



# NMEA 2000 Temperature Sensor WiFi Configuration Interface

## User Guide

### Installing the Sensor


The sensor will require 6mm (1/4 inch) or smaller bolt or stud for installation. Mount the sensor to the appropriate position in order to measure the surface temperature of the device of interest (alternator, shaft seal, oil filter etc). The sensor will measure temperature from -50C (-58F) up to 125C (257F). Installing the sensor in a place where the temperature could reach outside of this range may damage the device.


### Connecting the Hardware to an Existing NMEA 2000 Backbone

Connect the NMEA 2000 drop cable from a “T” connector to the sensor hardware. The sensor is powered via NMEA 2000. All NMEA 2000 signals and power are galvanically isolated from the sensor’s copper body. If you don’t have an NMEA 2000 network, you can watch this video to understand how to set one up: <https://www.youtube.com/watch?v=U4jAxINtF5w>

### Configuring the Sensor


**NOTE !!! - Please note that when editing the settings there is a delay in applying the new settings. Check “Device Information” page or the blinking pattern of the Status LED to confirm that the new settings have been saved. For details, please consult the Status LED Section of this document.**

All Across Ocean System’s NMEA 2000 sensors are equipped with built-in  interface for configuring the sensor.

Once the sensor is connected to a powered and properly terminated NMEA 2000 network, the sensor LED will start flashing with an interval of about 3 seconds. This is an indication of normal sensor operation. At this point, the  interface in the sensor is disabled.

To enable the interface and configure the sensor, execute the steps in the paragraph below:

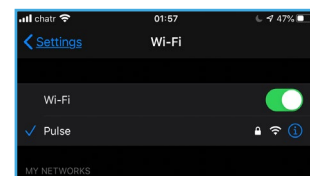
### Enabling the Adapter

1. Power on the sensor by connecting it to the NMEA 2000 network. The Status LED on the sensor will be flashing with a rate of 0.2s at 3 seconds intervals, indicating that the sensor is functioning properly.
2. About 15 sec after power-up, the LED flash pattern will change and the LED will start flashing much faster with rate of 0.4s at 0.8 second intervals (0.4s On/0.4s Off). Now disconnect the sensor from the power.
3. After a few seconds, reconnect the sensor again to the NMEA 2000 network (power it on).
4. On your smart phone or computer, go to the  settings. Find and connect to the following network:

SSID = **Pulse** and enter

Password = **#Pulse-00000**

5. Once connected, you are ready to configure your pressure sensor!

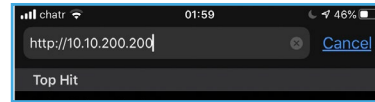


## Connecting to the Sensor and Configuring it for the Specific Pressure Source



1. Scan the QR code or open your web browser - preferably Chrome. Make sure that there are no other tabs or browser windows open.

2. On the address field, type “http://10.10.200.200” and press “Enter”.



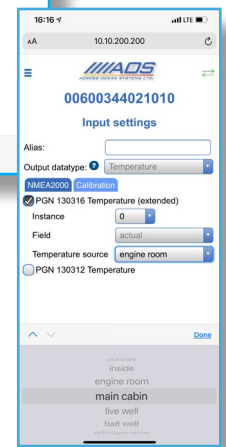
3. Tap the menu icon and navigate through the different pages.

4. On the “Device settings” page type an appropriate name for your sensor. It will replace the serial number currently displayed as a title. The name typed, automatically populates the “Description 1” field that is used in the NMEA2000 output. There is also an optional “Description 2” field.



5. On “Input settings” page select the one of the two possible PGNs that this sensor type will output to the NMEA2000 network.

6. Select from the list the temperature data source to match your usage by picking the most appropriate option from the list:



- sea
- outside
- Inside
- engine room
- main cabin
- shaft seal
- heat index
- live well
- bait well
- refrigeration
- freezer
- heating system
- dew point
- wind chill

7. After changing the settings wait for the Status LED to indicate that the save is complete.

8. Calibration for most temperature sensors is not necessary and our advice will be to not calibrate the sensors as they are factory calibrated.

If for some reason you decide to do that please keep in mind that:

- Offsetting the value is done by entering one calibration point
- Linear interpolation by entering two calibration points

- ⚠ Please keep in mind that entering the wrong calibration values will lead to unpredictable results.
- ⚠ If you have multiple sensors on the NMEA2000 network, please change the “Instance” field of each sensor to unique number.

### Status LED Blink Codes:

On the majority of the Across Ocean Systems’ sensors you will see a blinking Status LED. It is designed to provide information of the status of the sensor and also to help troubleshoot it, if necessary.

The blink code is represented by two numbers. The first number is the total duration of the repeated pattern. The second number is the duration in 1/1000 of the second in which the LED remains lit. Graphically 400/200 will be represented as and then it will repeat again.

The blinking patterns are as follows:

- 3000/200 Sensor is operation properly- everything is OK .....
- 400/200 - Ready for enabling the Access Point by restarting the unit .....
- 3500/3000 - Save pending. **Do not disconnect from power!** .....
- 500/100 - Internal error .....
- 1500/500 - Internal error .....
- 800/200 - NMEA 2000 error .....
- 1000/500 - Sensor error (out of sensor range) .....

