approved COD test is useful for performing rapid, frequent monitoring of treatment plant efficiency, and results allow quick response to changing conditions in the waste stream while the traditional BOD5 test takes 5-days to determine results.

Measurement
COD Low Range: 0 to 150 mg/L, COD Mid Range: 0 to 1,500 mg/L, COD High Range: 0 to 15,000 mg/L
Unit of Measure
mg/L
Power supply
AC100V, 50/60Hz
Weight & Dimensions
310(W)×270(D)×300(H)mm Approx 5kg

## 900 Chlorine Colorimeter



The 900 colorimeter is a rugged, waterproof, single parameter instrument for the measurement of Total chlorine or Free chlorine. Whether you need to measure chlorine in wastewater, chlorine in groundwater, or in pools, this chlorine tester is waterproof with an easy to read display and will provide readings in minutes.

Measurement
Chlorine Free: 0.02~2.0 mg/L Chlorine Total: 0.1~8.0 mg/L
Unit of Measure
mg/L
Power supply
AC100V, 50/60Hz
Weight & Dimensions
310(W)×270(D)×300(H)mm Approx 5kg

# Benchtop Water Quality

DO - BOD - EC - pH - ISE and Calibration solutions



## Ecosense pH1000A



Measure pH, mV (ORP) and temperature accurately in the laboratory with the EcoSense pH1000A. This benchtop instrument for basic, routine measurements in the lab is an accurate and easy-to-use solution for repeatable pH or mV measurements.

- Measures pH, mV (ORP), and temperature
- Large, high-contrast, LCD display
- Simple 1, 2, or 3 point calibration
- Accepts U.S. (7.00, 4.01, 10.01) or NIST (6.86, 4.00, 9.18) buffer sets

Scale	
pH	: -2~16.00 pH units
mV	: -1,999~ 1999.9
Temp	: 0~50°C

Display & Power	
Graphic LCD display	
6 X 1.5V AA Batteries or the included power supply	

Measurement parameters	
pH, mV (ORP), Temperature	

Warranty	
1 year instrument, 6 months probe	

## Lab Benchtop EC pH/ORP & ISE

SI Analytics<sup>®</sup>



Lab 855



Lab 875P

The Lab line includes the 855 (single channel), 875 and 875P (single channel) instruments providing easy-to-use and calibrate instruments ideal for the laboratory.

Parameter	
pH/ORP (mV)/ISE (Ammonia/Ammonium/Bromide/Cadmium/Calcium/Chloride/Iodide/Copper/Cyanide/Fluoride/Lead/Nitrate/Potassium/Silver/Sulfide/Sodium) /Temp	
pH	
Scale : -2.0-20.0 ; -2.00-20.00 ; -2.000-19.999 Resolution : 0.1 ; 0.01 ; 0.001 Accuracy : ±0.1 ; ±0.01 ; ±0.05 ( Sample temp 15~35°C )	
ORP (mV)	
Scale : -1200 ~ 1200.0 ; -2500~2500 Resolution 0.1 ; 1.0 Accuracy ±0.3 ; ±1.0 ( Sample temp 15~35°C )	
ISE	
(mol/L, mmol/L, ppm, %) Scale : 0.000~9.999; 10.00~99.99; 100.0~999.9 1000~999999 Resolution : 0.001 ; 0.01 ; 0.1 ; 1 (µmol/L) Scale : 0.000~9.999; 10.00~99.99; 100.0~999.9; 1000~9999 Resolution : 0.001;	
Temp	
Scale : -5~105°C Resolution : 0.1 Accuracy : ±0.1	

## Lab 2/3 channel Instrument

SI Analytics<sup>®</sup>

The Lab 2500 instruments can accurately measure pH, ORP, conductivity, and DO/BOD in the laboratory. In addition, ISEs can be connected to the ProLab 2500



Parameter	
pH, ORP (mV), DO %, DO mg/L (BOD Probe), Pressure, Conductivity, Sal, TDS, Temp, ISE	
Channel	
2 (4010-2), 3 (4010-3)	
Data storage	
Manual : 500 Points Logging : 10,000 Points (4010-2, 4010-3)	
Interface	
Colour Graphic Display	
Connector	
Mini USB ; USB-A	
Temp correction	
Yes, (except ORP)	

Keypad	
Antibacterial	
Power	
Universal power supply	
Calibration points	
DO, Conductivity = 1 ; pH = 1 ~ 5	
Calibration history	
Max10	
Calibration reminder	
1 ~ 999 days user defined	
Certifications	
CE, cETLus	
GLP Compliance	
Yes	

	Part #	Solution
<b>pH</b>	108800	pH 4.01 Buffer, 250 ml bottle
	108802	pH 7.00 Buffer, 250 ml bottle
	108804	pH10.00 Buffer, 250 ml bottle
	108823	Set: Includes 3 bottles with 250 ml each 4.01/7.00/10.00, and 1 bottle of 250 ml KCl solution 3
<b>Conductivity</b>	300580	KS 5 $\mu\text{S}/\text{cm}$ , accuracy $\pm 2\%$ calibration standard
	300578	KS 100 $\mu\text{S}/\text{cm}$ , accuracy $\pm 3\%$ calibration standard
	300572	Set: Includes 6 bottles with 50 ml calibration and control standard each, KCl
	0.01 M/l traceable to PTB/NIST.	
<b>(Benchtop)</b>	302870	Set: Includes test set for checking all conductivity meters with waterproof
	8-pin socket according to ISO 9000.	
	285126503	LF 990 147 $\mu\text{S}/\text{cm}$ Conductivity Solution, 3x6 ampoules. Potassium chloride 0.001
	285126511	LF 991 1.41 mS/cm Conductivity Solution, 3x6 ampoules. Potassium chloride 0.01
	285126528	LF 992 12.9 mS/cm Conductivity Solution, 3x6 ampoules. Potassium chloride 0.1
	285126293	LF 995 1.41/12.9/112 mS/cm Conductivity Solution, 3x6 ampoules.
		Potassium chloride 0.01/0.1/1
<b>Dissolved Oxygen</b>	285138287	Zero point solution for oxygen electrodes OX 1100/OX 1100+. 60 FIOLEX® 20 ml
<b>Turbidity</b>	02-003	Standard, 0.0 NTU Turbidity, 1 L
	02-004	Standard, 50 NTU Turbidity, 1 L
	02-005	Standard, 100 NTU Turbidity, 1 L
	02-006	Standard, 1000 NTU Turbidity, 1 L
All Turbidity standards EPA approved primary standard for calibration of turbidity sensors that is safe, non-toxic and disposable.	02-009	Standard, 0.0 NTU Turbidity, 1 Gal
	02-010	Standard, 50 NTU Turbidity, 1 Gal
	02-011	Standard, 100 NTU Turbidity, 1 Gal
	02-012	Standard, 1000 NTU Turbidity, 1 Gal
<b>ORP</b>	285138373	180 mV Pt/Calomel, 220 mV Pt/Ag/AgCl 60 FIOLEX® ampoules 20 ml
	285138357	430 mV Pt/Calomel, 470 mV Pt/Ag/AgCl 60 FIOLEX® ampoules 20 ml
	285138381	600 mV Pt/Calomel, 640 mV Pt/Ag/AgCl 60 FIOLEX® ampoules 20 ml
	285138784	Set: 180, 430, 600 mV Pt/Calomel, 220, 470, 640 mV Pt/Ag/AgCl 3x 60 FIOLEX®
	ampoules 20 ml	
	285138184	430 mV Pt/Calomel, 470 mV Pt/Ag/AgCl 1000 ml in DURAN® glass bottle
	285138168	430 mV Pt/Calomel, 470 mV Pt/Ag/AgCl 250 ml in DURAN® glass bottle

## Photometer Reagents



Parameter	Scale	Starter pack (50 test) Kit	(250 test) Kit
Alkalinity, Total (Alkalphot)	0~500 (CaCO <sub>3</sub> )	YPM188	YAP188
Alkalinity-M (Alkalphot M)	0~500 (CaCO <sub>3</sub> )	YPM250	YAP250
Alkalinity-P (Alkalphot P)	0~500 (CaCO <sub>3</sub> )	YPM251	YAP251
Aluminum	0~0.5	YPM166	YAP166
Ammonia Ammonia	0~1.0 (N)	YPM152	YAP152
Bromine	0~10.0	YPM060	YAP060
Calcium Hardness (Calcicol)	0~500 (CaCO <sub>3</sub> )	YPM252	YAP252
Chloride Chloride (Chloridol)	0~50,000 (NaCl)	YPM268	YAP268
Chlorine DPD 1	0~5.0	YPM011	YAP011
Chlorine DPD 2	0~5.0	YPM021	YAP021
Chlorine DPD 1&3	0~5.0	YPM031	YAP031
Chlorine DPD 4	0~5.0	YPM041	YAP041
Copper Copper (Coppercol)	0~5.0	YPM186	YAP186
Color (includes turbidity)	10~500	YPM269	N/A
Air Cyanuric Acid	0~200	YPM087	YAP087
Fluoride Fluoride	0~1.5	YPM179	YAP179
Hardness (Hardicol)	0~500 (CaCO <sub>3</sub> )	YPM254	YAP254
Hydrazine	0~0.5	YPM103*	YAP103
Hydrogen Peroxide LR	0~2	YPM104	YAP104
Hydrogen Peroxide HR	0~100	YPM105	YAP105
Iron LR	0~1.0	YPM155	YAP155
Iron MR	0~5.0	YPM292	YAP292
Iron HR	0~10	YPM156	YAP156

Parameter	Scale	Starter pack (50 test) Kit	(250 test) Kit
Magnesium (Magnecol)	0~100	YPM193	YAP193
Manganese	0~0.03	YPM173	YAP173
Molybdate LR	0~20	YPM258	YAP258
Molybdate HR	0~100	YPM175	YAP175
Nickel	0~10	YPM284	YAP284
Nitrate	0~20 (N)	YPM163	YAP163
Nitrite (N)	0~0.5 (N)	YPM109	YAP109
Sodium Nitrite (NaNO <sub>2</sub> )	0~1,500 (NaNO <sub>2</sub> )	YPM260	YAP260
Organophosphonate (OP)	0~20 (PO <sub>4</sub> )	YPM262	YAP262
Ozone	0~2.0	YPM056	YAP056
pH (phenol red)	6.8~8.4	YPM130	YAP130
Phenol	0~5.0	YPM287	YAP287
Phosphate LR	0~4.0	YPM177	YAP177
Phosphate HR	0~100	YPM114	YAP114
Potassium Potassium	0~12	YPM189	YAP189
Silica	0~4.0	YPM181	YAP181
Sulphate	0~200	YPM154	YAP154
Sulphide	0~0.5	YPM168	YAP168
Sulphite	0~500 (Na <sub>2</sub> SO <sub>3</sub> )	YPM266	YAP266
Lead Zinc	0~4.0	YPM148	YAP148

\*Includes 30 tests \*\*Includes 150 tests \*\*\*Includes 200 tests. 1 Sample may be diluted to lower salt content to help avoid precipitate that can interfere with testing. Results may vary. 2 LR denotes low range 3 HR denotes high range

# Why Measure Weather?

## Why Measure Barometric Pressure?

Barometric pressure sensors, such as Global Water's WE100, measure changes in barometric pressure, which indicate the movement of weather fronts. Low pressure areas have less atmospheric mass above their location, whereas high pressure areas have more atmospheric mass. Similarly, as elevation increases, there is less overlying atmospheric mass, so pressure decreases. Barometric pressure is typically reported in millibars (mbar) or inches of mercury (inHg). Most weather stations include barometric pressure sensors. Barometric pressure transmitters are also used for ocean buoys, ships, engines, airports, and more. In addition, barometric pressure sensors can be used to ensure accurate water level readings for non-vented water level sensors.

## Why Measure Solar Radiation?

Solar radiation is radiant energy emitted by the sun. Solar radiation drives atmospheric circulation and accounts for almost all of the energy available to the earth. There are two ways solar radiation reaches the Earth: via direct radiation through the atmosphere, and via diffuse radiation that is scattered or reflected to the Earth's surface. Pyranometers like Global Water's WE300 measure the total of direct and diffuse solar radiation. Solar radiation is monitored for many applications including climate analyses, energy cycle studies, solar energy, photobiological research, and more. Solar radiation is typically expressed in watts per square meter (W/m<sup>2</sup>) or joules per square meter (J/m<sup>2</sup>).

## Why Measure Wind Speed/Direction?

Wind speed and direction are determined by air pressure gradients, or the regions between weather fronts, as air moves in the direction of a low pressure system. The steeper the gradient, the stronger the wind. In addition, wind speed and direction are determined by many other factors including the Coriolis effect, friction, and land topography. In the US, wind speed is typically reported in meters per second or miles per hour. For shipping or boating, wind speed can be reported in knots (a knot equals one nautical mile per hour or approximately 1.15 miles per hour). Wind direction is always stated as the direction the wind is coming from. For example, a wind out of the east is given as an east wind, with a wind direction of 90 degrees. Wind speed sensors, such as Global Water's WE550, and wind direction sensors, such as Global Water's WE570, are used for many applications, including: meteorology, aviation, shipping, industry, construction, and more. Specifically, wind speed and direction data are often used to predict weather forecasts, determine the safety of operating mechanical equipment like cranes and lifts, estimate the efficiency of wind power generation, safely operate ships and aircraft, and control odor from wastewater treatment and landfill sites.



### Why Measure Relative Humidity?

Air moisture content is typically described by a relative humidity measurement. Relative humidity is the ratio of the water vapor content in the air to the highest possible concentration of water vapor that the air can hold. A reading of 100 percent relative humidity means that the air is totally saturated with water vapor and cannot hold any more, creating the possibility of rain. The amount of water vapor that the air can hold increases with temperature, therefore relative humidity will decrease with increasing temperature if the actual amount of water vapor stays the same. Relative humidity can cause effects such as discomfort in people and animals, damage of materials in storage facilities, reduced production capacity, degradation of construction materials, and more. Relative humidity readings made by instruments such as Global Water's WE600 allow people to prepare for and control these effects.

### Why Measure Temperature?

Air temperature is measured for numerous applications. Temperature is affected by solar radiation, latitude, the movement of air masses, and nearby bodies of water or land. Temperature is measured in degrees Celsius or Fahrenheit. To accurately measure temperature, a temperature sensor like Global Water's WE700 should be shielded from direct sunlight and precipitation and should be adequately ventilated.



# Weather Stations

WE 800 & WE900 Weather stations

## WE800 Weather Station



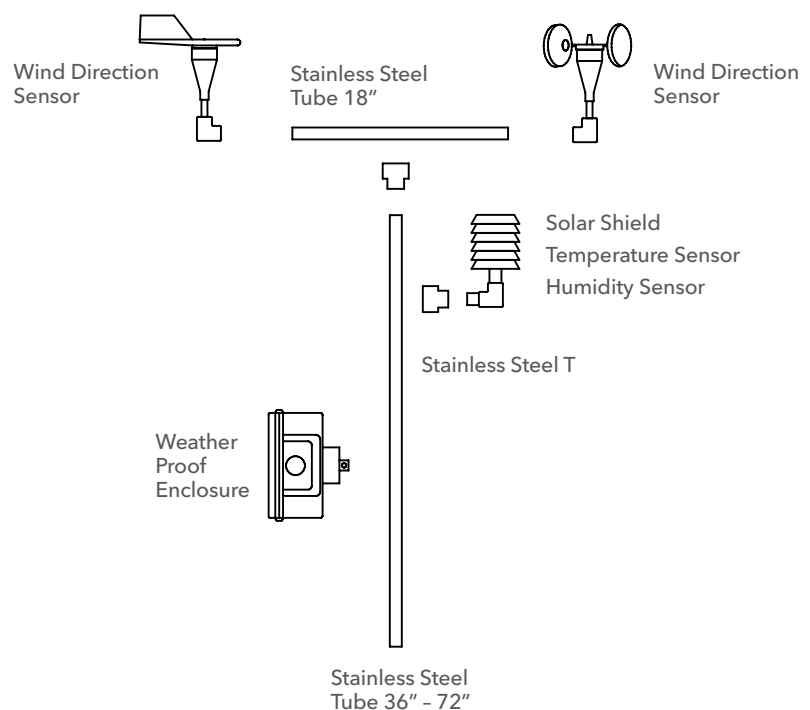
The WE800 weather station comes integrated with our multichannel datalogger for weather data recording and reporting. The system includes four rugged 4- 20 mA sensors for measuring wind speed, wind direction, temperature, and humidity. You can customize your station by adding additional sensors to monitor barometric pressure, solar radiation, leaf wetness, evaporation, rainfall, and more.



### Features

- 7 analog channels and 2 pulse channels
- Datalogger enclosed within a sturdy weatherproof case
- Storing data and setting options made easy through user friendly software (included)
- View real-time data via computer software or download recorded data to your computer
- 12VDC 2A-H rechargeable battery
- Easy operation and fully assembled
- USB and serial communication ports

### Weather Station Diagram





**WE900**  
Weather Station

## WE900 Weather Station

The WE900 is a 4- 20 mA station that you can easily integrate with your existing data recording or control system. Like the WE800 the 900 comes with 4 rugged 4- 20 mA sensors for measuring speed, wind direction, temperature, and humidity.

**Ideal for agriculture, education, environmental studies, landfills, reclamation, wastewater facilities, water conservation, and more.**

### Features

- Easy integration junction box
- 1 inch stainless steel tube mounting frame
- Customize to meet your needs

## Accessories for WE800-900

### Weather Stations

Order No.	Description
EI0000	Mounting Tripod
EA0000	Barometric Pressure Sensor
EB0000	Solar Radiation Sensor
EFA000	Surface Temperature Sensor
EP0000	Leaf Wetness Sensor
EM0000	Soil Moisture Sensor

EN0000	Evaporation Pan
AIA025	Water Level Sensor (3 ft range, 25ft cable)
EJ0000	Rain Gauge, 6 in
EK0000	Rain Gauge, 8 in
FN0000	Smart Charger
FH0000	Solar Panel (5 watt)
FVE000	Wireless Communication
FM1000	Satellite Internet Telemetry



**WE100**  
Barometric Sensor

## WE100 Barometric Sensor

Highly accurate barometric pressure sensor that covers a pressure range from 800 to 1100 mb (23.6 to 32.5 inHg).

### Features

- Accurate 4-20 mA output
- Marine grade cable with strain relief



**WE300**  
Solar Radiation  
Sensor

## WE300 Solar Radiation Sensor

A solar radiation sensor that is a precision pyranometer that uses a high stability silicon photovoltaic detector to obtain accurate readings.

### Features

- Accurate 4-20 mA output
- Marine grade cable with strain relief
- Precision mounting equipment included

# Meteorological Sensors

Pressure - Solar Radiation/Shield - Wind speed/direction - Humidity  
Rainfall & Evaporation Monitoring

## Met Sensors



**WE550**  
Wind Speed  
Sensor

### WE550 Wind Speed Sensor

Highly accurate wind sensor that is constructed of high-impact materials, ensuring durability and ruggedness in severe weather conditions

#### Features

- Fully encapsulated electronics
- Accurate 4-20 mA output
- Marine grade cable with strain relief



**WE570**  
Wind Direction  
Sensor

### WE570 Wind Direction Sensor

Wind direction sensor designed to accurately measure wind direction even in the harshest environments.

#### Features

- Fully encapsulated electronics
- Accurate 4-20 mA output
- Marine grade cable with strain relief



**WE600, 700, 770**

### WE600 Humidity Sensor

A humidity sensor that is accurate and long-lasting, composed of a solid state capacitive element with a linear amplifier.

#### Features

- Accurate 4-20 mA output
- Marine grade cable with strain relief
- Fully encapsulated electronics
- Protective solar shield optional (WE770)

### WE700 Temperature Sensor

A precise and durable temperature sensor, precision RTD calibrated to US National Standards.

#### Features

- Accurate 4-20 mA output
- Marine grade cable with strain relief
- Precision mounting equipment included



WE710

## WE710 Surface Temperature

### Features

- Accurate 4-20 mA output
- Marine grade cable with strain relief
- Mounts flush to measure surface temperature

## WE770 Solar Shield

### Features

- Ventilated sun shield with high reflectiveness
- Low heat retention
- Protects the humidity and temperature sensors from direct sunlight to ensure accuracy



RG200

## Rainfall Monitoring

Global Water's RG200/RG600 Tipping Bucket Rain Gauges are durable, accurate instruments. For each 0.01 inch or 0.25 mm of rainfall through the six or eight inch orifice, the sensor mechanism activates a sealed reed switch that produces a contact closure.



RG600

## RG600

### Features

- Constructed of anodized aluminum
- Reliable, highly accurate, and simple to operate
- Rugged and long lasting

## RG200

### Features

- Constructed of high impact UV-resistant plastic
- Reliable and highly accurate
- Simple to operate
- Ships with mounting brackets and 40 ft of two-conductor cable

## Evaporation Monitoring

### EP180

Global Water's EP180 Evaporation Pan is built to be compatible with all standard National Weather Service evaporation pan measurements: it is ten inches deep and has an inside diameter of 47½ inch.



EP180

### Features

- Rugged stainless steel pan
- Compatible with standard National Weather Service measurements
- Use with our sensors and dataloggers to establish a complete monitoring system

### Accessories

Order No.	Description
AIA025	Water Level Sensor (3 ft range, 25ft cable)
ARA025	USB Water Level Logger (3 ft range)

EJ0000	Tipping Bucket Rain Gauge, 6 in
EK0000	Tipping Bucket Rain Gauge, 8 in
FQ0000	9 Channel Global Logger
FR0000	3 Channel USB Global Logger
FS0000	3 Channel USB Serial Global Logger
EH0000	Weather Station with Datalogger
ER0000	4-20 mA Weather Station

## Remote Monitoring and Controllers



### GL500-2-1

Three channel Datalogger for data recording. Features 2 analog channels and 1 digital channel for recording data. Ability to record over 81,000 readings in four unique recording options. Windows™ compatible. Includes Windows™ Global Logger II software for easy access and storage of data.



GL500-2-1

#### Accessories

Order No.	Description
FB0155	Water resistant Enclosure

\*Compatible only with GL500S-2-1 serial version.

### GL500-7-2

Multichannel Datalogger for Recording a variety of sensor signals. Features 7 analog channels and 2 digital channels for data recording. Ability to record over 40,000 readings in four unique recording options. Logger offers USB and RS-232 communication ports for easy communication with included Global Logger II software.



GL500-7-2

#### Accessories

Order No.	Description
FE0850	Water resistant Enclosure <sup>1</sup>
FL0000	Single Channel Display for Enclosure*
FH0000	Solar Panel (5 watt)
FN0000	Smart Charger



# Autodialers for easy alarm notification.

## AD200-4 / AD200-1 Voice Autodialer

Provide cost-effective notification of emergency conditions such as high water levels, equipment failures, and security breaches. Requires a land line.

### Features

- Records your own voice message for each alarm input
- Calls up to eight numbers in any combination of telephones or pagers
- Sends voice message to phones or numeric code to pagers
- Easy to install and program
- Non-volatile memory protects program against power failures
- Programmable exit and entry delay
- Internal 9V battery backup (AD200-1)
- Three-year limited warranty



**AD200**

### Accessories

Order No.	Description
01-486	Backup Power Pack for AD200-4
01-485	Extra AC Adapter
01-489	Door Switch, heavy duty magnetic
FE1000	Optional Enclosure
AD0000	Water Alarm Sensor, 25 ft cable
AQF000	Float Switch, 20 ft cable

## CVD-2000 Cellular Voice Autodialer USP

Perfect for Residential, Commercial or Industrial applications. Designed for direct, immediate notification of emergency situations. Can be installed anywhere, no landline required.

### Features

- Alarm notification anywhere there is cell phone service
- Fast, simple installation
- No cell phone contract required
- Includes up to 400 minutes of prepaid cellular service
- Weather resistant enclosure included



**CVD-2000**

### Accessories

Order No.	Description
FA0300	AD200-4 autodialer, cellular phone, 400 prepaid minutes, and AC adapter
FA0350	AD200-4 autodialer, cellular phone, and AC adapter
00-010	12V 5AH rechargeable Battery
FN0000	Smart Charger Maintain constant battery voltage and increase battery life
FH0000	Solar Panel (5 watt)

# Communication

## SIT70 Satellite

An easy and economical way to collect environmental data remotely. The remote satellite telemetry system uses the latest satellite and Internet technologies to bring data to your computer in near real time. The satellite internet telemetry system includes a data transmitter and a rechargeable battery enclosed in a rugged, rain proof, and lockable enclosure; a ground-to-satellite antenna; and mounting hardware.

### Features

- Remote data and control anywhere – guaranteed!
- Receive data by internet on your computer
- Near real time spreadsheet data and control
- Alarms by text to your cell phone or email
- Interface to almost any sensor
- Easy installation – just install antenna and turn it on
- Low cost/economical
- Solar, battery, or AC power

### Accessories

Order No.	Description
<a href="#">FVX100</a>	<a href="#">Solar Panel Mounting Kit</a>
<a href="#">FH0000</a>	<a href="#">Solar Panel (5 watt)</a>
<a href="#">FN0000</a>	<a href="#">Smart Charger</a>
<a href="#">00-009</a>	<a href="#">12V, 2.2 Ahr Battery for Datalogger</a>



SIT70



4015

## 4015 Converter

Provides a highly accurate interface between an SDI-12 serial communications bus and an analog measurement system. The converter can either act as a SDI-12 master by polling a sensor on a timed basis, or it can act as a “listen only” external recorder that polls the sensor. High conversion accuracy. DIN rail mountable.



4046

## 4046 Converter

Provides a highly capable interface to convert inputs from two analog sensors and one pulse counter to an SDI (serial data interface). The 4046 also provides internal measurements of battery voltage and ambient temperature. Programmable slopes and offsets. DIN rail mountable.

# Weather Station Installation



## Weather Station Installation

Global Water's WE800 and WE900 Weather Stations include full assembly on a sturdy and durable 1 inch diameter, 6 ft tall, and 3 ft wide stainless steel tube frame. The Weather Station frame is designed for durability and endurance in harsh conditions. The wind direction and wind speed sensors are coupled to the frame's T-mounting bar, and the temperature and humidity sensors are installed within a solar shield, which includes a stainless steel elbow coupler for easy mounting to the frame.

You can mount the weather station frame onto an existing base, or you can select the optional WE830 Weather Station Tripod to set up an upright installation (see Ordering & Options). The WE770 solar shield is included with the WE800 and WE900 Weather Stations to protect the temperature and humidity sensors. This shield is a ventilated sun shield with high reflectiveness, low heat retention, and low thermoconductivity. Global Water recommends using the shield to protect the temperature and humidity sensors from the sun, as these sensors will not read accurately if exposed to direct sunlight.

Proper siting for your weather station sensors is important to ensure accurate readings. For example, the wind speed and direction sensors should not be installed too close to a building, as turbulence created by the building can interfere with readings. The optional solar radiation sensor should be installed in direct sunlight on a level surface (bubble level and leveling screws are included).



WTW Online offers a comprehensive range of water quality parameters from the standard physio-chemical through to the optical determination of carbon and nitrogen parameters to the range of chemical analysers for nutrient based determination.

#### Core product lines

- Online and portable water quality instruments
- UV/Vis, spectrophotometers



Global Water, founded in 1990, is a manufacturer, distributor, and systems integrator of water instrumentation serving the water, wastewater, and environmental markets.

#### Core product lines

- Water level and flow
- Samplers
- Water quality



Offers analytical instruments that detect, measure, analyze and monitor chemicals in liquids, solids and gases and products used to digest, extract and separate components of chemical mixtures.

#### Core product lines

- TOC, Online/Labatory
- Purge and Trap
- Flow solutions



## SI Analytics®

The manufacturer of titrators, viscosity measuring systems, extensive line of glass capillary viscometers, SCHOTT® Instruments high-performance laboratory and process electrodes as well as meters for the measurement of pH, dissolved oxygen and conductivity for food and beverage, pharmaceutical and other demanding markets.

### **Core product lines**

- Titration
- Water quality sensors and monitoring equipment
- Viscometry



Primary global supplier of high quality monitoring and control instrumentation and sensors specifically designed for municipal and industrial wastewater treatment applications. Other markets in which Royce might be found are mining, pulp and paper manufacturing, chemical processing, aquaculture, and the power and steam generating industries.

### **Core product lines**

- Online and portable water quality instruments



YSI's environmental products provide high quality, high Resolution data to better understand and manage our water resources. YSI Life Science and laboratory products are considered the gold standard for QC applications. They are used for process control, research and industrial applications by food and beverage, environmental, biofuels, biotech and pharmaceutical customers.

### **Core product lines**

- Life Science analysers
- Water quality sensors and instruments



# Xylem ['zīləm]

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to [www.xylem-analytics.asia](http://www.xylem-analytics.asia)

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