



ECO FLEX Siren®

WIRELESS ENVIRONMENTAL MONITORING SYSTEM WITH VISION



Wireless Portable Environmental Monitor with Integrated Multimedia Vision Technology

Connect Multiple Sensors, up to 20 Channels

User Replaceable Internal 12V Battery Supply

Lightweight, Portable Compact Design

Modular Wireless Design allows 4G or WiFi Connectivity

ECOSiren® - GO ECO

The ECOSiren® is a multi-sensor autonomous wireless monitoring platform designed to work in outdoor field environments, delivering data to your desk every time. The built-in multi-media platform allows direct connection of our optional vision camera taking simultaneous pictures that correlate directly with sensor readings. Receive alarm emails with images showing the event details and severity.

Automatically upload data for analysis to BlueLive® Cloud, DropBox®, GoogleDrive® or FTP location of your choice. Future proof worldwide LTE wireless module supports multiple countries and cellular frequencies, WiFi option also supported.

Dimensions:	(Approximately) L: 12in W: 10in D: 5in
Enclosure:	Impact Proof Plastic
Data Storage	Internal Storage - 2.5 yr@15 min Sample Rate USB - over 20 years
Total Images	Internal Memory 500 (640x480) Images, USB over one million, Storage changes with image resolution"
Output:	RS485, Sampler Pulse, LCD
Power:	Logger: 3.3 V, Internal: 12 V, External: Max 16 V
Operating Temp.	-40 to 60°C (-40 to 140°F)
Connectors:	Vision Port / 12 Channel Output Port External Wireless / Antenna Port 12 Channel Sensor Input Port Internal USB and Wireless Port
Battery Packs:	Internal Dual 12 V D-Cell Alkaline Power Supply
Sample Rate:	User Defined, 1 to 60 minutes
Software:	Field-Siren Windows GUI, Cloud Programmable
Protocol:	Compressed Binary
Wireless:	World Wide Cellular: 4G LTE and WiFi
Data Transfer:	Blue-Live® - DropBox® - GoogleDrive® - FTP



Monitor with Vision®

Each ECOSiren® monitor has a standardized camera port allowing you to monitor with vision® at any time. Great for overflow verification, industrial trade waste color, and Infiltration detection. Camera resolution can range from 5MP all the way down to 0.1MP, complete with user programmable compression.



Standardized Camera Port on Every ECOSiren® Monitor

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5MP LOW LIGHT VISION CAMERA SENSOR

5MP Low Light CCD Camera, with Bright LED

Rugged Enclosure

Maximum 5MP resolution

Built-in Compression

Easy to use mounting bracket



Monitor With Vision[®]

The **Blue Siren 5MP High-Output LED Camera Sensor** is a powerful, high-resolution imaging solution designed for a wide range of applications, including **sewer inspection, grease clog detection, inflow and infiltration (I&I) monitoring, storm grate surveillance, and camera-based infrastructure security.**

With **automated image capture and seamless data transmission**, the sensor can store and send images directly to any server or web-based platform. Sensor readings are **automatically time-synced with image data**, enabling precise correlation between visual and environmental conditions for deeper analysis and enhanced decision-making.

Technical Specifications:

Pixel Resolution : 2592x1944 (5MP), 2048x1536 (3MP), 1920x1080 (2MP), 1600x1200, 1280x960 (1MP), 1024x768 (.7MP), 800x600 (.5MP), 640x480

Sensor: 1/2.8" CMOS

Baud Rate: 115200bps (default), 19200bps, 38400bps, 57600bps, optional

Angle of View (FOV): 60 degree (default), 120/90/45/30/15/8 degree Optional

Focal Length: 3.6mm (default), 2.8mm/6mm/8mm/ 12mm/ 16mm/25mm Optional

Minimum Illumination: 0.01LUX

Operating Temperature: -4°F-140°F

Sample Rate: Minimum 1 minute

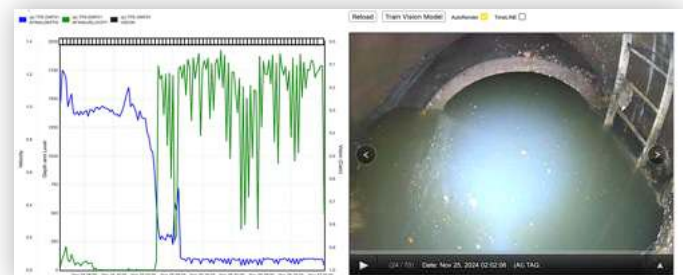
Auto Gain Control: Automatic

Exposure: Automatic

Timelapse Movie Viewer with (Ai)



View data and images side by side using our unique time lapse viewer. Easily correlate dry vs wet weather flows or train image model to detect anomalies



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DUAL WAVE FLOW (AV) ULTRASONIC DOPPLER AREA VELOCITY SENSOR



Fully Submersible

Dual-Wave Doppler Technology

Averaging Algorithms Applied

Doppler frequency is proportional to the speed of water in mm/s, m/s and ft/s

Dual-Wave Area-Velocity Sensor

The **Blue Siren Dual-Wave Acoustic Velocity (AV) Sensor** leverages **Doppler-based acoustic technology** to deliver precise velocity measurements in flow monitoring applications. This advanced AV sensor integrates **high-sensitivity pressure-depth and velocity sensors**, ensuring accurate and reliable data acquisition.

All electronics, including an **internal water temperature sensor**, are fully encapsulated within the sensor housing for enhanced durability and environmental protection. The sensor outputs **velocity via a serial digital data stream**, while **depth is transmitted through an analog 0-5V signal**, ensuring compatibility with various data acquisition systems.

Its **Dual-Wave Technology** employs **dual transmitters**, saturating the flow stream with a higher density of acoustic signals, thereby expanding the measurement range and enhancing the acoustic profile for superior velocity measurement.

Technical Specifications:

Depth: 30ft (10m) 15 PSI or 10ft (3m) 5 PSI

Accuracy: +/- 2% Laminar Flow

Input Voltage: 6-16V DC

Warmup Time: 2 seconds minimum

Resolution: 1 mm/s

Range: 0 to +10m/s optional Reverse

Cable: 7.62m (25ft) Standard

Response Time: 4 digital samples/second

Serial Output: UART - TTL, RS485, Hz

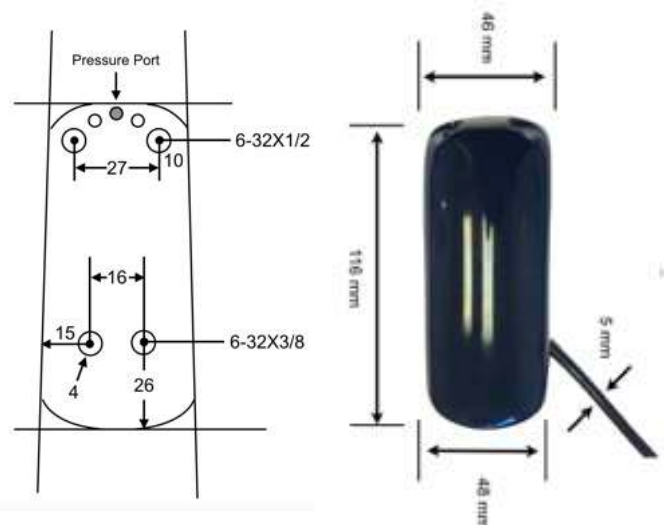
Transmission: 500 KHz

Depth Output: 0 - 5V

Depth Accuracy: 5PSI (+-) 1mm or 15PSI (+-) 2mm

Burst Height: > 100ft (15PSI)

Redundancy: Multiple Sensors can be used simultaneously using Dual Wave technology without cross talk



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PHN DEPTH PRESSURE DEPTH SENSOR Product Specification Sheet



Stainless Steel Transducer Element

Vortex Shedding Hydrostatic Shield

Use in Static and Flowing Conditions

Waterproof, Impact Resistant Urethane Construction

Streamline Design Minimizes Fouling

Technical Specifications:

Dimensions: 5" X 1.25" X 1"

Construction: 316L Stainless Steel Material

Diaphragm: Tantalum or optional Titanium

ENV Rating: Fully Submersible

Power: Sensor Input: 5V DC

Transducer: 19mm Diameter

Gauge: Absolute

Pressure Ranges: 5 PSI or 15 PSI

Resolution 5 PSI = 1mm
15 PSI = 2mm

Range: 5PSI = 10ft (3m)
15PSI = 30ft (9.14m)

Cable Vented 5 conductor, 6mm Diameter

Overpressure 1.5 times Full Scale

Linearity: ± 0.15 FS

Temperature: -40 to 125 C

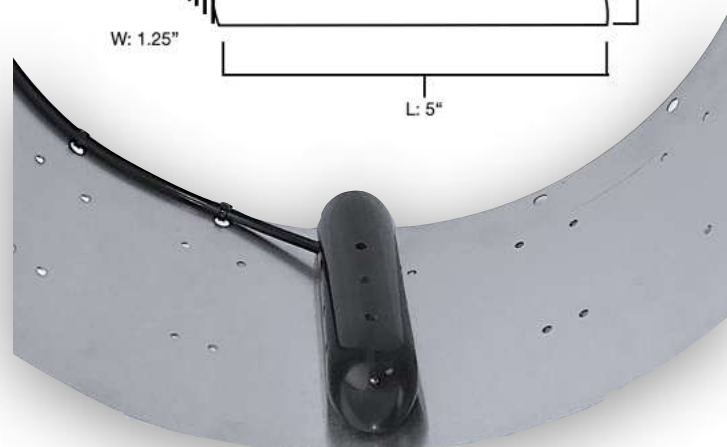
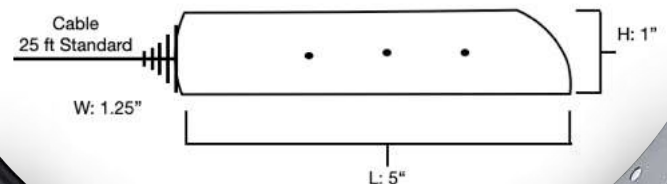
PHN15 / PHN05 Pressure Depth Sensor

Easily monitor water depth in flowing and static conditions. PHN technology mitigates the pressure vortex caused by velocity and accurately measures the depth of water in any condition. This sensor is designed to work in a multitude of installations such as pipes, weirs, stilling wells, streams, ponds, and lakes.

In addition to the hermetically sealed stainless steel transducer, the PHN is further encapsulated using inert materials, making this a great solution for industrial and wastewater applications.

Combined with the SOLOSiren®, this low-power, fast response depth sensor makes this an ideal compact, mid to long term monitoring deployment option.

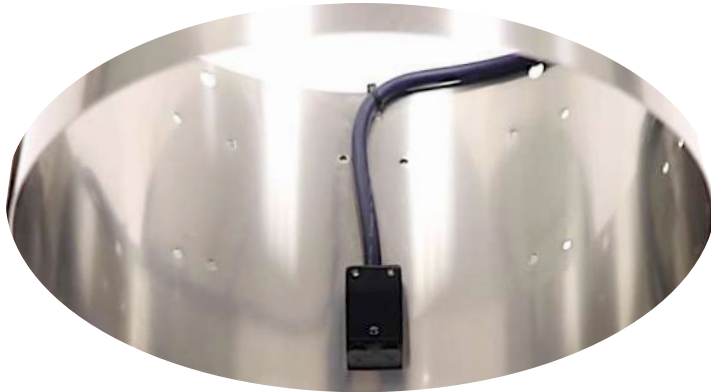
Available in both 5 and 15 PSI variants, accurately monitor a wide range of depths from a low 0.04 in (1mm) to maximum 30 ft (9.14m).



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MICRO-VELOCITY

Single Wave Micro-Sized Ultrasonic Doppler Velocity



Low Profile Micro-Velocity Sensor used for measuring velocity in fast / low depth

Micro - Velocity Sensor

Accuracy:	+/- 2% Laminar Flow
Input Voltage:	6-16V DC
Warmup Time:	2 seconds minimum
Resolution:	1 mm/s or 1 Hz/sec
Range:	0 to +10m/s (-6m/s optional)
Cable:	7.62m (25ft) Standard up to 300 ft
Response Time:	4 digital samples/second (Dependent on Average Algorithm)
Serial Output:	UART - TTL, RS485, Hz
Baud Rate:	Serial Communications 4800, Low Baud rate for Longer Cable Communications
Redundancy:	Digital cross correlated oscillation allows for multiple sensors to be used simultaneously
Dimensions:	0.6in X 1.7in X 1in

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Measure Velocity in 0.5 inches of Flow Depth

Single-Wave Doppler Technology

Averaging Algorithms Applied

Doppler Frequency is Proportional to the Speed of Water

MICRO-Velocity Sensor

The Blue Siren Single-Wave Micro Velocity sensor uses the Doppler effect to measure the speed of fluid using acoustic technology.

This sensor is ideal for measuring micro flow rates in pipes flowing 0.4 inches or higher.

All electronics are encapsulated and submersible.

Accurate Dual Wave Ultrasonic Level is used to measure flow depth inside the pipe.

Great alternative for capturing low flow rates when most other solutions require at least 1.5 inches for flow depth or higher.



Measure Flow Velocity in Less Than 1 Inch of Flow



Industrial Long Range Ultrasonic Level Sensor Product Specification Sheet

Measure Overflow Depths Manholes and CSO Chambers

Pre-Calibrated for Water Level Detection

Long Range Measurement from 8 inches to 20 ft

Submersible Design

Smart Signal vs Level Detection and Correction when used with Blue Siren Loggers.

Accurately measure from 8 inches (200mm) up to 20ft (6m). Great for ponds, lakes, and manhole monitoring.

Digital output with signal strength information allows the monitor to determine if a reading is good or not. Smart digital processing allows for the elimination of unwanted data commonly associated with non-contact sensors.

All sensors provide precision measurement for wastewater and water flow with non-uniform surfaces by incorporating state-of-the-art transducer technology and processing algorithms.

Technical Specifications:

Body Material: Rugged PVC

Accuracy: +/- 0.1% Measurement Accuracy

Beam Angle: 8° Conical

Operating Voltage: 12V DC

Temp. Compensation: Yes

Resolution: 11 Bit

Range: Dead-Band: 8in (200mm)
Maximum Range: 20ft (6m)

Response Time: 60 mS

Sampling Rate: 10 Samples Per Second

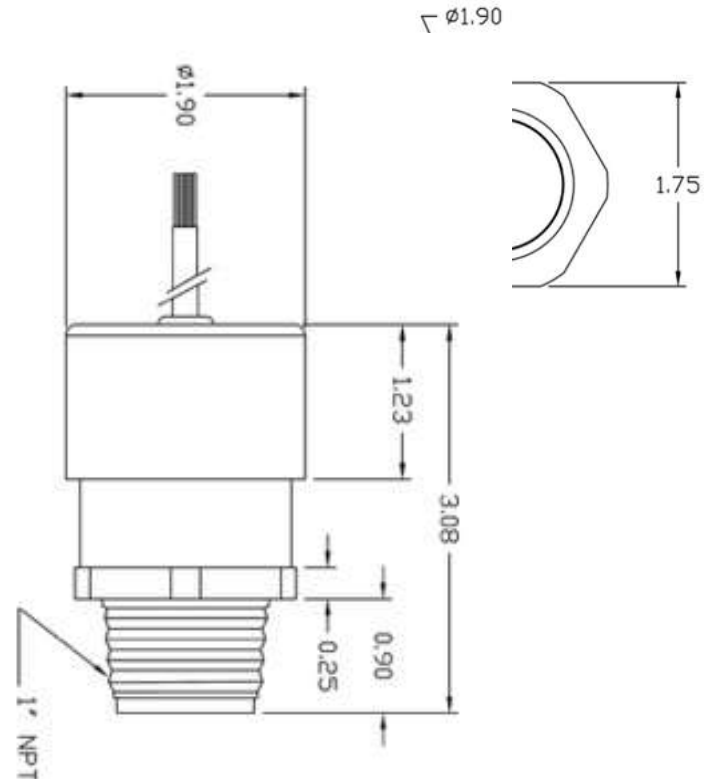
Temperature Range: -40°C to 70°C

Relative Humidity: 0 to 95%, non-condensing

Enclosure Rating: IP68

Range Accuracy: 0.01in (0.25 mm) Measuring Resolution

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Technical Specifications:

Body Material: Rugged PVC Construction

Accuracy: +/- 0.1% of Target Range

Beam Angle: 50° Conical

Operating Voltage: 12V DC

Temp. Compensation: Yes

Range: 1 inch (25mm) to 5 feet (1.5m)

Target Detection: Dead-Band: 1 in (25mm)
Maximum Range: 5 ft (1.5m)

Response Time: 60 mS

Sampling Rate: 0.1Hz to 20Hz in 0.1Hz increments
Factory Default: 10Hz

Temperature Range °C: -40°C to 70°C

Relative Humidity: 0 to 95%, non-condensing

Enclosure Rating: IP68

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Industrial Short Range Ultrasonic Level Sensor Product Specification Sheet

Measure Low Flow Depths in Pipes

Pre-Calibrated for Water Level Detection

Near Zero Dead Band (1" to 5") Range

Submersible Design

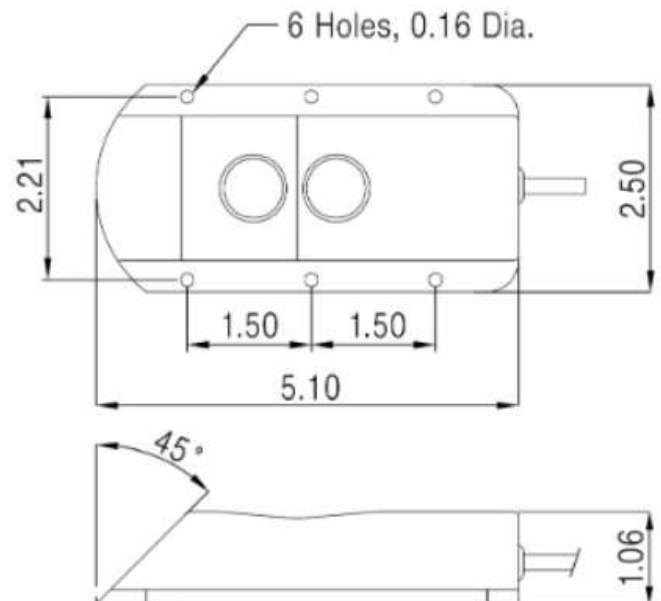
Smart Signal vs Level Detection and Correction when used with Blue Siren Loggers.

Measure Low Flow and other Level In Pipes and Constricted Spaces

High-Resolution, Submersible, In-Pipe Ultrasonic Level complete with 25ft cable. Great for measuring low flow depth that require a true resolution and accuracy of 1mm.

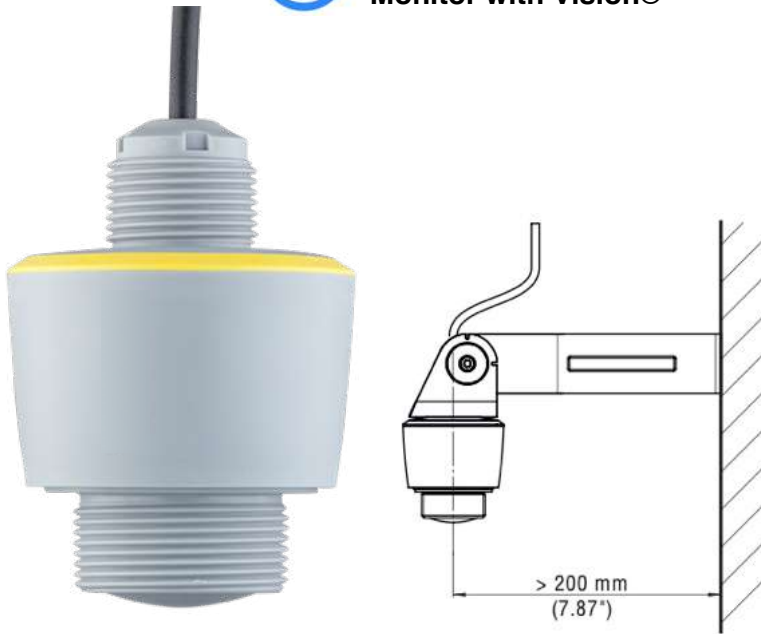
Low profile ultrasonic transmitter modules are optimized to provide continuous non-contact distance measurement of fluids in constrained working zones for application ranges from 1 inch (25 mm) to 5 feet (1.5 m).

All sensors provide precision measurement for wastewater and water flow with non-uniform surfaces by incorporating state-of-the-art dual-transducer ultrasonic technology and processing algorithms.



LR50 RADAR LEVEL

Product Specification Sheet



80 GHz technology

50ft Long range Accuracy with Resolution 1 mm

Zero (0) Dead Band

Rugged PVDF Material

Fast Response Time Saves Battery Life

LR50 RADAR LEVEL

Designed for use in water and wastewater applications, the LR50 radar sensor is our number one choice for non-contact level measurement. 80GHz radar technology is more reliable than conventional ultrasonic and leads to a more maintenance free operation.

Easily installed on a bracket, the LR50 can be mounted in manholes, pump stations, wet wells, bridges and other open channel level applications.

Long Range sensing technology will measure up to 50ft with a 0.07" accuracy.

Dimensions: Diam. 3" X 4.28"

Range: 0 to 15m ~ 50ft

Accuracy: 2 mm ~ 0.07 in

ENV Rating: IP66/IP68 (3 bar) acc. to IEC 60529, Type 6P acc. to UL 50

Beam Angle: 8°

Transducer: Radar

Material: PVDF

Response Time: ~ 3 seconds

W-band: 80 GHz technology

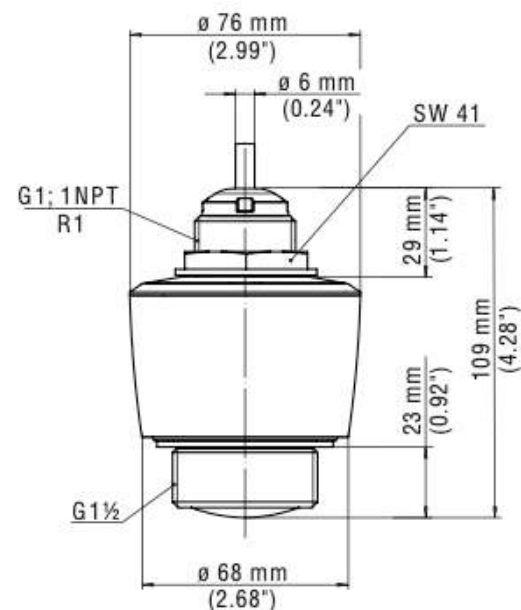
Resolution: 1mm (0.039in)

Blocking Distance: 0 mm (0 in)

SetUp: Bluetooth

Temperature: -40 to 80 C

Certifications: ATEX/IEC/c-FM-us/c-CSA-us; gas, intrinsic safety, Zone 0, 0/1, 1, 2 (Class I Division 1, 2) + Dust, intrinsic safety, Zone 20, 20/21, 21, 22 (Class II, III Division 1, 2)



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OEM RADAR VELOCITY PULSAR NON-CONTACTING VELOCITY SENSOR

ATEX Zone 1 or Zone 0

Industry Standard Reliability

Averaging Algorithms Applied

Low Power, Ideal for Remote Monitoring

OEM RADAR VELOCITY

Blue Siren designed an intrinsically safe circuit that can be used with industry standard sensors including the reliable Pulsar MicroFlow-i non-contact radar velocity sensor.

Measuring velocity using a non-contact method is a complex analytical challenge that has only become feasible with the advent of faster processors available to instrumentation designers. Pulsar Measurement employs a technique known as Refracted Spread Spectrum Analysis (RSSA). In the MicroFlow-i product, a pulse is emitted at the liquid surface, generating reflections across the entire channel width. A single transducer can handle channels up to 1.5 meters (4.9 feet) wide, while multiple transducers work in unison for broader applications. The RSSA algorithms process and integrate the received signals, then segment them for real-time analysis and velocity calculation.

Technical Specifications:

Sensor Body Dimensions:	90 mm x 140 mm (3.54 in x 5.51 in)
Weight:	1 kg (2.2 lbs)
Sensor Body Material	Valox 357
Maximum Separation:	Up to 1,000 m (3,280 ft)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Velocity Range:	0.3 m/s to 6 m/s (0.98 ft/s to 19.7 ft/s)
Optimum Installation:	Install and an angle of 45° in line with the flow. More information is available in the manual.
Current Consumption	3.8-22mA
Enclosure Protection:	IP68
Radar:	K-Band (ISM)
ATEX Approval:	Ex II 1 G D, Ex ia IIC T4 Ga, Ex ia IIIC T135°C Da (Directive 2014/34/EU)



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DIGITAL ALARM SWITCH

Real Time High Level Alarm and Vision Trigger

Leak Proof

Shock Proof

Impact Resistant

Resistant To Sewage And Wastewater Applications

Operating Temperature Range Of 32°F to 170°F

High Level Alarm

Easily monitor and send alarms when water levels reach a critical point. The internal switch activates as the float rises 1" or 5" above horizontal.

Leak-proof operation makes this sensor optimal for monitoring water and wastewater applications.

Mini and Standard sizes are available.



Technical Specifications:

Body Material Exterior: Durable PolyPropylene

Body Material Interior: Solid Polyurethane Foam

Actuation Point: 1" Above/Below Horizontal

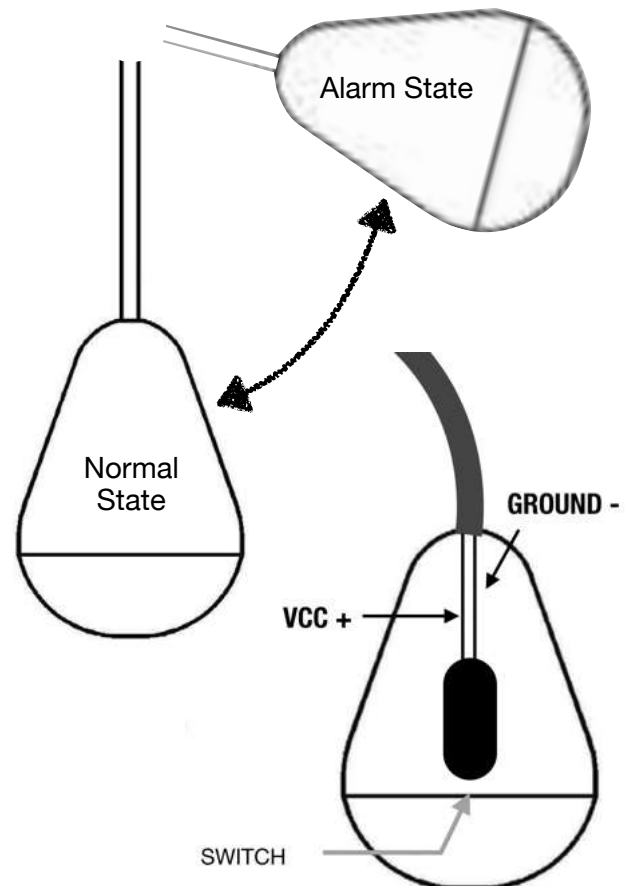
Operating Voltage: 10 AMP - 120V AC
3 AMP - 240V AC

Cable Material: Chlorinated Poly Ethylene

Temperature Range: 32°F to 170°F

Cord Weight: 1.22lbs

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Multi-Parameter Optical COD-TOC-BOD-TURBIDITY- TEMPERATURE SENSOR



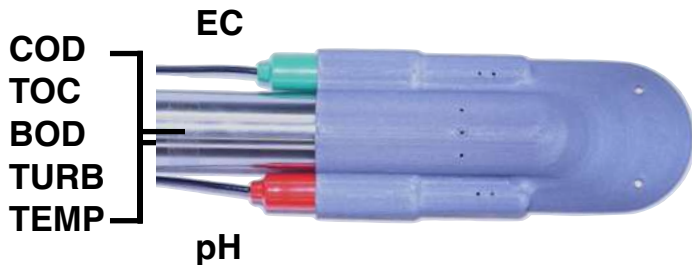
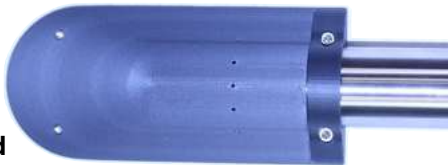
Blue Siren COD/BOD/TOC/Turbidity/Temperature Sensor Next-Generation Dual-Light Technology for Precision Water Monitoring

The Blue Siren COD Sensor delivers reliable, real-time water quality insights using advanced dual-light technology for unmatched measurement accuracy.

- **UV Light Source:** Detects organic compound absorption to calculate Chemical Oxygen Demand (COD) with high precision.
- **Reference Light Source:** Continuously monitors turbidity, compensating for clarity variations that affect accuracy.
- **Optical Path Compensation:** Intelligent algorithms automatically adjust for signal loss and particle interference, ensuring stable and dependable results.

Built for industrial, municipal, and environmental applications, this sensor provides consistent, high-precision monitoring of COD, BOD, TOC, turbidity, and temperature—empowering operators to make confident, data-driven decisions.

Install Sensor in
Foul and Storm
Sewers using
Protective
Hydrostatic Shield



Direct Flow Installation using Multi parameter
Hydrostatic Shield

Measuring Principle Dual wavelength ultraviolet absorption method

Measurement Parameters COD, Turbidity, BOD, TOC

Measuring Range COD: 0~200 mg/L, 0~500 mg/L (equiv. KHP), 0~1500 mg/L (equiv. KHP)

Turbidity: 0~1000 NTU, 0~2000 NTU

BOD: 0~100 mg/L, 0~650 mg/L

TOC: 0~150 mg/L, 0~450 mg/L

COD Accuracy ±5%

COD Resolution 0.1 mg/L

Turbidity Accuracy ±5%

Turbidity Resolution 0.1 NTU

BOD Accuracy ±5%

BOD Resolution 0.1 mg/L

TOC Accuracy ±5%

TOC Resolution 0.1 mg/L

Calibration 2-point calibration

Signal Output RS-485 (Modbus/RTU)

Power Supply 12~24V DC

Power Consumption 0.3W @ 12V

Storage Temperature -5~65°C

Working Conditions 0~50°C, <0.2 MPa

Protection Rating IP68

Installation Submersible

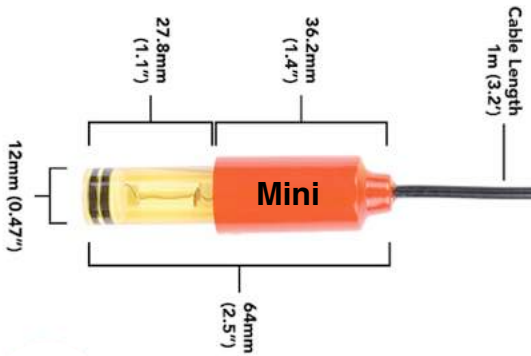
Cable Length 5m cable

Shell Material Stainless Steel 316L

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Hydrogen Potential pH Sensor



Mini pH, small lab grade, submersible sensor for small hard to reach areas.



EC / DO Dual Sensor, Option, Combine pH with EC or DO for a flow ready, Dual Water Quality Solution

Technical Specifications:

Measuring range 0~14.00pH; 0~135°C

Resolution 0.01PH; 0.1 °C

Accuracy 0.01PH+1Digit; 0.1°C +1Digit

Electrode 0.05cm-1 sanitary grade electrode, 1/2" thread

Current output Isolated protection 4-20mA signal output

Cable length 10m or others(5~30m)

Working conditions temperature : 0~50°C; Humidity : ≤85%RH

Single Sensor Deployment

Sonde Multiparameter Deployment

Direct Flow Stream with Hydrostatic Shielded

Combo Flow with DO, EC, pH

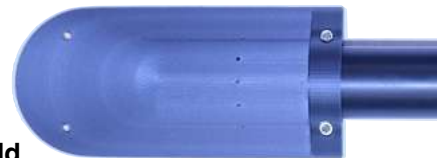
The **Blue Siren Industrial Digital Water pH Sensor** delivers accurate pH measurement in demanding environments, from acid and alkali solutions to industrial chemical processes. With RS485 Modbus/RTU output, it integrates easily with monitoring and control systems for continuous online measurement. A dual high-impedance amplifier ensures fast response and strong resistance to interference, providing stable, reliable data.

Its **patented long-life probe** uses a pressurized reference system for over 20 months of consistent performance—far exceeding standard electrodes. Designed for durability, it features a 3/4-inch NPT mounting thread, separable probe and display, and full IP68 waterproof protection, making it a rugged, low-maintenance choice for industrial applications.



Install Single Sensor in Sonde Cradle for Multi Parameter Applications

Install Sensor in Foul and Storm Sewers using Protective Hydrostatic Shield



EC
pH
DO



Direct Flow Installation using Multi parameter Hydrostatic Shield

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Electrical Conductivity EC Sensor

Single Sensor Deployment

Sonde Multiparameter Deployment

Direct Flow Stream with Hydrostatic Shielded

Combo Flow with DO, EC, pH

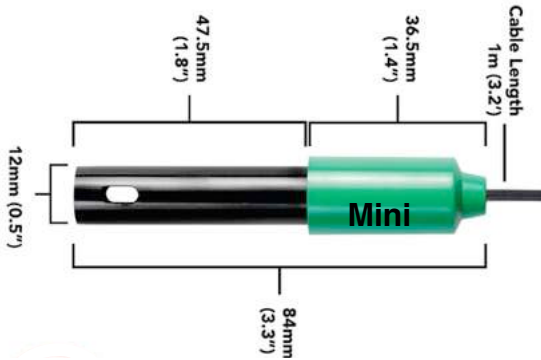
The **Blue Siren Industrial Electrical Conductivity Sensor** is built for precise, dependable measurement in harsh industrial environments, including acid, alkali, and salt solutions, as well as complex chemical processes. Engineered for continuous online monitoring, it delivers stable, accurate results with rapid response times and strong resistance to electrical interference.

Its rugged design, crafted from high-quality materials, ensures durability even under the toughest conditions. With standard threaded connections, installation is simple and secure for both pipelines and tanks. Built for long-term performance, the sensor provides reliable conductivity monitoring that industries can trust.



Industrial Grade
Sensor

Mini EC, small lab grade, submersible sensor for small hard to reach areas.



Technical Specifications:

Measurement Range and Resolution	0-50,000 uS/cm
Accuracy	±1.0%F.S.
Operating temperature	0~65°C
Working pressure	<0.6MPa
Power Supply	12VDC~24VDC ±10%
Output Mode	Rs485(Modbus/RTU)
Wetted material	PP(default)/PPS/PVC/PP(customizable)
Installation	3/4 "NPT thread, immersion mounting
Cable Length	5m, other length can be customized
Temperature compensation	Automatic temperature compensation
Calibration method	Two-point calibration
Power	<0.5W
Degree of protection	IP68



Install Single Sensor in Sonde Cradle for Multi Parameter Applications

Install Sensor in Foul and Storm Sewers using Protective Hydrostatic Shield



DO
EC
pH



Direct Flow Installation using Multi parameter Hydrostatic Shield

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Dissolved Oxygen DO Sensor

Single Sensor Deployment

Sonde Multiparameter Deployment

Direct Flow Stream with Hydrostatic Shielded

Combo Flow with DO, EC, pH

Technical Specifications:

Measurement Range	DO: 0–20 mg/L (0–20 ppm, 0–200%) Temperature: 0–45°C
Accuracy	DO: ±3% of measured value Temperature: ±0.5°C
Pressure Range	≤0.3 MPa
Calibration	Air automated calibration, sample calibration
Main Material	Body: SUS316L + PVC (freshwater), Titanium alloy (marine) O-ring: fluorine rubber; Cable: PVC
Power Supply	AC: 100–240VAC (50/60Hz) DC: 9–36VDC (12–24VDC recommended)
Output	2 × 4–20mA outputs 3 × relay outputs (programmable)
Communication Protocol	RS485 Modbus RTU (customizable)
Storage Temperature	-15 to 65°C
Measuring Temperature	0 to 45°C
Dimensions	Sensor: Ø55 mm × L 342 mm Transmitter: 142 × 142 × 162 mm (L×W×H)
Weight	Sensor: 1.85 kg Transmitter: 1.35 kg
Protective Rate	Sensor: IP68 / NEMA 6P Transmitter: IP65 / NEMA 4X
Cable Length	Standard: 5 m (extendable to 100 m)
Notes	Embedded temperature sensor included

The Blue Siren Optical Dissolved Oxygen Sensor delivers precise and stable readings using advanced fluorescence technology. A blue LED excites a specialized sensing surface, and the resulting signal reveals oxygen levels with high accuracy.

To ensure consistent performance in real-world conditions, the sensor includes built-in temperature and pressure compensation. This allows it to provide reliable dissolved oxygen measurements across a wide range of environments.



Install Single Sensor in Sonde Cradle for Multi Parameter Applications

Install Sensor in Foul and Storm Sewers using Protective Hydrostatic Shield



**EC
DO
pH**



Direct Flow Installation using Multi parameter Hydrostatic Shield

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Turbidity Sensor



Built in Wiper Cleans Optical Lens Before Every Reading



Hydrostatic Shield Protects Sensor and Allows for Installation in Flowing Conditions

Technical Specifications:

Measurement Range	Optical method
Working Principle	0-20.00NTU, 0-200.0NTU, 0-4000.0NTU
Measuring Range	±3% FS
Accuracy	0~50°C, 0~2Bar
Working Temperature	316 stainless steel
Material	12~24VDC
Power Supply	3/4" NPT Thread
Connection	RS485 Modbus RTU & 4-20mA
Signal Output	2-point calibration
Calibration	IP68
Protection	5m cable
Cable Length	

Single Sensor Deployment

Sonde Multiparameter Deployment

Direct Flow Stream with Hydrostatic Shielded

Combo Flow with DO, EC, pH

The **Blue Siren Industrial Water Turbidity Sensor** is engineered for accuracy and reliability in demanding water quality monitoring applications. Using advanced optical technology, it measures turbidity across a wide **0-3000 NTU range**, with an **embedded temperature sensor** that provides real-time compensation for stable, dependable readings. Its robust design ensures consistent performance in both industrial and environmental settings.

Fully integrated into the **Blue Siren product network**, this sensor operates on a **12-24V DC power supply** and comes equipped with a **5-meter cable** for flexible installation. Whether in water treatment plants, process industries, or environmental monitoring projects, it delivers the precision, durability, and seamless compatibility required for long-term operation.



Install Single Sensor in Sonde Cradle for Multi Parameter Applications

Install Sensor in Foul and Storm Sewers using Protective Hydrostatic Shield



**EC
TURB.
pH**



Direct Flow Installation using Multi parameter Hydrostatic Shield

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Ammonia Nitrogen NH₃ / NH₄ Sensor



Combined NH₃ Sensor with Sampler Intake for Trade Waste, Industrial Monitoring project



Single Sensor Deployment

Sonde Multiparameter Deployment

Direct Flow Stream with Hydrostatic Shielded

Combo Flow with DO, EC, pH

The **Blue Siren Ammonia & Ammonium Sensor** delivers accurate, real-time monitoring of ammonia (NH₃) and ammonium (NH₄⁺), essential for managing water quality in industrial and environmental applications. While ammonium supports biological processes, high levels can trigger algae growth and, through nitrification, lead to nitrate (NO₃⁻) formation that reduces dissolved oxygen in aquatic systems.

In water, ammonia appears as toxic non-ionic NH₃ and the less harmful NH₄⁺ ion. Their balance depends on pH and temperature, with NH₃ becoming more dominant at higher pH and colder conditions. By precisely measuring these dynamics, the Blue Siren Sensor helps protect aquatic life and maintain healthy water systems.

Technical Specifications:

Measuring range 0~10.00mg/L(0~100.00mg/L)

Resolution ±0.5°C

Accuracy ±10% or ±1mg/L

Current output Isolated protection RS485 signal output

Cable length 5 meters, other lengths can be customized

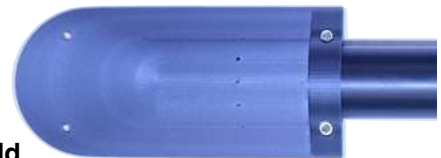
Temperature 0~40°C

Working conditions temperature : 0~50°C; Humidity : ≤85%RH



Install Single Sensor in Sonde Cradle for Multi Parameter Applications

Install Sensor in Foul and Storm Sewers using Protective Hydrostatic Shield



EC
NH₃
DO



Direct Flow Installation using Multi parameter Hydrostatic Shield

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SAMPLER

WATER QUALITY SAMPLER



Wireless Portable Water Quality and Flowmeter with Integrated Multimedia Vision Technology and Sampler

DualWave Ultrasonic Doppler Flow Sensor Included

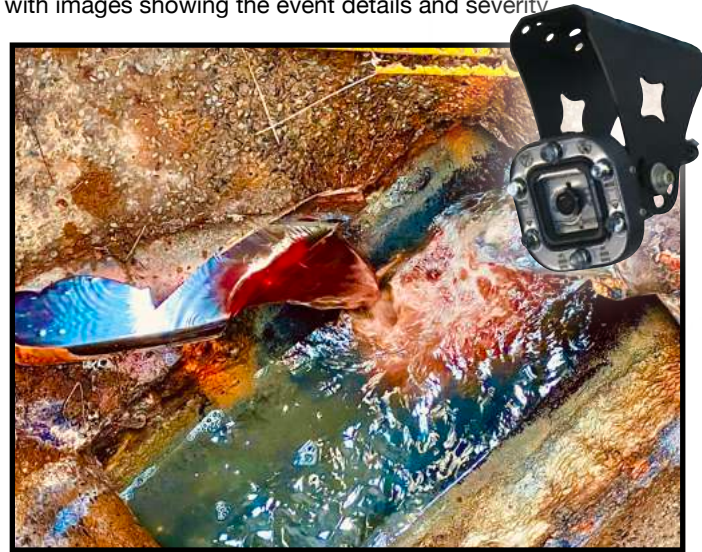
Multi-parameter Water Sensors

User Replaceable Internal 12V Battery Supply

Solar Panel or AC Power Options

ECOSiren[AQUA]™

The ECOSiren® AQUA is a multi-sensor autonomous wireless monitoring platform designed to work in harsh sewer environments, delivering data to your desk every time. The built-in multi-media platform allows direct connection of our optional vision camera taking simultaneous pictures that correlate directly with sensor readings. Receive alarm emails with images showing the event details and severity.



Control Modes: Parasteltic Pump

Enclosure: IP68 Impact Proof Plastic

Data Storage Internal Storage - 2.5 yr@15 min Sample Rate

Total Images Internal Memory 500 (640x480) Images

Power: Dual 12V Ex Battery Packs
8 Duracell PROCELL (D) Batteries per Pack
User replaceable

StorageTemp. -40 to 60°C (-40 to 140°F)

Multi-Sensor Support: Water Quality
Flow
Level
Sampler
Vision

Get Your Sample Every Time

Built in Sampler Automatically Takes Grab Samples



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LAB GRADE Rain Gauge Sensor Product Specification Sheet



Meets National Weather Service Specifications

Transmits Data Up To 300ft

Single or Dual Reed Switch

Self Emptying

Insect/Debris Screen Provided

Self Emptying Rain-Gauge

Large 8" Diameter collector bucket meets NWS specifications for statistical accuracy. Every gauge is factory calibrated and tested for 1/100" increment measurements.

This specific gauge set today's rainfall monitoring standard with the original tipping bucket patent obtained in 1974.

Body Material: Aluminum

Transducer: Tipping Bucket

Transducer Material: Specially Formulated Plastic For Low Surface Tension

Switch: Single or Dual - Dry Reed Switch

Output: Less Than 0.1 Second Switch Closure

Capacity: 6 - 24V DC

Certifications: Meets National Weather Service Statistical Accuracy

Capacity: Self Emptying

Resolution: 0.01 in
0.25 mm
0.2 mm
0.1 mm

Accuracy: 1% at 0.5 in/hr

Cable: 30ft Standard



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Economical Rain Gauge Sensor Product Specification Sheet



Meets National Weather Service Specifications

Transmits Data Up To 300ft

Capable Of Connecting Up To 3 Rain Gauge Sensors

Self Emptying

Insect/Debris Screen Provided

Technical Specifications:

Body Material: High Impact Polypropylene, UV Inhibited

Transducer: Tipping Bucket

Transducer Material: Specially Formulated Plastic For Low Surface Tension

Switch: Dry Reed Switch

Output: Less Than 0.1 Second Switch Closure

Capacity: 6 - 24V DC

Certifications: Meets National Weather Service Statistical Accuracy

Capacity: Self Emptying

Resolution: 0.01 in
0.25 mm
0.2 mm
0.1 mm

Accuracy: 1% at 0.5 in/hr

Cable: 50ft Standard

Self Emptying Rain-Gauge

Large 8" Diameter collector bucket meets NWS specifications for statistical accuracy. Every gauge is factory calibrated and tested for 1/100" increment measurements.

This specific gauge set today's rainfall monitoring standard with the original tipping bucket patent obtained in 1974.

Lab Grade Rain-gauges also available



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Wind Speed Sensor Product Specification Sheet



Accurate 1mph Speed Resolution

Can Measure Windspeed from 0mph to 175mph

Able To Withstand Extreme Weather

High Resolution Compass

1° Direction Resolution

Wind Speed

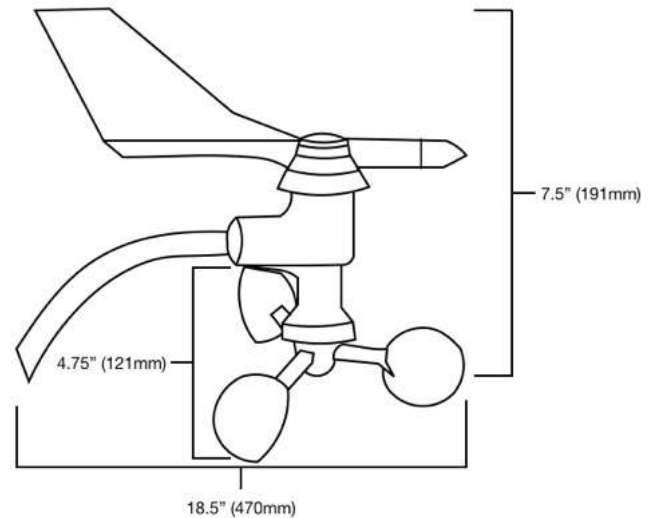
Accurately measure the speed and direction of wind using this wind sensor. Designed to withstand hurricane-force winds of maximum 175mph and also sensitive enough to detect a light breeze of 1mph.

The wind gauge can handle extreme cold and heat making it ideal for weather applications.

Pole Mount hardware included with sensor

Technical Specifications:

Weight:	2 lbs. 15 oz. (1.332 kg)
Dimensions:	18.5" long x 7.5" high x 4.75" wide (470mm x 191mm x 121mm)
Body Material:	Wind Vane and Control Head: UV-Resistant ABS Wind Cups: Polycarbonate Anemometer Arm: Black-Anodized Aluminum
Connector:	Modular Connector
Accuracy:	Wind Speed: +/- 5% Wind Direction: +/- 7%
Resolution:	Wind Speed: 1mph (1 knot, 0.1 m/s, 1 km/hr) Wind Direction: 1° (0° to 355°), 22.5° between compass points
Range:	Wind Speed: 0-175 mph (150 knots, 78 m/s, 280 km/hr) Wind Direction: 0°-355° or 16 Compass Points
Cable:	12.2 meters (40 Ft)
Operating Temp:	-40°C to 65°C (-40°F to 149°F)



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H₂S GAS

HYDROGEN SULFIDE SENSOR

Product Specification Sheet



3-electrode electrochemical technology

High Humidity Operating Range

Wide Measurement Range from 0 to 200 ppm

Optional Protective Submergence Shield

Electronics fully Encapsulated

Hydrogen sulfide Sensor

Easily monitor hydrogen sulfide using any of the Blue Siren product lines. Data is automatically collected, stored and sent wirelessly to the cloud for analysis and alarming. Designed to work in relatively high humidity areas this sensor is ideal for sewer and underground locations. Built in signal processing allows for highly accurate readings. Protective caps allow for moderate submergence protection.

Technical Specifications:

Gas Detected: Hydrogen Sulfide

Range: 0-100 ppm

Resolution: 1 ppm

Operating Life 2 Yrs in Air

Temperature: Continuous: 15% - 90% RH

Transducer: 3-electrode electrochemical

Response: 10 seconds

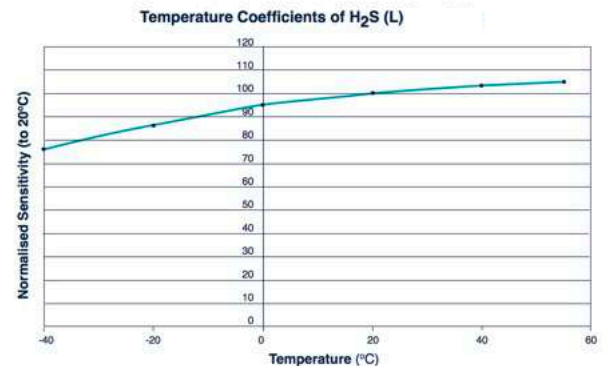
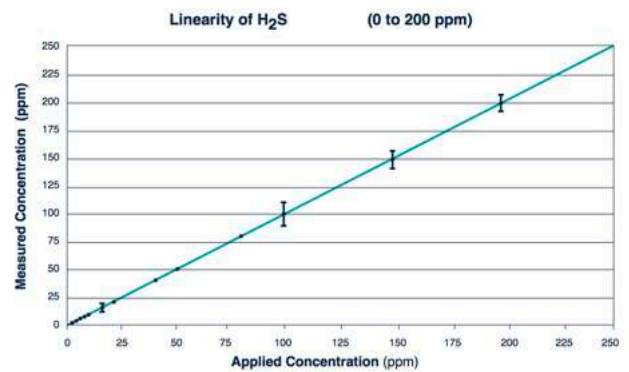
Repeatability: <+ 5%

Linearity: <+ 5%

Gas Entry: Diffusion

Calibration: Test Gas Cap

Encapsulation: Urethane, Epoxy



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Thermistor-200

200S Thermistor String

Over 650 ft (200 m)



4G Wireless Transmitter

200 Addressable Thermistor Sensors

2 Million Temperature Samples

Field-Siren™ Software Included

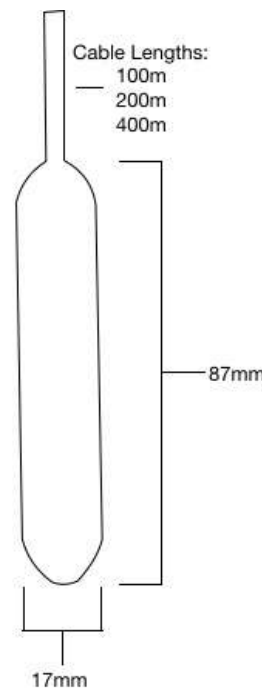
Ultra Low Power Applications

Monitor Temperature Wirelessly

The Blue Siren[®] Thermistor String was designed to be installed in sewers to detect areas where base inflow is entering the pipe. Identification of the sewers thermal gradient will allow you to determine cracks, illegal connections and areas where you may want to focus a camera.

Combine the Thermistor String with a flow sensors and measure the magnitude of Inflow and Infiltration entering the system.

Sensor:	Up to 200 Addressable Thermistor Inputs
	Embedded Encapsulated IP68 Temperature Sensor
Resolution:	16 Bit High Resolution
Length Options:	10m, 50m, 100m, 200m, 400m Custom Lengths also available
Cable Width:	5mm
Accuracy	±0.5°C Accuracy from -10°C to +85°C
Connectors:	Waterproof IP68
Enclosure:	IP67 Waterproof
Range:	-55°C to +125°C (-67°F to +257°F)
Resolution	greater than 0.05 °C



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WATERWAI™

Wireless Cloud Delivery and MultiModal Data Analysis

View and Analyze Real Time Data

Automatic Data Management

Radar Rainfall and Prediction

Manage Large Networks

Alarm Management and Ground Truthing

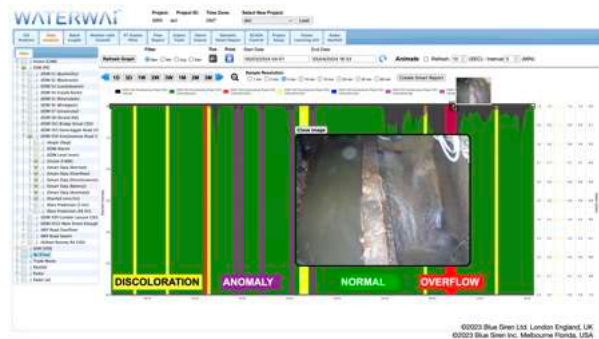
MULTIMODAL ENVIRONMENTAL ANALYTICS

WaterWAI is a cutting-edge, cloud-hosted multimodal data management system that seamlessly integrates environmental sensor data with images, video, and other media for unparalleled ground-truth validation. Designed for scientists and analysts, it unifies geospatial and time-series data with visual evidence, enhancing accuracy and contextual depth in environmental monitoring. WaterWAI's advanced GIS engine supports predictive heat-maps, real-time overlays, and in-depth analytics, including I&I (Inflow & Infiltration) assessments and IDF (Intensity-Duration-Frequency) modeling. With dynamic visualizations—scatter plots, line graphs, and spatial models—alongside intuitive data export and smart reporting, WaterWAI transforms fragmented datasets into cohesive, actionable insights. Powered by high-availability cloud infrastructure, it ensures rapid, AI-enhanced analysis, making environmental intelligence more intuitive, verifiable, and predictive than ever.

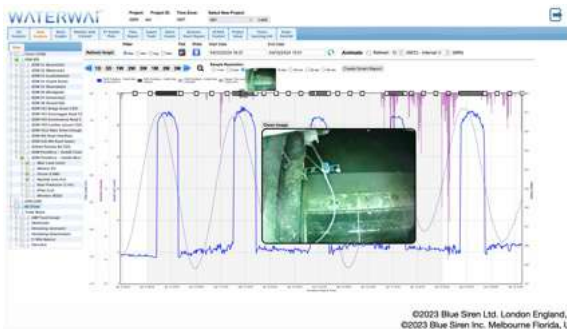
ACTIVE GIS with HEAT-MAP MODELING



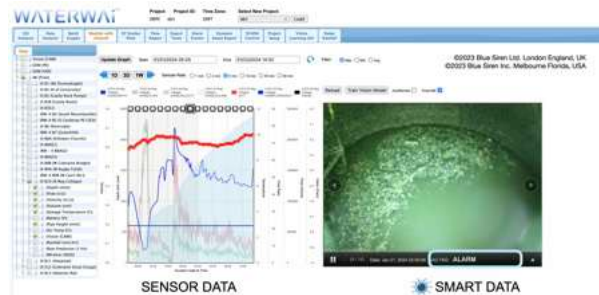
SMART (Ai) DATA TAGS . . Turn Images into Data



MULTIMODAL DATA ANALYTICS



TIMELAPSE MOVIE VIEWER



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