



**iJINUS**  
CLAIRE GROUP

Sensors

Dataloggers

Web services



## Overflow detector quick start guide





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### Sensor



### Fixation

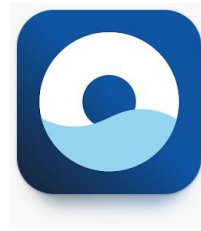


### Accessories for testing

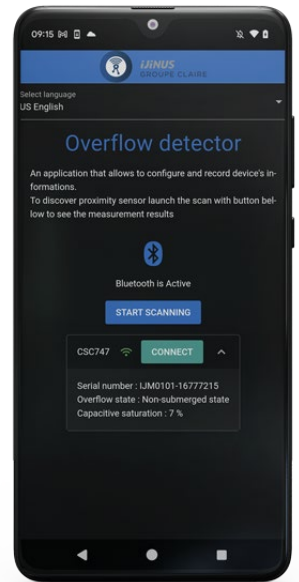


### Smartphone and Mobile App

Available on the Play store, soon on the App Store



App OverFlow



Here are a few essential points to read and bear in mind for overflow detectors :

The product is designed to activate if the overflow area is **fully immersed in water**.

**Consequently, the application of a wet cloth will only vary the saturation slightly but will not be sufficient to activate the overflow condition.**

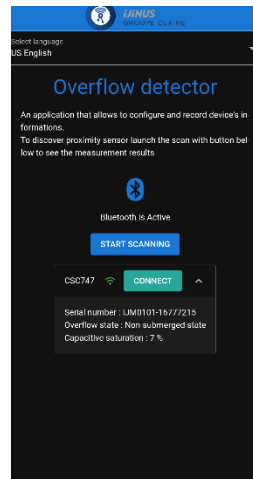
- 1) The overflow detector can be set to trigger the overflow state after a certain number of measurements exceeding a predefined threshold (time delay), so for a measurement every 4 seconds and a time delay of 4 the detector will trigger after  $4 \times 4 = 16$  seconds. By default, the time delay is set to 1 measurement.
- 2) During trials, tests or on-site verification of the detector's correct operation, it must be immersed and "surrounded" **by 3 cm of water around the walls**. This water must have a conductivity greater than **1000 $\mu$ S/cm**. The ideal solution is to use raw sewage water, and if not, slightly salted water (for information, a dose of approximately 1 g of salt in 1 litre of water should be enough).

**In addition, to avoid difficulties with the trigger threshold, we recommend displaying the capacitive saturation value (in %) via the mobile app.**





The V4 detector contains a battery that allows the product to measure and record data when not connected to a power supply, and to be paired via BLE with a smartphone running the dedicated App.



### Enable Bluetooth and localisation:

for connectivity between the phone and the detector to be usable, the distance between the 2 products in open field (i.e. without obstacles) must be less than 10 m and the detector must be submerged below a maximum level of 10 cm.

**If the localisation option is not enabled on the phone, the detectors will not be visible.**

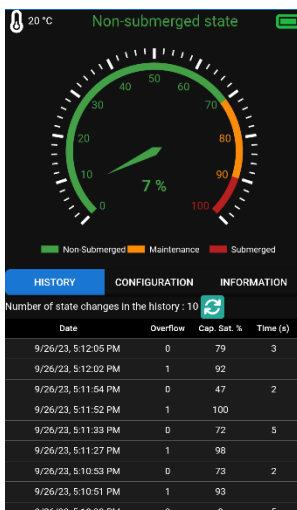
By clicking on the green CONNECT button, the App connects to the product and provides a "history" view.

Password: **ijinus29**

### **This default "History" view offers :**

A Status: Not immersed or Immersed AND the default output (see Configuration slide)

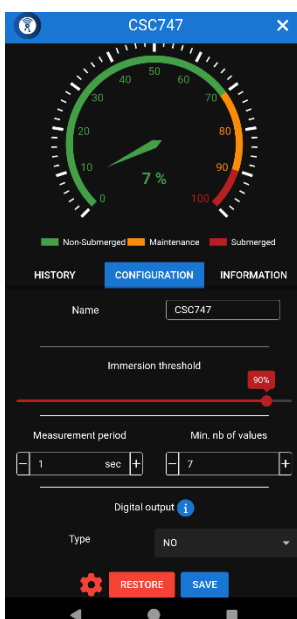
- A display showing the current saturation (here 7%) in three colours: green (not immersed), orange (maintenance), red (immersed). The capacitive threshold signifying immersion is about 90% in this example but can be modified.
- Current temperature (°C top left),
- Battery status (top right, in V for a new 3.6V battery)
- History of product status changes



Finally, you can email a csv file containing the historical data or download the file (if the Delete, Export and Download menu is not visible, scroll down the screen).

### **The configuration is :**

- Name or rename the detector,
- Check or modify the capacitive saturation threshold used to switch the product to the immersed state (here 90% for the example on the app and 80% on the graph below),
- Enter the measurement period (in s) and the number of values used to smooth the result,
- And finally define the digital output (NO, NC, ....), here NO.



**For more details, such as calibration information (concepts, procedure, ...), autonomy, etc., please refer to the Operating Instructions document.**



### Connecting the digital output (open drain)

3 types of digital output control are possible:

**NO** (Normally Open),

**NC** (Normally Closed)

and **pulse**.

The output control mode is configured using the "**Overflow**" mobile application available from the PlayStore. A password may be requested when connecting to the overflow detector. The password is: **ijinus29**

On a PLC, it is necessary to connect the pink wire (Open-Drain) and the brown wire (V- / Common).

Depending on the type of PLC, it may be necessary to polarise the input - refer to the PLC documentation.

It is recommended that the overflow detector be powered from a voltage source between 9 and 26 V.

Power is supplied via the green wire (V+) and the brown wire (V- / Common).

#### Connecteur :

V- : Negative power supply, Common

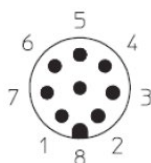
V+ : Positive power supply (+9 to +26V)

Modbus High : Modbus RTU RS485 A

Modbus Low : Modbus RTU RS485 B

OD: Open drain logic output (30V, 2A) - NO, NC or Pulse depending on configuration

**Unmentioned wires and pins are not connected in the product.**



#### Bare wires version

| Wire colour | Assignment  |
|-------------|-------------|
| Green       | V+          |
| Brown       | V- : Common |
| Pink        | OD          |
| Yellow      | Modbus high |
| Grey        | Modbus Low  |

#### M8 – Male connector version

| Wire N° | Assignment  |
|---------|-------------|
| 3       | V+          |
| 2       | V- / Common |
| 6       | OD          |
| 4       | Modbus high |
| 5       | Modbus Low  |