

 ANB Sensors

# AQ series of next-generation, calibration-free pH sensors

ANB Sensors, a leading UK scientific technology company has developed ground-breaking solid-state sensors for pH, conductivity & temperature. These innovative and revolutionary sensors, require NO calibration, and 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 ongoing 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, 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.



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## 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:** +/- 0.1 pH (high salinity)  
+/- 0.1 pH (low salinity)

**Operational Salinity for pH:** 0.025 – 40 ppt

**Response:** Instantaneous

**Temperature Resolution:** 0.2 °C

**Operational Temperature:** -5 to 40 °C

**Communications:** RS232 / RS485

**Power:** 6 to 42 VDC

**Power Consumption:** 90 mA

**Sleep Mode Consumption:** 60 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)

**DTU + 0.6m cable:** Supplied as standard

**Replacement transducer:** purchased separately

**Connection:** via 6 pin MCBH6M connector or pigtail cable