



HydroTerra

Environmental Monitoring Specialists

Yabby 1

Surface Water Cellular IoT Sensor Hub

Yabby 1 is a Surface Water Cellular IoT sensor hub with multiple integrated sensor options for Surface Water Level, Electrical Conductivity, pH, Turbidity and Temperature monitoring. Various mounting options includes pole, tank, stream and float (dam).



DataStream™

by HydroTerra

Overview

Ultra-low power consumption only requires D cell batteries. Connectivity is provided via Telstra's Cellular LTE-M/NB-IoT Network. With a selection of integrated sensors, you can monitor surface water level, electrical conductivity and temperature for a number of applications. The hubs are waterproof with an ultra-rugged IP68 housing and bespoke lightweight aluminum brackets. Depending on your requirements other bespoke options can include a feature-rich array of 9 inputs/outputs and multiple sensor connectivity.



Up to 9 inputs/outputs and multiple sensor connectivity



Weatherproof and ultra-rugged IP68 housing with compact and ergonomic design



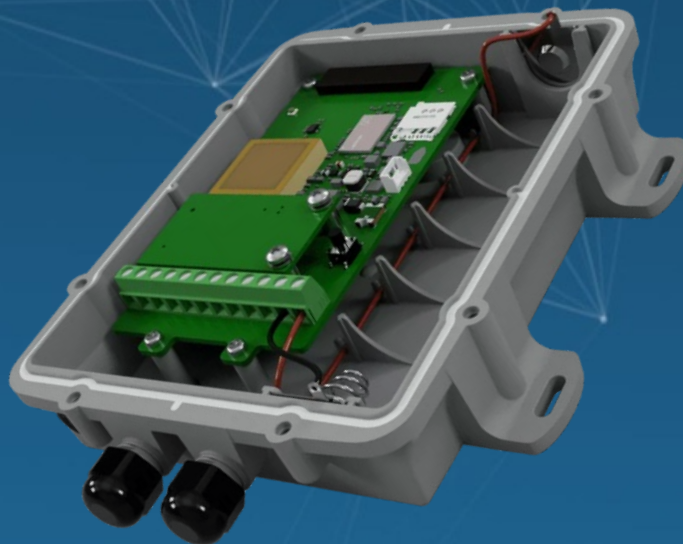
Ultra low power with battery life of up to 10 years



Cellular connectivity via Telstra's Cellular LTE-M/NB-IoT Network covering over 4 million sq km.



Includes anchoring system with 5kg weight for dams



DataStream[™]

by HydroTerra

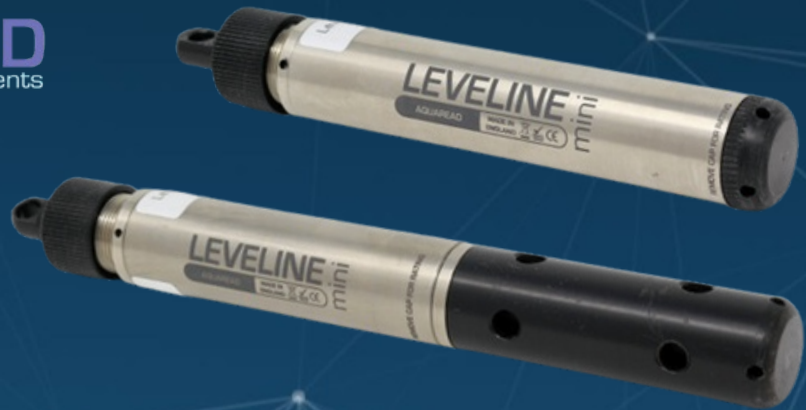
Yabby 1

Integrated Sensors

Seametrics



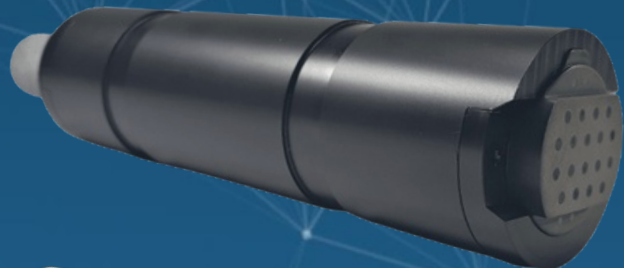
AQUAREAD
water monitoring instruments



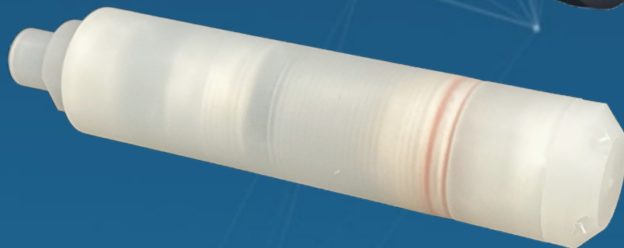
PHATHOM



ANB Sensors



WAK



SMARTS

Configurable Alerts	Configure email and sms alerts based on levels & WQ remotely from our cloud-based device management system.
Adjustable Sampling Rate	Adjustable sampling rate from once per day to every 30 minutes (Default = 6 Hours)
Integration	Third-Party Integration Webhook, TCP or HTTPS

TECHNICAL SPECIFICATIONS

Power

Cellular 1	Internal 13.0 Ah Lithium Thionyl providing up to 10 years maintenance free operation. 20 μ A max (Low power operation), 2 mA (AI sampling w/o sensors), ~50mA (Alarm messaging).
Cellular 2	Choice of 3500mAh LiPo rechargeable battery with solar panel or 2 x D Cell LTC batteries for a completely self-powered solution. Input Voltage 6-28V DC (max).

Input & Output Options

Cellular 1	Digital input/counter, 1 analog input, internal 3-axis digital accelerometer (optional), Built in battery monitoring, SDI-12 and MODBUS sensor data acquisition.
Cellular 2	Flexible I/O Card Architecture caters for plug-in cards that define the 9 inputs/outputs, offering limitless options for interfacing to sensors such as SDI-12, I ² C, 1-Wire, iButton, 4-20mA, RS-485, RS-232*, Analog Inputs, Digital Inputs, Pulse Counting, Digital Outputs, Switched Power, and more.

HydroTerra Platform

FEATURES



Monitor environmental sensors and device locations and parameters



Configure sample rates, device outputs and variable alerts



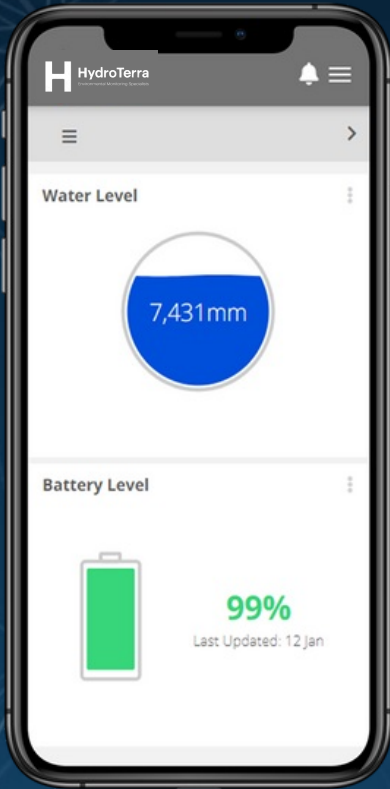
Control device outputs such as pumps, valves and gates



Receive SMS or email alerts based on variable thresholds



Download device data as csv files and images



OVERVIEW

Sensors are remotely monitored with our custom cloud based platform. Interrogate volume and level trends, change sampling intervals and set SMS and email alerts. Our platform is flexible and modular meaning we can set it up the way you like from our library of maps, charts, gauges and controls.

OTHER SERVICES

- Integrate other sensors to our platform
- White label the platform with your company branding
- Send your sensor data to third party platforms



DataStream™

by HydroTerra

PT12

SUBMERSIBLE PRESSURE/TEMPERATURE SMART SENSOR



APPLICATIONS

Rugged construction can replace analog sensors

Monitor groundwater, well, tank, and tidal levels

Pump testing

Flow monitoring

Features

- Modbus® RTU (RS485) and SDI-12 v1.3 interfaces
- Small diameter — 0.75" (1.9 cm)
- Pressure and temperature
- 316 stainless steel, fluoropolymer, and PTFE construction (titanium optional)
- Polyethylene, polyurethane, and ETFE cable options
- End code interchangeable with a 1/4" NPT inlet
- Specification per OSW Technical Memo 96.05 is an option on the 15 psig (10.5 mH₂O) and 30 psig (21 mH₂O) units

The **Seametrics PT12** Pressure/Temperature Sensor has been designed to provide trouble-free submersible operation in liquid environments. This sensor communicates via SDI-12 (v1.3) or Modbus® RTU (RS485) protocol.

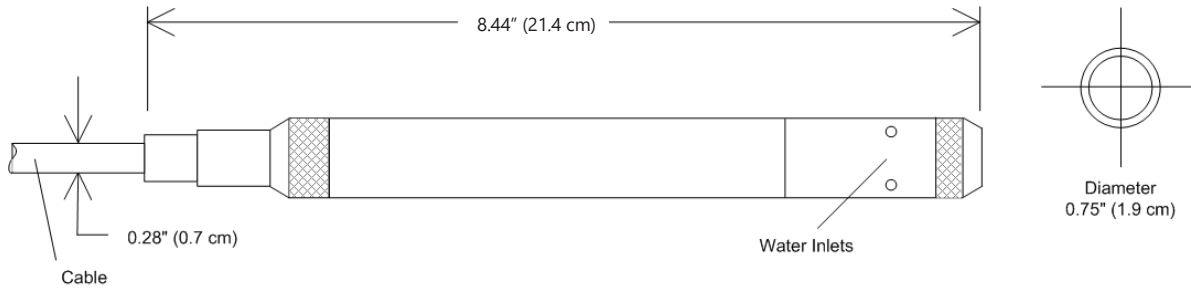
Pressure/level is measured with an extremely rugged and stable piezo-electric, media isolated pressure element and compensated for temperature using our proprietary calibration methodology. Temperature is measured using an on-board digital chip.

Seametrics also carries a special version of the PT12 designed to measure barometric pressure in reference to absolute pressure. If you are using an absolute PT12, contact your representative for details on how our PT12-BV can facilitate obtaining barometrically compensated pressure/level.

Contact Your Supplier



Dimensions



Specifications*

Size	Weight	0.8 lb. (0.4 kg)	
	Length	8.44" (21.4 cm)	
	Diameter	0.75" (1.9 cm)	
Wetted Materials	Body Material	316 stainless or titanium, Viton, Acetal	
Cable	Cable	Submersible: polyurethane, polyethylene, or ETFE; 4 lb./100 ft., 1.8 kg/30 m; 2000 ft max for Modbus®	
	Desiccant	1-3 mm indicating silica gel	
	Field Connector	Available as an option	
Temperature	Operating Range	Recommended: -15° to 55°C (5° to 131°F) Requires freeze protection kit if using pressure option in water below freezing.	
	Storage Range	-40° to 80°C (-40° to 176°F)	
Power	Voltage	9-15Vdc, electromagnetic & transient protection IEC-61000 - 4-3, 4-4, 4-5, 4-6	
	Supply Current	Active 3mA average/ 10mA peak; sleep 150 µA	
Communication	Modbus®	RS485 Modbus® RTU, output=32bit IEEE floating point	
	SDI-12	SDI-12 (ver. 1.3) - ASCII	
Output Channels	Temperature	Temperature	Depth/Level
	Element	Digital IC on board	Silicon strain gauge transducer, 316 stainless or Hastelloy
	Accuracy	±0.5°C — 0° to 55°C (32° to 131°F) ±2.0°C — below 0°C (32°F)	±0.05% FSO (typical, static) ±0.1% FSO (maximum, static) (B.F.S.L. 20°C)
	Resolution	0.06°C	0.0034% FS (typical)
	Range	-15° to 55°C (5° to 131°F)	Gauge PSI: 1 ¹ , 5, 7, 15, 30, 50, 100, 300 FtH ₂ O: 2.3 ¹ , 12, 35, 69, 115, 231, 692 mH ₂ O: 0.7 ¹ , 3.5, 5, 10.5, 21, 35, 70, 210 Absolute ² PSI: 30, 50, 100, 300 FtH ₂ O: 35, 81, 196, 658 mH ₂ O: 10, 24, 59, 200
	Compensated	---	0° to 40°C (32° to 104°F)
Max operating pressure	1.1 x full scale		
Over pressure protection	3x full scale up to 300psi		
Burst pressure	1000 psi (approx. 2000 ft or 600 m)		
Environmental	IP68, NEMA 6P		

*Specifications subject to change. Please consult our web site for the most current data (seametrics.com). Modbus is a registered trademark of Schneider Electric.

¹ ±0.25% accuracy FSO (max) at this range

² Depth range for absolute sensors has 14.7 PSI subtracted to give actual depth allowed.

User is responsible for reviewing end use application with their supplier for product suitability.

CT2X Smart Sensor

CONDUCTIVITY/TEMPERATURE WITH DEPTH/LEVEL OPTION



APPLICATIONS

Wetland surveys

Saltwater intrusion
monitoring

Agricultural runoff studies

Discharge monitoring

Features

- Measures/Records conductivity, temperature, salinity, and TDS with a depth/level option
- Low power
- Modbus® RTU (RS485) and SDI-12
- 0-300,000 $\mu\text{S}/\text{cm}$
- Linear and nLFn temperature compensation
- Small diameter — 0.75" (1.9 cm)
- 349,000 records in non-volatile memory
- Free, easy-to-use, new upgraded Aqua4Plus 2.0 software

The **Seametrics CT2X** Smart Sensor is a microprocessor-based submersible conductivity/temperature sensor with built-in data logging. This device stores thousands of records of conductivity, temperature, salinity, and total dissolved solids (TDS). The CT2X is also available with a depth/level option giving added functionality in the same sensor housing.

The CT2X incorporates 4-pole electrode cell measurement technology for conductivity, salinity, and TDS. This technology reduces fringe field interference errors, lessens inaccuracy caused by polarization effects, and lowers contact resistance problems. Four-pole electrode technology also allows users to work with one electrode over a wide range of conductivity. The conductivity element is constructed of epoxy/graphite, making it extremely durable for use in rugged field conditions. To clean, simply scrub with a small brush.

Depth and level is measured with an extremely rugged and stable piezo-electric, media isolated pressure element and compensated for temperature using our proprietary calibration methodology. Temperature is measured using an epoxy bead thermistor.

The CT2X is powered internally with two replaceable AA batteries. Alternately it can be powered with an external auxiliary power supply for data intensive applications. Several CT2Xs, or a combination of CT2Xs and other Smart Sensors, can be networked together and controlled directly from a single computer.

While most will use the CT2X with our free, easy-to-use Seametrics Aqua4Plus 2.0 software, it is by no means limited to that software. You can use your own Modbus® RTU or SDI-12 software or logging equipment to read measurements, thus tying into your existing telemetry and control systems.

Contact Your Supplier

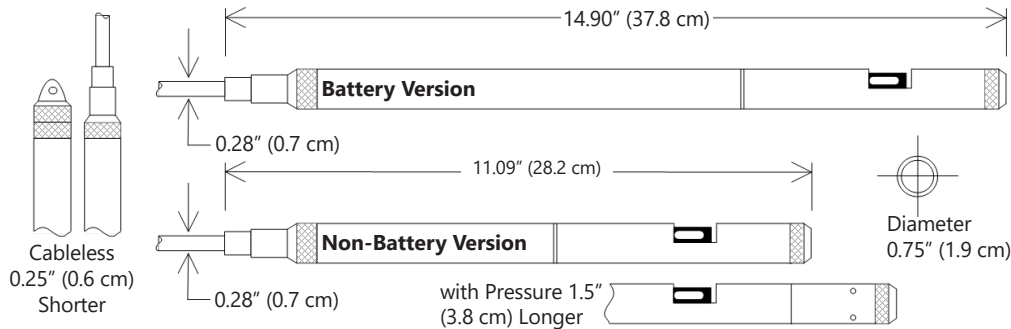


CT2X Smart Sensor

CONDUCTIVITY/TEMPERATURE WITH DEPTH/LEVEL OPTION



Dimensions



Specifications*

Wetted Materials	Weight	1.0 lb. (0.5 kg)		
	Body Material	Acetal, Viton® & 316 stainless or titanium		
	Cable	Submersible: polyurethane, polyethylene, or ETFE (4 lb./100 ft., 1.8 kg/30 m)		
	Desiccant	1-3 mm indicating silica gel (PSIG sensors only)		
	Field Connector	Standard		
Temperature	Operating Range	Recommended: -5° to 40°C (23° to 104°F) Requires freeze protection kit if using pressure option in water below freezing.		
	Storage Range	Without batteries: -40° to 80°C (-40° to 176°F)		
Power	Internal Battery	Two replaceable lithium 'AA' batteries - Battery life: 12 months at 15 min. polling interval (may vary do to environmental factors)		
	Auxiliary	12 Vdc - Nominal, 9-15 Vdc - range		
Communication		RS485 Modbus® RTU (output = 32-bit IEEE floating point), SDI-12 (ver. 1.3) - ASCII		
Logging	Memory	4MB - 349,000 records		
	Logging Types	Variable, user-defined, profiled		
	Logging Rates	4x/sec maximum, no minimum		
	Baud Rates	9600, 19200, 38400		
	Software	Complimentary Aqua4Plus 2.0		
	Networking	32 available addresses per junction (Address range: 1 to 255)		
	File Formats	.a4d and .csv		
Output Channels		Temperature	Depth/Level	Conductivity
	Element	30K ohm thermistor, Epoxy bead/external housing, Pyrex® glass	Silicon strain gauge transducer 316 stainless or Hastelloy	Epoxy/Graphite - 4-pole
	Accuracy	±0.25°C	±0.05% FSO (typical, static) ±0.1% FSO (maximum, static) (B.F.S.L. 20°C)	Static: ±0.5% of measured value (0 - 100,000 µS/cm)
	Resolution	0.1°C	0.0034% FS (typical)	(32 bit internal) 0.1 µS/cm, 0.001 mS/cm, 0.1 mg/L (TDS), 0.001 PSU
	Units	Celsius, Fahrenheit, Kelvin	PSI, FtH ₂ O, inH ₂ O, mmH ₂ O, mH ₂ O, inH ₂ O, cmHg, mmHg, Bars, Bars, kPa	µS/cm, mS/cm, mg/L, PSU
	Range	-5° to 40°C (23° to 104°F)	Gauge PSI: 1 ² , 5, 7, 15, 30, 50, 100, 300 FtH ₂ O: 2, 3 ² , 12, 35, 69, 115, 231, 692 mH ₂ O: 0.7 ² , 3.5, 5, 10.5, 21, 35, 70, 210 Absolute ³ PSI: 30, 50, 100, 300 FtH ₂ O: 35, 81, 196, 658 mH ₂ O: 10, 24, 59, 200	Conductivity ¹ : 0-300,000 µS/cm TDS: 4.9-147,000 mg/L Salinity: 2-42 PSU
	Compensated	---	0° to 40°C (32° to 104°F)	Thermal: None, Linear, or nLFn
	Warmup Time	---	---	200 msec
Max operating pressure	1.1 x full scale			
Over pressure protection	3x full scale up to 300psi			
Burst pressure	1000 psi (approx. 2000 ft or 600 m)			
Environmental	IP68, NEMA 6P			

*Specifications subject to change. Please consult our web site for the most current data (seametrics.com).

Modbus is a registered trademark of Schneider Electric. Pyrex is a registered trademark of Corning Incorporated.

1 Accuracy reduced at levels < 10 µS/cm and > 100,000 µS/cm

2 ±0.25% accuracy FSO (max) at this range

3 Depth range for absolute sensors has 14.7 PSI subtracted to give actual depth allowed.

User is responsible for reviewing end use application with their supplier for product suitability.



LevelLine-MINI Water Level sensors

The LevelLine-Mini is a highly accurate water level and temperature sensor. It can be used in a wide range of groundwater and surface water applications. Housed inside the sealed body is a temperature and level sensor.

The LevelLine-Mini Absolute uses a piezoresistive ceramic pressure sensor to provide excellent durability and long-term stability whilst delivering an impressive accuracy of 0.05% FS. A variety of level ranges are available and all of them are temperature compensated across a scale of -20 to 80 deg. C. A wide variety of cable configurations are available as well as an absolute or gauge option.

Across the range of LevelLine water level loggers we use an all Titanium body. Titanium is widely regarded as the best material to use in any water level logger but especially important when deploying into harsh or saline environments ensuring dependable long-term deployment.

Features

- 0.05% FS accuracy.
- Titanium body.
- 2 year warranty.
- SDI-12, RS485/MODBUS direct out communications.
- Vented option available
- LevelLine Mini-CTD version available for salinity and EC measurements.

Applications

- Groundwater level monitoring, pump tests, slug tests etc.
- Stream, lake and reservoir water level measurement.
- Wetland and flood water monitoring.
- Coastal monitoring.
- Tank level measurement.
- Long term continuous monitoring in boreholes, surface water and seawater applications.
- Process applications.
- Flood warning systems.

Deployment and Communication

The LevelLine-Mini is a transducer so it outputs level and temperature readings automatically once connected to a suitable data logger, display or other controller which utilises SDI-12, MODBUS/RS485 protocols.

Absolute and gauge versions are available along with vented and non vented cable options.

LevelLine Mini – CTD

The LevelLine-Mini can be purchased with a conductivity sensor included to give level, temperature, conductivity and salinity readings. This sensor comes with a connector on the back end of the probe so it can be connected to the Leveline PC kit for calibration using the LevelLink PC software.



The LevelLine-Mini-CTD uses the same 4 ring stainless steel conductivity as our multiparameter water quality probes for robust EC and salinity measurements.



LevelLine-Mini Water Level sensor

Specifications



		LevelLine-Mini	LevelLine-Mini-CTD
GENERAL	Temperature ranges	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Compensated: -20-80° C (-4-176° F)	Operational: -20-80° C (-4-176° F) Storage: -40-80° C (-40-176° F) Compensated: -20-80° C (-4-176° F)
	Diameter	22mm	22mm
	Length	87mm	146mm
	Weight	120g	210g
	Materials	Titanium body, Delrin nose cone	Titanium body, Delrin nose cone
	Output options	Modbus/RS485, SDI-12, Aquaread proprietary	Modbus/RS485, SDI-12, Aquaread proprietary
	Battery type & life	3.6V lithium; up to 10 years (see note 1)	N/A
	External power	6 - 24 VDC	6 - 24 VDC
MEMORY	Size	N/A	N/A
	Data records	N/A	N/A
	Log types	N/A	N/A
	Fastest logging rate & Modbus rate	10 per second	1 per second
	Fastest SDI-12 output rate	1 per second	1 per second
	Real-time clock	N/A	N/A
SENSOR	Type / Material	Piezoresistive; ceramic	
	Range (Gauge & Absolute)	10.0M (32.8 ft) 50.0M (164 ft), 20.0M (65.6 ft) 100M (326 ft)	10.0M (32.8 ft) 50.0M (164 ft), 20.0M (65.6 ft) 100M (326 ft)
	Maximum pressure	Max 2x range, Burst 2.5x range	
	Accuracy @ 15° C (note 2)	±0.05% FS	
	Accuracy (FS) (note 3)	±0.1% FS	
	Resolution	0.002% FS or 1 mm whichever is greater	
	Units of measure	Pressure: mbar (psi, kPa, bar, mbar, mmHg, inHg, cmH2O, inH2O, Level: in, ft, mm, cm and m available in LevelLink	
Electrical Conductivity	Range	NA	0 - 200mS/cm (0 - 200,000µS/cm)
	Resolution	NA	1µS
	Accuracy	NA	± 1% reading or ±1µS whichever is greater (see note 5)
Salinity (note 4)	Range	NA	0 - 70 PSU / 0 - 70 ppt (g/Kg)
	Resolution	NA	0.01PSU / 0.01 ppt
	Accuracy	NA	±1% reading or ± 0.1 unit if greater
Temperature sensor	Accuracy & resolution	±0.1° C; 0.01° C	
	Units of measure	Celsius (fahrenheit available in LevelLink)	
Warranty	Standard	2 years on all LevelLine-Mini versions	
	Extended	Options Available	

Notes: 1) Dependent on logging rate. 2) Across factory-calibrated pressure range at a constant temperature. 3) Across factory-calibrated pressure and temperature ranges. 4) Readings calculated from EC and temperature values. 5) At the calibration point at 25°C



Submersible Pressure Transducers - Level

High performance, accurate and stable submersible hydrostatic pressure transmitter. Multiple material options for housing and cable depending on the water characteristics (salty, corrosive, mineralised) and type of liquid (water, diesel, gasoline, kerosene).



TECHNICAL SPECIFICATIONS

Level Accuracy

Level 0.2% FS

Stability

Level 0.25% FS/year

Pressure Reference

Vented Gauge

Temperature

-20 ~ 85 °C

Cable Length

5m Standard

10m to 200m Optional

Materials

Housing

Stainless Steel 304 (Standard Option)

Stainless Steel 316 (Saline Water)

Polypropylene (Corrosive and Acidic Water)

Cable

Polyvinyl Fluoride (Standard Option)

PTFE (Corrosive Medium)

IP Rating

IP68


Dimensions

Standard - 110mm L x 23 mm diameter


Sludge Head - 116mm L x 47.5mm diameter

FEATURES


1 High Durable and Anti-corrosion

- ▶ Thickened SS304/ SS316L housing
 - ▶ Anti corrosive cables PE/PTFE
- 


2 Good Ingress Protection

- ▶ Double o-ring provide better sealing
 - ▶ Special gasket inclination design
- 

3 High Accuracy 0.2%FS

- ▶ High performance diffused silicon pressure sensor
- 

4 Various outputs

- ▶ Modbus RS485, 4~20mA, 1-5V
I2C, SPI, 0.5-4.5V, 0-5V
and other outputs for other model
- 



 ANB Sensors

AQ series of next generation, calibration-free pH sensors

ANB Sensors, a leading UK scientific technology company have developed ground-breaking solid-state sensors for pH, conductivity & temperature. These innovative and revolutionary sensors, require NO calibration, operate to depths of 50 metres in any orientation in fresh or saltwater environments. Uniquely they can be stored wet or dry, require simple maintenance, are extremely rugged and have exceptionally low on-going costs ideally suited for long term, cost effective remote monitoring in harsh and demanding environments. Thus, removing the fundamental issues seen with the conventional, fragile glass electrodes which require frequent manual calibration.

These intelligent and easy to use, calibration-free sensors, are ideally suited for use in any sensing platform in freshwater, saltwater and aquaculture applications.

CALIBRATION-FREE:

unlike other pH sensors that need frequent re-calibration, ANB's patented technology means that the sensor is automatically calibrated in-situ without the need for manual intervention.

ADAPTABLE:

these calibration-free pH sensors can be deployed autonomously or fit on any vehicle, sonde or monitoring platform.

ROBUST & RELIABLE:

these solid-state sensors can be stored wet or dry without any degradation of performance, have no special handling requirements and operate in any orientation, delivering consistent & reliable performance in demanding environments.

AFFORDABLE:

being cost effective and extremely low maintenance, these revolutionary sensors deliver up to 70% savings against operating costs of conventional sensors.

INTELLIGENT:

constantly monitoring themselves these sensors provide real time feedback on sensor performance, continuously self-calibrating and automatically notifying an operator should user intervention be required.

CHOICE:

2 models are available for operating at different depths and applications, choose from sensors designed to operate up to 5m & 50m depths, plus an integration kit that allows incorporation to existing sensing platforms and vehicles.

FLEXIBLE:

automated operation for schedule and sample frequency plus manual command and sleep mode, data can be accessed via RS232 or RS485 communications, with analogue connectivity scheduled for future implementation.

STORAGE:

on board 8GB memory allows storage of >15 million sensor readings of pH, conductivity, and temperature.

BIOFOULING:

these sensors are designed to stop biofouling as standard, by electrochemically inhibiting the formation of biofilm on the transducer.



((•)) ANB Sensors

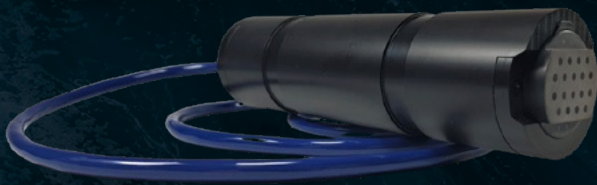
AQ series of next generation, calibration-free pH sensors

APPLICATIONS:

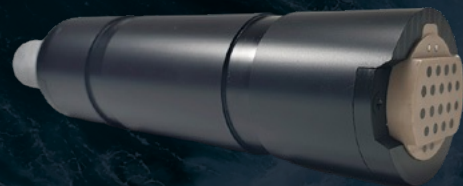
Oceans, Coastal, Estuaries, Rivers, RAS facilities, Offshore, Aquaculture Farms, Profiling, Ponds, Well Boats & Lakes.

DEPLOYMENTS:

Profilers, Buoys, Vehicles, Moorings, River Stations, Sondes, Ferry boxes, Flow-through Systems & Flow Lines.



AQ5
5m rated



AQ50
50m rated

SPECIFICATIONS

pH range: 2 – 10

Resolution: 0.01 pH

Accuracy: +/- 0.05 pH

Response: Instantaneous

Salinity: 0 – 40 ppt

Temperature Resolution: 0.1C

Operational Temperature: -5 - 40°C

Communications: RS232 / RS485 / USB

Power: 5 – 42 VDC

Power Consumption: 90 mA

Sleep Mode Consumption: <1 mA

Operational Modes: timed / polled / continuous

On Board Storage: 8GB

Dimensions: AQ5 165mm / AQ50 191mm
long x 41mm Ø

AQ5 Weight: 0.26Kg (air) 0.04Kg (water)

AQ50 Weight: 0.30Kg (air) 0.08Kg (water)

AQ5 Cable 1m supplied as standard

AQ50 Cable Optional purchased separately

AQ5 / AQ50 DTU Optional purchased separately

Replacement transducer: AQ5/50ST
purchased separately

AQ5 Connection: via pigtail

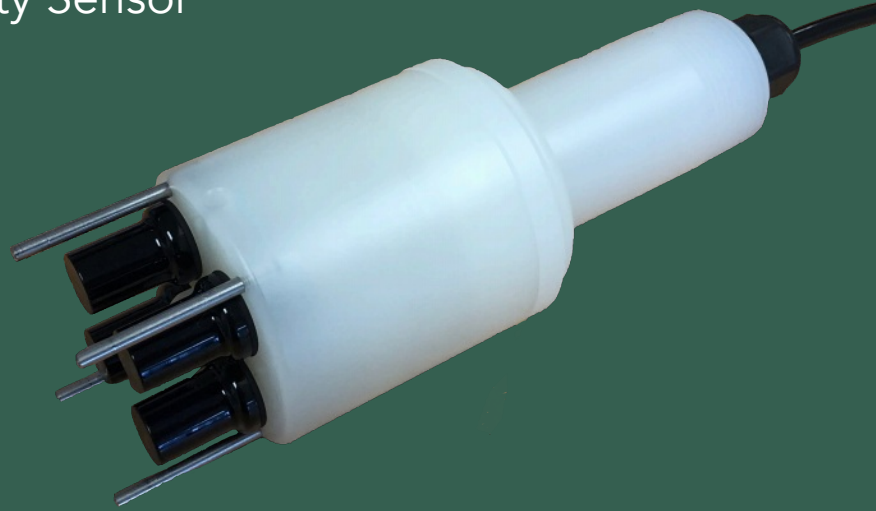
AQ50 Connection: via 6 pin MCBH6M connector

T30-SWW

Suspended Solids / Turbidity Sensor

Get better control and monitoring of your Stormwater run-off, Sediment, Raw Water and Surface Water. Bringing sophisticated process control suspended solids sensors to Stormwater and Waste

- Four beam self compensating sensor, virtually eliminates drift due to contamination or electronic ageing.
- Immersion style.
- Simple user interface.
- Accurate, repeatable & reliable.
- Low power suitable for remote installations
- Connects directly with 4-20mA and Modbus RS485, or SDI-12



T30-SWW Measurement Range, 0 to 1000 NTU, 0 to 750mg/l SiO₂

Multi-beam sensor using both attenuated and 90° scattered light. The multi-beam system compensates for fouling of surface and ageing of electronics providing a very repeatable output.

Applications include;

- Stormwater sediment runoff monitoring
- Flocculant dosing and control
- Wastewater monitoring and control
- Monitoring of clarifier overflow weirs
- Raw water inlet turbidity measurement to water treatment plants
- Surface water monitoring
- Solids loading in rivers and streams
- Final outlet of effluent from DAF plants
- Filtration Monitoring and control

Specifications

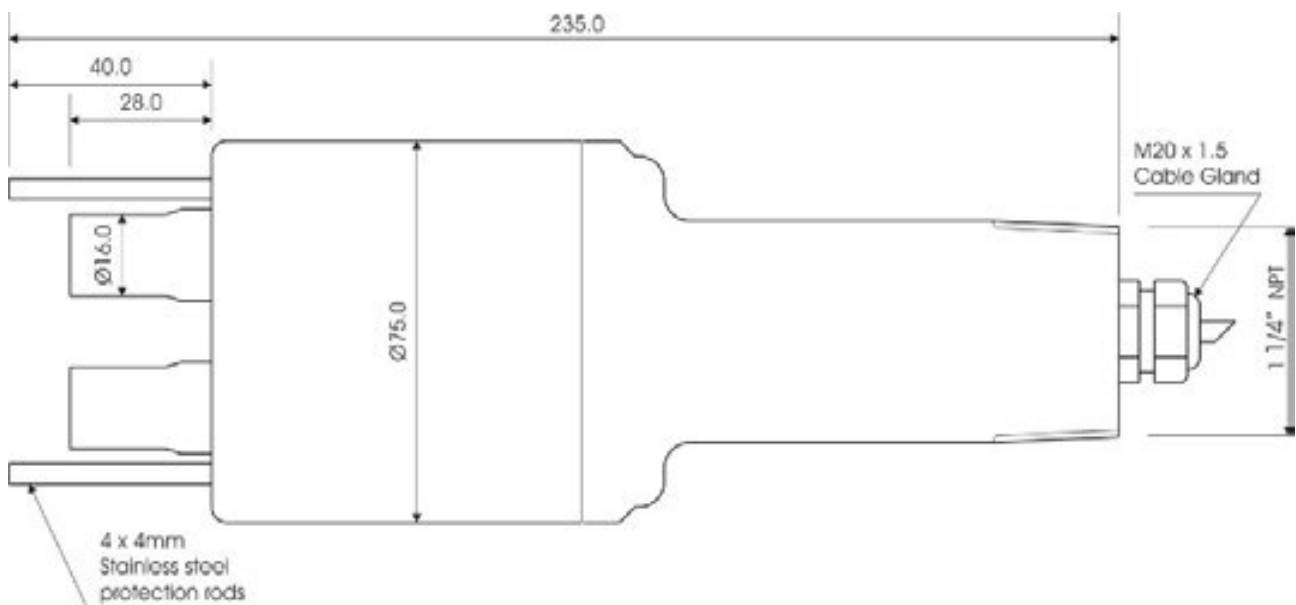
Measuring Range	Immersion Sensor: 0 to 1000 NTU 0 to 750mg/l SiO ₂ (the measuring range will vary according to media and particle characteristics)
Accuracy	+/- 2% of reading
Repeatability	+/- 1% of reading
Temperature	0 to 50°C operating range
Pressure	5 Bar
Cable	Polyurethane covered cable rated to 95°C. Extension cables can be supplied to extend the cable up to 100m.
Outputs	Modbus RS485, 4-20mA and 1 x solid state relay or SDI-12 only
Power Requirement	Modbus only - 0.25W at 3.7V 4-20mA and Modbus - 9 to 32V DC SDI-12 - 0.1W (working), 0.002W (asleep) at 3.7 to 32V DC

Model Number Selection Guide

Body Style	T30-SWW - Immersion Body
Wave Length	880nm - Standard.
Body Material	PP - Polypropylene, Fingers - Polysulfone
Cable	10- Supplied with a 10m cable as standard. Other lengths available
Output	MB - Modbus RS485, or SD - SDI-12
Jet Nozzle	Requires water or airflow. Air to 5 Bar

Sample model no; T30-SWW-880-PP-10-MB

Calibration Shipped with PC based App and USB Dongle





TRIPOD

**NUMERICAL
MULTIPARAMETER PROBE**
NUMERICAL TECHNOLOGY
FOR ENHANCED
RELIABILITY MEASURES

RANGE DIGISENS / DATASHEET

MEASURED PARAMETERS

Temperature / pH, ORP / Conductivity, salinity, TDS / Oxygen (% Sat, ppm, mg/L) / Turbidity (NTU, FNU), SS (mg/L)

FIELD OF APPLICATIONS

Wastewater / Surface water / FishFarming, Aquaculture / Drinking water

MULTIPARAMETER PROBE

The new numerical TRIPOD of PONSEL MESURE allows to measure until 9 physico-chemical parameters in the same time dedicated to the quality of waters among the following ones: pH, ORP, Temperature, DO (by optical way), turbidity (NTU / FNU), Turbidity (mg / L), conductivity, salinity, TDS...

READY TO BE CONNECTED

Compact, robust and communicating in Modbus R485 or SDI12 the TRIPOD can be associated with every type of terminal with inlet RS485 Modbus (automation of remote processing, transmitter, to logger) or SDI12 (acquisition device, logger with transmission GSM / GPRS, sampler ISCO, flowmeter).

Resisting the disturbances: a pre-amplification is integrated into the sensor and the digital processing of the signals allows an extreme fiabilisation of the measures.

The TRIPOD associated with the handheld multiparameters ODEON allows an optimization and a fiabilisation of your physico-chemical measures : important capacity of recording (until 100 000) and large autonomy.

ADVANTAGES



- Measure until 9 parameters with the same probe
- Technology of oxygen measure by optical way
- Numerical communication Modbus RS-485 and SDI12
- Compact, strong and tight probe

SENSORS TECHNICAL CHARACTERISTICS

	Parameter	Range	Accuracy	Sensor
PH/ORP/T°C	Temperature	0,00 to + 50,00 °C	± 0,1°C	NTC Inox
	pH	0,00 to 14,00 pH	± 0,1	plasticized PONSEL "PLASTOGEL" ® electrolyte Ag / AgCl reference
	ORP	- 1000,0 to + 1000,0 mV	± 2 mV	Platinum electrode Ag / AgCl reference
OPTOD	Dissolved Oxygen/T°C	0,00 to 20,00 mg/L 0,0 to 200,0 % SAT	± 0,1 mg/L ± 1 %	PONSEL OPTOD optical luminescence technology ASTM D888 – 05 Compliance
C4E	Conductivity	0,0 to 200,0 µS/cm 0 to 2 000 µS/cm 0,00 to 20,00 mS/cm 0,0 to 200,0 mS/cm	± 1 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
	Salinity	5,00 - 60,00 ppt	± 1 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
NTU	Turbidity	0,00 to 50,0 NTU 0,0 to 200,0 NTU 0 to 1000 NTU 0 to 4000 NTU AUTOMATIC Range 0-4500 mg/L	± 1 % of the full scale NTU	IR 90° technology ISO 7027 compliance

Probe

Interface signal	Modbus RS485 /SDI12
Measurement frequency	< 1 s max
Power supply	5-12 Volts
Dimensions	Diameter max. 75 mm, Length (without hook) 288 mm, Length with hook 394 mm
Weight	1300 g
Material	EPDM, PVC, Inox
Pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fischer Connector
Protection	IP68

WIRING DIAGRAM

