

WE800 Weather Station



Description

Global Water's Weather Station offers state-of-the-art technology for continuous logging, storing and retrieving of weather information. The GL400 Datalogger, the product's durable and powerful data logging and recording unit, is enclosed in a sturdy weatherproof case. The unit will operate for several months before its 12VDC battery requires recharging.

Weather data can be accessed easily either through a real-time report or through a log of recorded data (programming and calibration are not required). Maximums, minimums and averages can also be obtained from the data using most spreadsheet programs. All data loggers contain a real time clock that date and time stamps each record. All weather data collected by the data recorder can easily be transferred to a disk file for future analysis and storage. The data can be imported into any standard spreadsheet program.

In addition to the GL400 Datalogger the standard Global Water Weather Station includes the following weather sensors and hardware:

- WE550 Wind Speed Sensor
- WE570 Wind Direction Sensor
- WE700 Temperature Sensor
- WE600 Humidity Sensor
- WE770 Solar Shield
- WE820 Y-Frame

Applications

Designed for general meteorological applications, the Global Weather Station is a rugged and low-cost solution to a variety of weather monitoring requirements:

- Agriculture
- Education
- Environmental Studies
- Landfills
- Reclamation
- Wastewater Facilities
- Water Budget Analysis
- Water Conservation

Options

WE800

Weather Station

Please specify if the [GL400 Datalogger](#) should include mast mounting hardware

(To add or remove sensors from the Weather Station, subtract or add the appropriate price from the sensor list below.)

Standard Sensors

[WE550 Wind Speed Sensor](#)

[WE570 Wind Direction Sensor](#)

[WE700 Temperature Sensor](#)

[WE600 Humidity Sensor](#)

[WE770 Solar Shield](#)

Optional Equipment

[WE830 Tripod](#)

[WE100 Barometric Pressure Sensor](#)

[WE300 Solar Radiation Sensor](#)

[RG600 8" Rain Gauge](#)

[RG200 6" Rain Gauge](#)

[AT210 Soil Moisture Sensor](#)

[LW100 Leaf Wetness Sensor](#)

[EP180 Evaporation Pan](#)

[SP101 Solar Panel \(80mA\)](#)

[SP102 Solar Panel \(350mA\)](#)

[WL300 Water Level Sensor](#)

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Water Flow

Water Samplers

Water Quality

Weather

Remote Monitoring

Control



WE550 Wind Speed Sensor



- Fully encapsulated electronics
- 4-20 mA output
- Marine grade cable with strain relief
- 1" mounting elbow

Description

The Global Water Wind Speed Sensor is constructed of high-impact materials, ensuring its durability and ruggedness even in severe weather conditions. The wind speed indicator has a very low threshold, and it responds accurately to subtle changes in wind speed. The sensor is mounted on 25' of marine grade cable, with lengths up to 500' available upon request. The sensor output is 4-20 mA with a two wire configuration. The electronics are completely encapsulated in marine grade epoxy within a rubber sleeve.

Specifications

Type: Three cup anemometer
Threshold: <.5 m/s (1.11 MPH)
Output: 4-20 mA
Range: 0 to 50 m/s (110 MPH)
Accuracy: .2 MPH over the range 11 to 55 MPH
Operating Voltage: 10-36 VDC
Current Draw: Same as sensor output
Warm Up Time: 3 seconds minimum
Operating Temp: -40° to +55°C
Sensor Size: 7" diameter x 8 1/2"
Weight: 1lb.

List

WE550

Wind Speed Sensor

WQEXC Extra Cable

Cable length is measured from end of cable to bottom of sensor.
 After 25', up to 500'.....\$1.10/ft

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WE570 Wind Direction Sensor



- Fully encapsulated electronics
- 4-20 mA output
- Marine grade cable with strain relief
- 1" mounting elbow

Description

The Global Water Wind Direction Sensor is designed to accurately measure wind direction even in the harshest environments. The sensor is mounted on 25' of marine grade cable, with lengths up to 500' available upon request. The sensor output is 4-20 mA with a two wire configuration. The electronics are completely encapsulated in marine grade epoxy within a rubber sleeve.

Specifications

Type: Wind Vane with potentiometer
Output: 4-20 mA
Range: 0-360° (352° electrical, 8° open)
Accuracy: 1% of full scale
Operating Voltage: 10-36 VDC
Current Draw: Same as sensor output
Warm Up Time: 3 seconds minimum
Operating Temp: -40° to +55°C
Sensor Size: 8 1/2" diameter x 10 1/2"
Weight: 1lb.

List

WE570

Wind Direction Sensor

WQEXC Extra Cable

Cable length is measured from end of cable to bottom of sensor.
 After 25', up to 500'.....\$1.10/ft

WE600 Humidity Sensor WE700 Temperature Sensor WE770 Solar Shield



Specifications

Humidity Sensor

Type: Capacitance
Output: 4-20 mA
Range: 0 to 100% RH
Accuracy: $\pm 2\%$ RH
Operating Voltage: 10-36 VDC
Current Draw: 3mA plus sensor output
Warm Up Time: 3 seconds minimum
Operating Temp: -40° to $+55^{\circ}$ C
Sensor Size: 1 1/2" diameter x 7"
Weight: 1/2 lb.

Temperature Sensor

Type: Precision RTD
Output: 4-20 mA
Range: -50° C to $+50^{\circ}$ C
Accuracy: $\pm 0.2^{\circ}$ F or $\pm 0.1^{\circ}$ C
Operating Voltage: 10-36 VDC
Current Draw: Same as sensor output
Warm Up Time: 5 seconds minimum
Operating Temp: -50° to $+100^{\circ}$ C
Sensor Size: 3/4" diameter x 4 1/2"
Weight: 1/2 lb.

Solar Shield

Size: 4" diameter x 8 1/2"
Weight: 1 lb.

Description

The Global Water Humidity Sensor is a precise, durable unit. Humidity sensors are composed of a solid state capacitive element with a linear amplifier. The humidity sensor output is 4-20 mA with a three wire configuration.

The Global Water Temperature Sensor is a high quality, rugged instrument, precision RTD calibrated to US National Standards. The temperature sensor output is 4-20 mA with a two wire configuration.

Each sensor is mounted on 25' of marine grade cable, with lengths up to 500' available upon request. The electronics are completely encapsulated in marine grade epoxy within a stainless steel housing.

The Global Water Solar Shield is a ventilated sun shield, with high reflectiveness, low heat retention, and low thermoconductivity. The unit is designed to protect the Global Water Humidity and Temperature sensors from direct sunlight that may affect the sensor's 4-20 mA output.

List

WE600

Humidity Sensor

WE700

Temperature Sensor

WE770

Solar Shield

WQEXC Extra Cable

Cable length is measured from end of cable to bottom of sensor.
After 25', up to 500'\$1.10/ft

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GL400-7-1 Datalogger



- Rugged, lockable, weather resistant enclosure
- Monitor up to 8 sensors at a time
- Battery powered for remote locations
- Windows and Palm software included
- Accepts any 4-20mA signal

Description

The Global multiple analog input datalogger Model GL400-7-1 is the latest addition to our line of rugged remote recording instrumentation. It features 7 Analog channels and 1 Pulse channel for data recording. The Global Data Logger Software operates on Microsoft's Windows®, which is easy to control and download.

The Global data logger is setup to accept any 4-20 mA sensor. The logger can provide switched power to the sensors. Twisted pair 2-wire and 3-wire sensors can be quickly connected to the datalogger's terminal strip.

The data recorder has a rugged, lockable and weather-resistant enclosure that can easily be hidden, bolted to a post or secured inside an additional container for added protection from the elements, animals or vandals.

Specifications

Memory: Non-volatile flash memory

Battery: 12 Volt, 2.2 A/hr., Rechargeable (Gell Cell)

Resolution: 12-Bit

Channels: 7-Analog, 1-Pulse

Storage Capacity: 8,000 time and date stamped data points per channel

Recording Rate: Linear fixed intervals from 1 per second to every 32,000 seconds (also 0-32,000 minutes, hours and days); Logarithmic test (for pump and slug testing)

Data Overwrite: Select memory wrap or unwrap (unwrap will stop logging data once memory is full)

Clock: Synchronizes to the time and date of user's computer

Enclosure: Expanded UV protected PVC (9" x 7.5" x 4.5")

Weight: 3.5 lbs

List

GL400-7-1

8 channel datalogger

SP101 (option)

Solar Panel (80mA)

SP102 (option)

Solar Panel (350mA)

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WE100 Barometric Pressure Sensor



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

Description

Global Water's highly accurate Barometric Pressure Sensor covers a pressure range from 800 to 1100 mb. The barometric pressure indicator is fully temperature compensated within an operating range of -40° to 65° C. The sensor is mounted on 25' of marine grade cable, with lengths up to 500' available upon request. The sensor output is 4-20 mA with a two wire configuration.

Specifications

Output: 4-20 mA
 Range: 800-1100 mb
 Accuracy: ±1% of full scale
 Linearity/Hysteresis: ± 0.1%
 Operating Voltage: 10-36 VDC
 Current Draw: Same as sensor output
 Warm Up Time: 3 seconds minimum
 Operating Temp: -40° to +55°C
 Sensor Size: 3"x2"x1"
 Weight: 0.13 lb.

List

WE100 (option)
 Barometric Pressure Sensor

WQEXC Extra Cable
 Cable length is measured from end of cable to bottom of sensor.
 After 25', up to 500'.....\$1.10/ft

