



# WaterLOG® Product Guide

HYDROLOGICAL AND METEOROLOGICAL INSTRUMENTATION



# High Quality. High Accuracy. Long Lasting Products.

Our mission is to live with integrity as we devote our technology, time, and talent to providing innovative, reliable solutions with high quality measurement instrumentation, data collection, and data presentation.





United States– Rain Gauge



India– Meteorological Station



Australia–Buoy

Since 1972, we have been a world leader in water measurement technology, providing reliable equipment designed for data collection in extremely harsh environmental conditions. We take pride in providing a broad range of products.



Norway–  
Bubbler System



Panama–Dam Monitoring



Napal–Radar



United States–Stream Gage



China–Encoder

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# SYSTEMS

**WaterLOG Systems** are designed for quick and easy installation at fixed monitoring locations. These are versatile, advanced systems to measure hydrological and meteorological parameters in real-time to meet almost any compliance criteria and protect public safety. Meteorological, water velocity, quality, flow and level sensors are easily connected inside the enclosure.

**Learn More:** [waterlog.com/solutions](http://waterlog.com/solutions)



## Storm 3 Turnkey .....

- System based around our innovative Storm 3 data logger
- NEMA 4X enclosure includes battery, solar panel and antenna
- Wide variety of communication options (cellular, GOES, Wi-Fi)

## H-350XL/H-3551T Combo's .....

- Fully integrated data logger system capable of communicating through GOES/METEOSAT/INSAT satellites
- Bubbler provides the highest purge pressure in the industry (up to 90 PSI)
- Near real-time data retrieval

## Storm Water System .....

- Custom designed to your site specifications
- Data loggers initiate sampling routines based on event criteria
- Notifications when a sample has been taken based on measured event criteria and of other user set alarm criteria
- Portable and permanent systems available

## Flood Warning System .....

- Custom designed to your site specifications
- Data loggers measure and record critical parameters
- Alarm notifications are sent via text message and software display
- User selected measured parameters

## Stream Level System .....

- Rugged, high quality monitoring platforms
- Multiple sensor integration
- Transmitters capable of communicating through cellular radio GOES/METEOSAT/INSAT and commercial satellites



# DATA LOGGERS

**WaterLOG Data Loggers** provide an ideal cost-to-performance ratio. With over 20 years of experience in data logger development and support, these data loggers are designed for use by hydrologist, meteorologists, environmental scientists, and water professionals. Incorporating the latest technologies to provide a very flexible yet easy to use system, these data loggers are used throughout the world in the most rugged and unforgiving environments.

**Learn More:** [waterlog.com/data-loggers](http://waterlog.com/data-loggers)



## Storm 3 Browser Based Data Logger .....



- Supports a wide range of sensors via a balanced combination of analog, digital, and SDI-12 communication
- No PC software required. Connection of smart phone, tablet, or computer with simple, intuitive browser-based Graphical User Interface (GUI)
- Wireless (Wi-Fi) or direct (USB cable) connection
- Optional internal, built-in cell modem and/or Satellite communication for remote data retrieval

## H-500XL Basic Data Logger .....



- Supports a wide range of sensors via a balanced combination of analog, digital, and SDI-12 communication
- Built-in keypad and display for on-site menu driven setup and data viewing, no PC is required
- Communicates with GOES, METEOSAT, and INSAT satellite transmitter (H-2221) and GPRS/GSM modems for remote data retrieval

## H-350XL Basic Data Logger with Integrated Pressure Sensor .....



- Supports a wide range of sensors via a balanced combination of analog, digital, and SDI-12 communication
- Built-in keypad and display for on-site menu driven setup and data viewing, no PC is required
- Communicates with GOES, METEOSAT, and INSAT satellite transmitter (H-2221) and GPRS/GSM modems for remote data retrieval
- Built in pressure sensors provide direct connection to the H-3551 bubbler

# DATA LOGGERS

## H-522-522+ Basic Data Logger with Integrated Satellite Transmitter (DCP) .....



- Supports a wide range of sensors via a balanced combination of analog, digital, and SDI-12 communication
- The H-522+ provides a built-in keypad and display for on-site menu driven setup and data viewing, no PC is required
- The H-2221 Satellite Transmitter is built into the data logger eliminating the need for an external satellite transmitter (GOES/METOSAT/INSAT). Communicates with external satellite transmitter and GPRS/GSM modems for remote data retrieval

## H-5000 Modular Data Acquisition System .....



- Touch Screen Display for easy data viewing and menu system setup, no PC is required
- Supports a wide range of sensors via a balanced combination of analog, digital, and SDI-12 communication
- Sensor expandability with modular interface boards
- Built-in Ethernet port provides communication to industry-standard TCP/IP network
- Communicates with GOES, METEOSAT, and INSAT satellite transmitter (H-2221) and GPRS/GSM modems for remote data retrieval





# SENSORS

**WaterLOG Hydro-Meteorological Sensors** provide a full complement of options. Designed for easy connection to WaterLOG data loggers and developed for high accuracy and reliability.

Incorporate water level and meteorological sensors, along with our data logging and telemetry solutions, to create a complete early warning monitoring system with real-time alarming and alerts.

**Learn More:** [waterlog.com/water-level](http://waterlog.com/water-level)  
[waterlog.com/water-quality](http://waterlog.com/water-quality)  
[waterlog.com/meteorology](http://waterlog.com/meteorology)



## H-3551T Bubbler.....



- Constant Flow Bubbler
- Compatible with other manufactures' pressure sensors and data loggers
- Operates in depths up to 35 m (115 ft) with 50 PSI
- Programmable bubble rates

## H-3553T Bubbler with Integrated Pressure Sensor .....



- Constant Flow Bubbler
- SDI-12, 4-20mA, MODBUS, and RS232 Outputs
- Operates in depths up to 35 m (115 ft) with 50 PSI
- Programmable bubble rates
- Includes built-in high accuracy pressure sensor

## H-3531 Non-submersible "Flashlite" Pressure Sensor .....



- Directly measures dry gas
- SDI-12 output
- Low operating current
- High accuracy
- SDI-12, 4-20mA, MODBUS, and RS232 outputs

## H-3521 Non-submersible "Fluid" Pressure Sensor .....



- Directly measures liquid
- SDI-12 output
- Low operating current
- High accuracy
- SDI-12, 4-20mA, MODBUS, and RS232 outputs

# SENSORS

## H-3123 Submersible Pressure Transducer .....



- Accuracy over temperature range exceeds  $\pm 3$  mm (0.01 ft)
- SDI-12 output transmitted over long cable lengths  $>300$  m (1000 ft)
- Small diameter of sensor ideal for both surface and ground water applications

## Nile Radar Water Level Sensor .....



- Ideal size and weight for difficult site installations
- Low current (13.5mA) with continuous operation, no warm-up time
- High accuracy of  $\pm 2$  mm (Nile 502)
- Long range of 70 m (230 ft) ideal for high bridge installations and "Air-gap" measurements
- SDI-12 and RS232 output

## H-3301/11/42 Shaft Encoder .....



- Ideal sensors for stilling well applications
- Magnetic sensor minimizes static sensitivity
- Accuracy level of  $\pm 0.07$ mm (0.00024 ft) with the H-3342
- Field adjustable knobs for stage offset adjustments
- Absolute Shaft Encoder (H-3342)
- SDI-12 and 4-20mA (H-3342) output

## H-3401 Tipping Bucket Rain Gauge .....



- Built-in microprocessor automatically corrects for rain errors (SDI-12 model)
- SDI-12 or pulse output connects to any data logger
- Multiple output range models (0.1 mm, 0.2 mm and 0.01 in)

## H-380 Relative Humidity / Air Temperature Sensor .....



- Field replaceable HygroClip module provides a quick sensor replacement with no loss of accuracy and no calibration
- Outstanding Relative Humidity and Temperature measurement accuracy and repeatability
- Long-term stability of  $<1\%$  RH/year

A Rotronic Instruments Product

## H-377 Air/Soil/Water Temperature Sensor .....



- Stable and robust sensor used for temperature measurements in many long-term applications, including; air, water and soil
- Analog thermistor probe provides fast response



### H-375 Wind Speed/Direction Sensor .....



- R M Young's Model 05103, the industry standard for wind measurements
- Constructed of UV stabilized plastic with stainless steel and anodized aluminum fittings for long-term trouble-free applications

A R.M Young Product

### H-378 Barometric Pressure Sensor .....



- Absolute pressure sensor
- Design for long-term stability (<0.1 mb/yr)
- Low operating current

A Setra Product

### H-3791 Pyranometer .....



- Designed for photovoltaic / solar energy module monitoring and agricultural evapotranspiration estimation
- Excellent sensors for all weather conditions and all applications

A Kipp & Zonen Product



# COMMUNICATION

**WaterLOG Communication Equipment** is designed for quick and easy installation. Multiple communication options are available to provide remote access for data collection and wireless interfaces between the data logger

**Learn More:** [waterlog.com/communications](http://waterlog.com/communications)



## H-2221 Satellite Transmitter .....



- Links with all WaterLOG data loggers and other manufactures data loggers to provide remote data transmission
- Compatible with GOES(V2)/METEOSAT/INSAT.
- Certified for self-timed and random transmissions
- Contains built-in GPS receiver
- Programmable power output to attain high data reliability

## H-2191 Voice/Data Telephone Modem .....



- Sends measurement data in either voice or data modem from data logger
- Integrated switch closure input for alarm call out message
- Connects to telephone land line

## H-424 Spread Spectrum SDI-12 interface Radio .....



- 900 MHz - generally used in the USA, or 2.4 GHz - generally used outside the USA
- Wireless interface between any SDI-12 Recorder (Data Logger) and SDI-12 Sensor
- Programmable low power mode

## H-4401/02 Spread Spectrum Radios .....



- XL Data Logger to XL Data Logger communication
- XL Data Logger to SDI-12 Sensor communication
- Lower power mode

### H-4411/12 Spread Spectrum Radios .....



- XL Data Logger to XL Data Logger communication
- XL Data Logger to SDI-12 Sensor communication
- High power mode

### H-264 ALERT Serial Interface/Radio .....



- Sends standard ALERT binary format transmission
- Low operating current provides minimum drain from the battery
- User selectable serial input

### H-223 GOES Satellite Antenna .....



- Compatible with any GOES Transmitter
- Rugged, high-gain Yagi antenna designed for fixed location DCP's
- Simple assemble for easy transportation to field site
- High gain (11 dBm)
- Fully adjustable mount (0-90 elevation, 0-360° azimuth)





# SDI-12 INTERFACES

**WaterLOG SDI-12 Interfaces** provide an easy solution to combine the advantages of SDI-12 with other output options. With multiple options to choose from, WaterLOG is the industry leader in providing SDI-12 interfaces.

**Learn More:** [waterlog.com/communications](http://waterlog.com/communications)



## H-4161 SDI-12 to 4-20mA Interface .....



- Allows any SDI-12 sensor to be connected to a PLC, RTU, or other device that reads 4-20mA signals
- Built-in LCD display shows the current SDI-12 data of the attached sensor

## H-423 SDI-12 to RS-485 Interface .....



- Extends the distance between the SDI-12 Sensor and SDI-12 Recorder
- Two units are required, one at each end

## H-4191 RS-232 to SDI-12 Interface .....



- Provide link between an SDI-12 sensor and computer or other device that requires an RS-232 connection

## H-4280 8-Channel Analog to SDI-12 Interface .....



- Converts analog signals to SDI-12 signal for any SDI-12 recorder
- Increase the number of analog sensors connected to a SDI-12 data logger
- Supports 0-5V and  $\pm 5V$  operations

## H-4501 SDI- to Fiberoptic Interface .....



- SDI-12 communications extended to very long distances with fiber Optic link
- Ideal for applications with severe interference caused by heavy electrical equipment or radio communication

# POWER SUPPLIES

**WaterLOG Data Acquisition Systems** have been designed to operate on low power requirements. This enables the use of low cost 12 Vcd power supplies to be used as the primary energy source.

**Learn More:** [waterlog.com/power-supplies](http://waterlog.com/power-supplies)



H-209-1 12 VDC 800 mAmp Battery Charger .....

- AC plug-in to provide continuous trickle charge to rechargeable battery

H-209-4 12 VDC 4 Amp Battery Charger .....

- AC Plug-in to provide continuous trickle charge to rechargeable battery

H-211-7 12 VDC 7 Amp/hr Rechargeable Battery .....

- Sealed rechargeable battery typically recharged with a solar panel or wall charger

H-211-18 12 VDC 18 Amp/hr Rechargeable Battery .....

- Sealed rechargeable battery typically recharged with a solar panel or wall charger

H-211-24 12 VDC 24 Amp/Hr Rechargeable Battery .....

- Sealed rechargeable battery typically recharged with a solar panel or wall charger

H-211-55 12 VDC 55 Amp/Hr Rechargeable Battery .....

- Sealed rechargeable battery typically recharged with a solar panel or wall charger

H-227-10 10 Watt Regulated Solar Panel .....

- On-board voltage regulator provides direct connection to external battery
- Typically sufficient for charging batteries in tropical to temperate latitudes

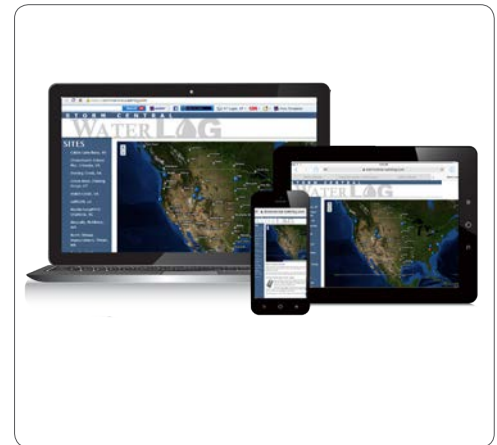
H-227-20 20 Watt Regulated Solar Panel .....

- On-board voltage regulator provides direct connection to external battery
- Typically sufficient for charging batteries in high elevation and latitudes



# DATA HOSTING

Riding on the incredible power of the internet allows us to provide **full service data hosting** without software being installed on the PC. Enjoy the benefits of continual improvements and upgrades without downloading new versions of software and the safety of reliable data storage.

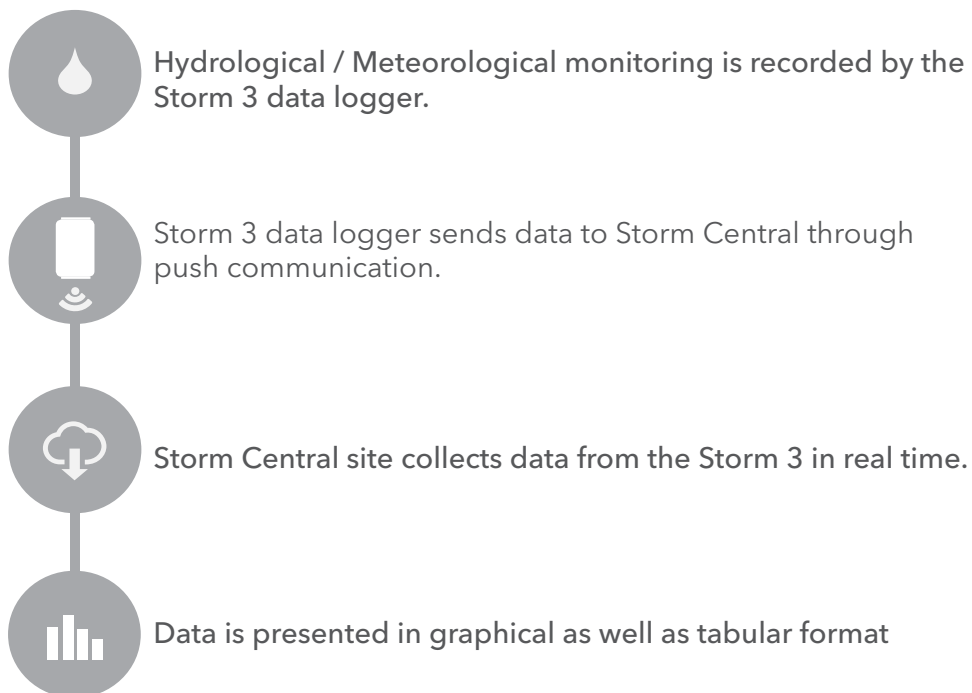


## SC-Cell-1 Storm Central Professional .....

- Use this cloud hosted data solution to collect data through push communication, from the Storm 3 data logger in real-time
- Communicate through devices such as cell modems, GOES and other transmitters
- View data in graphical as well as tabular form
- Compatible with certain competitor loggers (ask sales consultant)

## Modem-SVC Cellular Service .....

- Cellular service billed on an annual rate
- GSM and CDMA





# SALES OFFICE LOCATIONS

## **Xylem Analytics UK**

2 Focal Point  
Lacerta Court  
Works Road  
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# What Can Xylem Do For You?

## Xylem |'zīləm|

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

We're 12,900 people 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.xyleminc.com](http://www.xyleminc.com)**



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#### Request a Quote

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#### Place an Order

Tel: +1.937.767.7241  
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