



## FRESH WATER CONDUCTIVITY SENSOR 3383

*A sensor for measurement of conductivity and temperature in fresh water.*

Fresh Water Conductivity Sensor 3383 measures the conductivity and temperature of fresh water. It can be used separately or in conjunction with other sensors to monitor the suitability of fresh water for aquaculture and other purposes.

The sensor consists of a 4-electrode probe and a cylindrical body housing the electronic board. A 10-pin receptacle for an Aanderaa Watertight Plug is fitted on the top.

The 4-electrode principle is used with alternating current for measuring the conductivity. A sample is taken once every second and a micro controller computes the average conductivity over the last reading interval. The electrodes are galvanic isolated from the rest of the measuring system.

Water temperature is sensed by a platinum element in a half-bridge configuration, and the output is Aanderaa VR22 analogue signal.

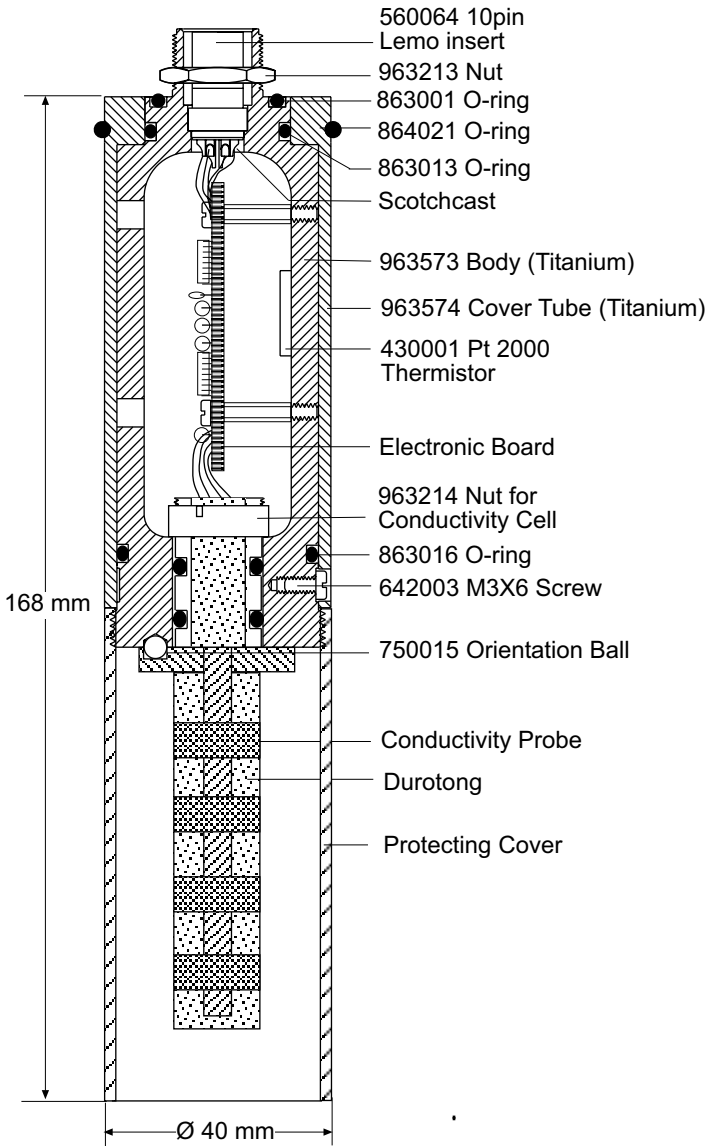
Cables up to 100 meters in length can be used for connecting the sensor to the reading unit. Up to 5 C/T Sensors fitted to a Sensor String 3258 and connected to an Aanderaa Data Logger DL 7 or Data Buoy 3327 will provide depth conductivity /temperature profiles in fresh water.

A special version, designated 3383S with range 0 - 2000 mS/cm, is also available.

### Note:

The reading of this sensor can be affected if fouling takes place. It should therefore be inspected regularly and cleaned at the probe. To obtain maximum accuracy the sensor should have a minimum of 0.1m water in all directions.

# SPECIFICATIONS FOR FRESH WATER CONDUCTIVITY SENSOR 3383



**Conductivity, Output 1**  
**Range:** 3383 0–1000 μS/cm.   
 3383S 0–2000 μS/cm.   
**Accuracy:** ±2% of range.  
**Resolution:** 0.1% of range.  
**Signal Format:** SR10.

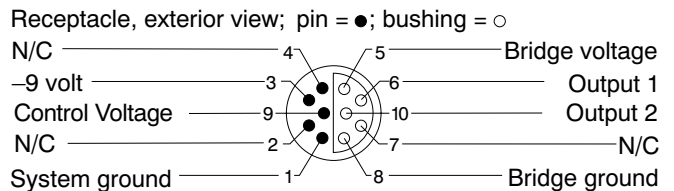
**Temperature, Output 2**  
**Range:** –7.5 to +41°C.  
**Accuracy:** 0.1°C.  
**Resolution:** 0.05°C.  
**Signal Format:** VR22.  
**Time Constant (63%):** 30 seconds.

**Current Consumption:** 2.2 mA average.  
**Supply Voltage:** 7-14VDC  
**Electrical Connection:** 10-pin plug part no. 3216 or ready made cable 3217, 10 m long.

**Materials:** Titanium and Hostaform.  
**Net Weight:** 200 grams.  
**Warranty:** Two years against faulty materials and workmanship.

**Service Instructions:**  
 The sensor probe should be cleaned every 3 to 6 month depending on the pollution in the surrounding environment. Use mild soap water and rinse thoroughly with clear water. Recalibration of the sensor at the factory is recommended once a year.

## PIN CONFIGURATION



## CALIBRATION

The sensor has been calibrated at the factory at these conductivities:

Conductivity (μS/cm)	Reading, N

and these temperatures:

Temperature (°C)	Reading, N

**Serial No:**

The calibration points give the following coefficients:  
 Output 1 – Conductivity (μS/cm) = A+BN+CN<sup>2</sup>+DN<sup>3</sup> (N = raw data reading).

A	C	0
B	D	0

Output 2 – Temperature (°C) = A+BN+CN<sup>2</sup>+DN<sup>3</sup>

A	C	
B	D	0

Date ..... Sign.....

Latest version is on the Internet

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