



# Technical Specification

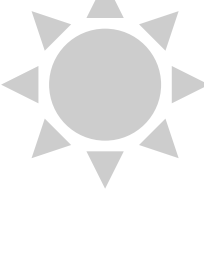
## Materials and Dimensions

- Main Housing:** Polycarbonate
- Sealing:** Polyurethane
- Potting Compound:** Polyurethane
- Probe Housings:** Polycarbonate
- All Cables:** PVC
- Fixings:** 316 Stainless steel
- Ingress protection:** IP68
- Impact resistance:** IK10
- Anchor:** 316 Stainless steel
- Tether Cord:** 316 Stainless steel
- Ambient temperature (min.):** -30 °C
- Ambient temperature (max.):** 70 °C
- Approximated weight:** 1000 g




Part	Dimension (mm)	Material	In contact with water	Listed as small surface area item
Main Housing	442.4 x 258 x 352.4	Polycarbonate	Yes	Yes
PCB Potting Chamber	152 x 113 x 44	Polycarbonate	Yes	Yes
Potting Compound	400 x 113 x 44	Polyurethane	Yes	Yes
Probe Holder	315 x 240 x 46	Polycarbonate	Yes	Yes
Battery Potting Chamber	100 x 100 x 44	Polycarbonate	Yes	Yes
Li-Ion Battery	78 x 68 x 39	Stainless Steel	No (Potted)	Yes
Solar Panel	305 x 282 x 2	Silicone	Yes	Yes
Cable Ties	150 x 7 x 1	Nylon	Yes	Yes
Screw Fixings	2.5 x 6	316 Stainless Steel	Yes	Yes
Anchor	270 x 150 x 150	316 Stainless Steel	Yes	Yes
pH Probe	310 x 40 x 40	Polycarbonate	Yes	Yes
DO Probe	252 x 50 x 50	316 Stainless Steel	Yes	Yes
Turbidity Probe	165 x 26 x 26	Stainless Steel	Yes	Yes
Conductivity Probe	230 x 40 x 40	Polycarbonate	Yes	Yes
Cables	500 x 7 x 7	PVC	Yes	Yes


## Technical Overview



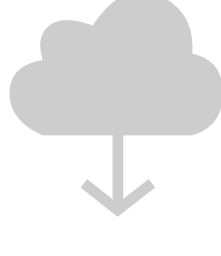
**Working Conditions**  
Device will work -30C to +70C (some probes will be switched off at certain temp thresholds)



**Working Environment**  
Device is IP68 rated.



**Electrical Consumption**  
The electronics run off 5v power supplied and stored by our Solar Circuit.



**Data**  
Data is sent using the following methods: Sigfox, LoRa, Wifi, GSM



- Display data in under 2 minutes from opening the box
- Solar Powered – Long battery life
- Samples from multiple different depths
- Communication methods to fit every environment
- Managed, New device before recalibration

## Parameter Overview

**Conductivity**

Range: 0 - 100 ms/cm  
Resolution: 0.01 ms/cm  
Accuracy: ±1% FS  
Max depth: N/A  
Temperature range °C: 0 ~ 50 °C  
Cable length: 500 mm  
Internal temperature sensor: Yes

**Turbidity**

Range: 0 - 100 µg/l standard (Chlorophyll)  
0 - 100 FTU standard (Nephelometer)  
Detection Limit: 0.1 % of full range  
Reaction Time: 90% in 13s  
Cable length: 500 mm  
Output: Digital RS232 and Analogue 0-5 Vdc

**Dissolved Oxygen**

Range: 0 - 20 mg/L  
Response time: - 0.3 mg/L/per sec  
Pressure range: ≤0.3 Mpa  
Max depth: N/A  
Temperature range °C: 0 - 45 °C  
Cable length: 500 mm  
Internal temperature sensor: Yes

**pH**

Range: 0 - 14 pH  
Resolution: +/- 0.01  
Max depth: N/A  
Temperature range °C: 0-65 °C  
Cable length: 500 mm  
Internal temperature sensor: Yes

## Additional Parameters

SALINITY

AMMONIA

METALS

BOD

SULFIDE

RHODAMINE

COD

SULFITE

CRUDE OIL

TURBIDITY

NITRATES

BLUE/GREEN ALGAE

TDS

ORP

PHENOL