



# Gobius C

## User guide for NMEA 2000

Issue 1

*The document applies to mobile app version 3.4.3*

*Minor differences may apply for later versions*

Copyright Gobius Sensor Technology AB 2025-06-05



## Overview:

The main purpose of the sensor is to send fluid level information (PGN 12705) on the NMEA 2000 bus

The Gobius C sensor is compliant with the latest NMEA 2000 specification.

The sensor will respond to requests for the following PGNs:

- NMEA 126996 Product Information
- NMEA 126998 Configuration Information

NMEA 2000 compliance for Gobius C:

Parameter title	Value
Manufacturers code (Gobius Sensor Technology AB)	1398
Version number of NMEA Message Database	3.000
NMEA's Product Code for GOBIUS C	12846
Load Equivalency	2 = Less than 100 mA

NMEA 2000 supported Parameter Group Numbers for Gobius C:

Message Name / Functionality	PGN
Address Claim	ISO 060928
Product Information	NMEA 126996
Configuration Information	NMEA 126998
Request / Group Function	NMEA 126208
Command Group Function	NMEA 126208
Acknowledgement Group Function	NMEA 126208
Acknowledgement	ISO 059392
Request	ISO 059904
TX/RX PGN List Group Function	NMEA 126464
Heartbeat PGN	NMEA 126993
Commanded Address	ISO 065240
Transport Protocol, Data Transfer	ISO 60160
Transport Protocol	ISO 60416
Fluid Level	NMEA 127505



## **Installation and setup:**

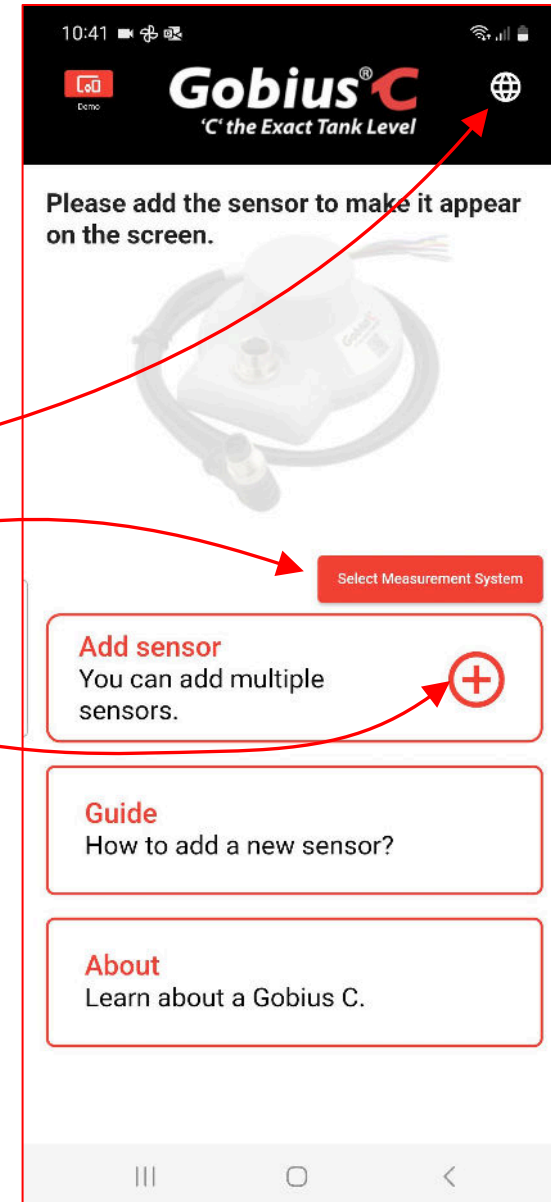
### **STEP 1**

- Download and install the Gobius C app
- Install the Gobius C sensor in the NMEA2000 network and turn on the power



## STEP 2:

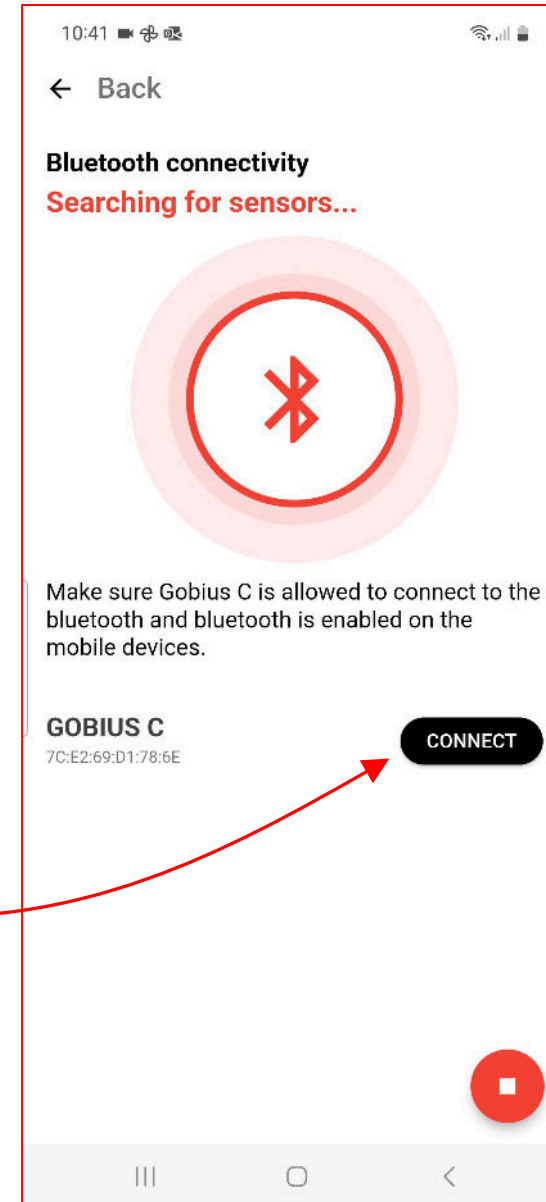
- Start the app
- Select language using the globe symbol
- Select measurement system
- Search for and add the Gobius C sensor by pushing the plus sign





### STEP 3:

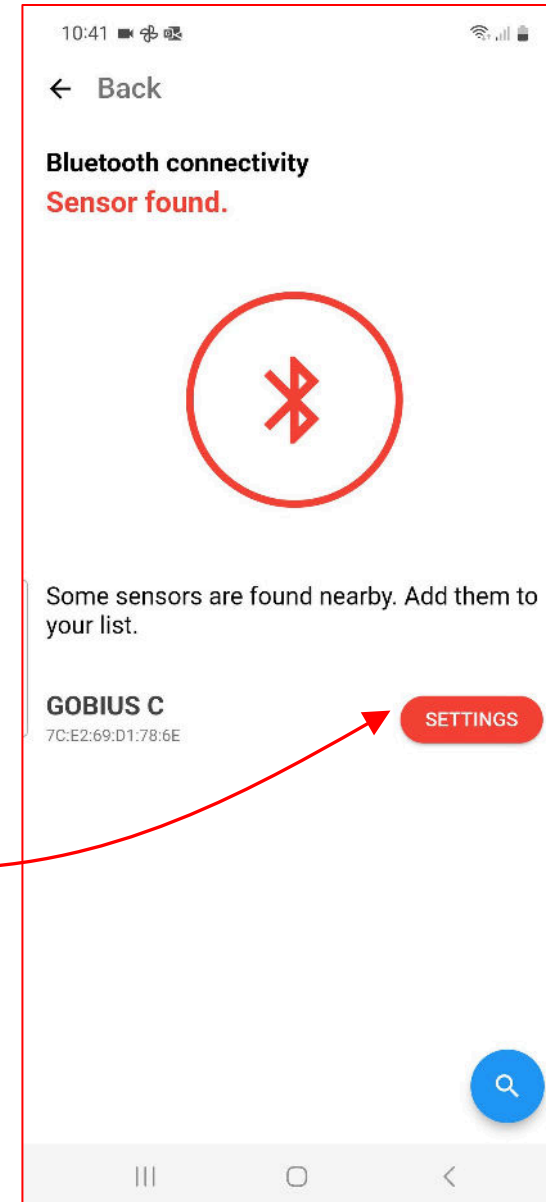
- The app searches for the sensor
- When found, the CONNECT button is shown.
- Press the CONNECT button





#### STEP 4:

- The app connects to the sensor and shows the SETTINGS button if successful
- Press the SETTINGS button



# Gobius®

**'C' the Exact Tank Level**

## STEP 5:

- Name the sensor/tank if desired.
- Fill in a comment if desired. ***This text will be shown as Installation Description #1 in PGN 126998 on the NMEA2000 bus.***
- Select the fluid type. ***(See below for mapping to NMEA 2000 Fluid Type)***
- Select tank geometry
- Set the tank depth which is the distance from the sensor to the bottom of the tank.
- Set the tank capacity (Volume)

10:43

← Back

**Add a new sensor**

Fill the following form to add the sensor for optimal use.

**Name of the sensor**

Fresh water tank

**Comment on sensor (not displayed)**

Starboard water tank

**Fluid Type**

Water tank

**Tank geometry**

Rectangle

Provide more specification of selected tank type. (Click) **Tank Calculator** to know how to calculate.

Tank depth (mm)	Volume (litre)
634	63

☐ Tank adapter for metal tanks

**Installation location :**

||| ○ <

Scroll down

## STEP 6:

- Select if an adapter for metal tanks is used. The sensor will then compensate for the thickness of the adapter
- Select "Installation Location = On sea" if the measurements shall be averaged (smoothed).
- Leave "Bluetooth Off" in the "On" state
- Press "Output settings"

11:36

← Back

Water tank

**Tank geometry**

Rectangle

Provide more specification of selected tank type. (Click) **Tank Calculator** to know how to calculate.

Tank depth (mm)      Volume (litre)

634      63

☐ Tank adapter for metal tanks

**Installation location :**

☒ On land      ☐ On sea

**Bluetooth**

☐ OFF (after 10 sec)      ☒ ON

Output settings      Advanced settings

Save



## STEP 7:

- **Select NMEA 2000**
- **Set the NMEA 2000 Fluid Instance if you have more than one tank sensor in the network.**  
**Valid values are 0 to 15.**  
**(check that this value is not used by another device).**

10:43

← Back

Rectangle

Provide more specification of selected tank type. (Click) **Tank Calculator** to know how to calculate.

Tank depth (mm)      Volume (litre)

634      63

☐ Tank adapter for metal tanks

**Installation location :**

☐ On land      ☒ On sea

**Bluetooth**

☐ OFF (after 10 sec)      ☒ ON

☒ NMEA 2000

**NMEA 2000 fluid Instance:**

3

**Resistive output**

☐ 10-180 Ohm      ☐ 240-33 Ohm



### STEP 8:

- Scroll down and press the "Save" button

11:37

← Back

Voltage output 0-5V : ☐

**Alarm level 1**

Mode :

Level :  %

Output

☒ Active low (NPN) ☐ Active high (PNP)

**Alarm level 2**

Mode :

Level :  %

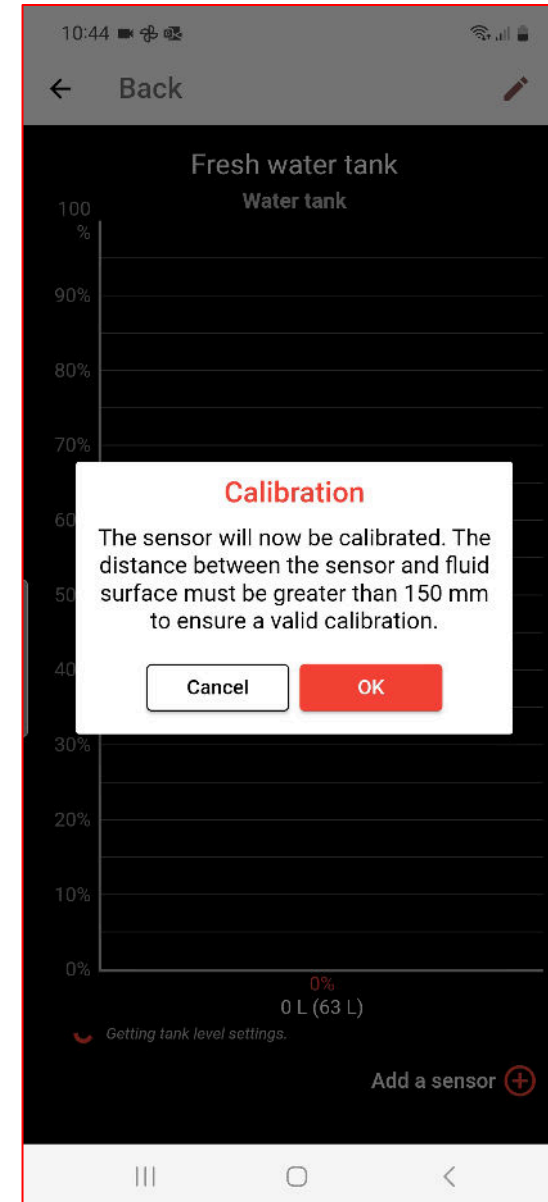
Output

☒ Active low (NPN) ☐ Active high (PNP)



### STEP 9:

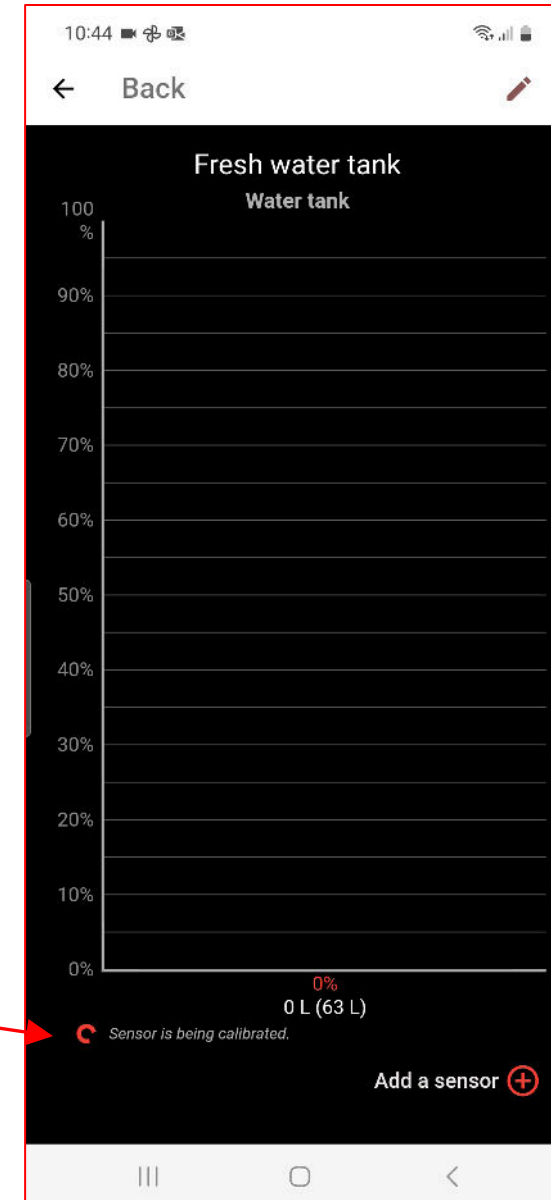
- The sensor will now be calibrated
- The purpose of the calibration is to suppress extraneous radar reflections in the vicinity of the sensor
- Press the OK button to start the calibration





### STEP 10:

- The sensor is now performing the calibration

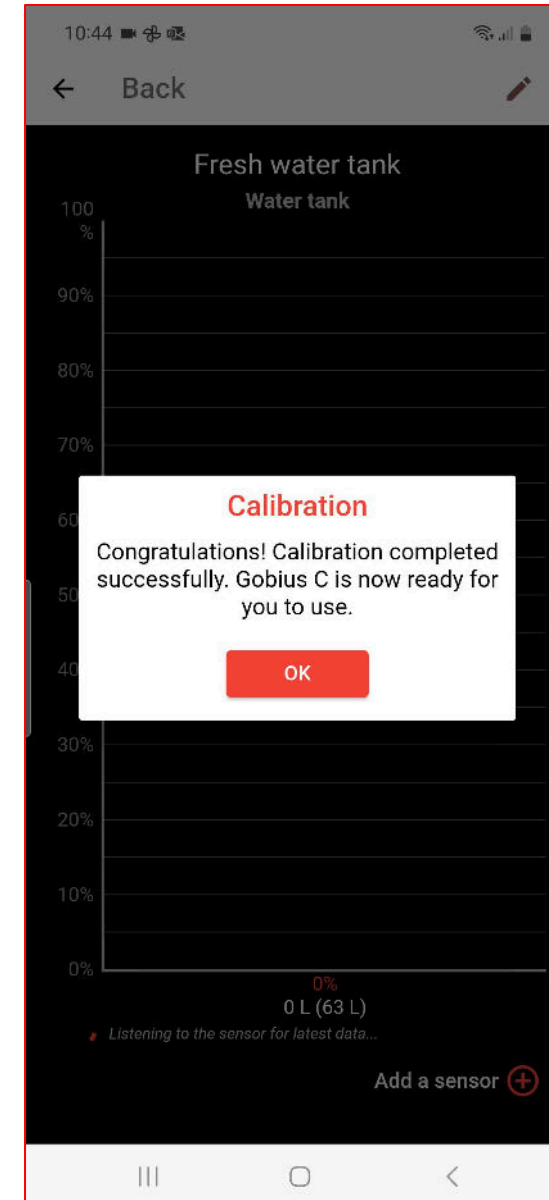




### STEP 11:

- Calibration is completed.
- Press the OK button

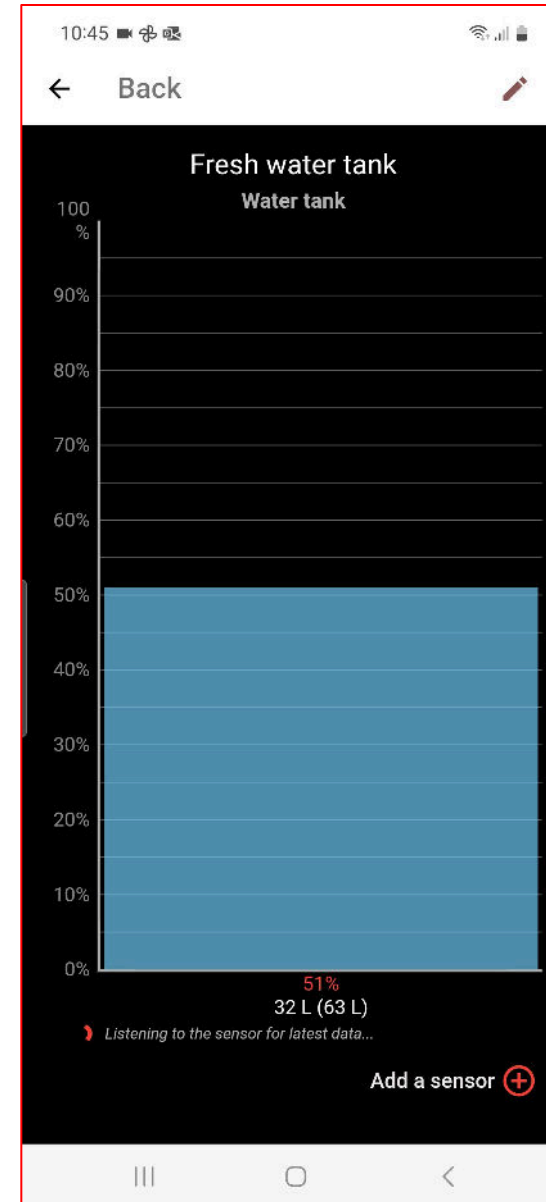
Step 9





STEP 12:

- The fluid level is shown
- ***Installation is complete***





### ***Fluid Type mapping:***

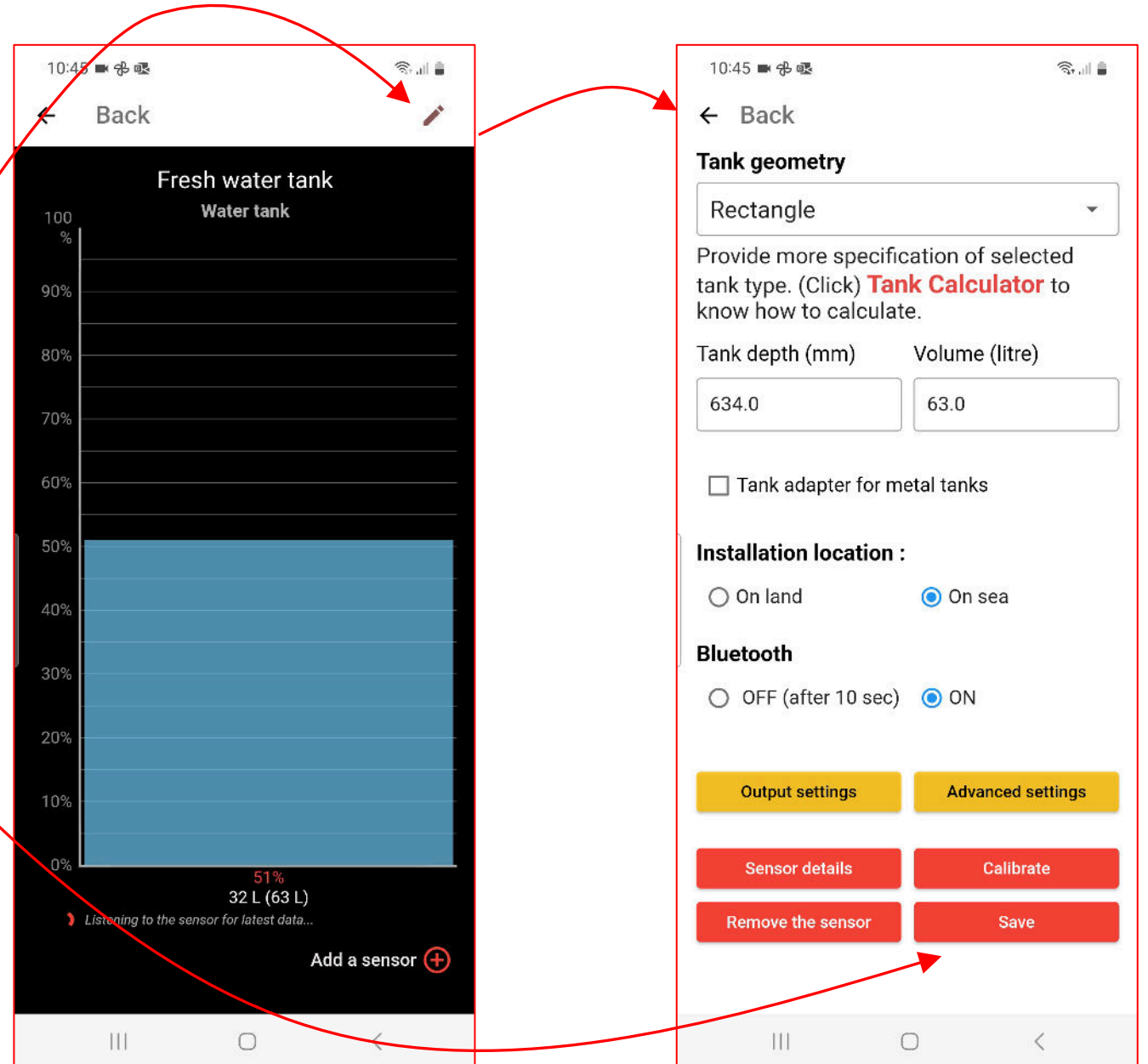
The table to the right shows the mapping from app Fluid Type to NMEA 2000 Fluid Type

***Note that it is important that the correct fluid type is used, otherwise may the tank level not be displayed on the chartplotter or similar device***

App Fluid Type	PGN 127505 fluid type number
"Water Tank"	1
"Fuel Tank"	0
"Gas/Petrol Tank"	6
"Grey Water Tank"	2
"Black Water Tank"	5
"Oil Tank"	4
"Other Fluid (Oil based)"	4
"Other Fluid (Water based)"	1

## How to change the tank settings:

- The settings for the tank can be changed anytime by clicking on the pen icon
- Do not forget to save the changes





## How to display detailed sensor information:

- Detailed sensor information can be shown by pressing the "Sensor details" button
- The most important parameters are:
  - Sensor state
  - Measuring (1=Yes, 0=No)
  - Sensor inclination
  - Distance from sensor to fluid surface

10:45

← Back

**Tank geometry**

Rectangle

Provide more specification of selected tank type. (Click) **Tank Calculator** to know how to calculate.

Tank depth (mm)      Volume (litre)

634.0      63.0

☐ Tank adapter for metal tanks

**Installation location :**

☐ On land      ☒ On sea

**Bluetooth**

☐ OFF (after 10 sec)      ☒ ON

Output settings      Advanced settings

Sensor details      Calibrate

Remove the sensor      Save

10:45

← Back

**Tank geometry**

Rectangle

**Sensor information**

Serial number: 74622  
Sensor software revision: 3.0.5  
App version: 3.4.3 build 20250403  
Sensor state: Active  
Status bits: 1000  
Current measurement range: 2  
Time since power on: 0: 49 :30  
Error code: 0  
Temperature: 23 °C  
Supply voltage (Volts): 12.271 V  
Sensor ID: 7C:E2:69:D1:78:6E  
Fill level: 51 %  
Measuring (1=Yes; 0=No): 1  
Sensor inclination: 2  
Distance from sensor to fluid surface (mm): 347  
NMEA 2000 State : 2

[Send support data to Gobius](#)

OK

Sensor details      Calibrate

Remove the sensor      Save