CALYPSO instruments
www.calypsoinstruments.com

HIGH-END
NMEA CONNECT PLUS
GATEWAY

Ultrasonic Wired Range to NMEA 2000

English version
01.05.2023

CE FC 0809

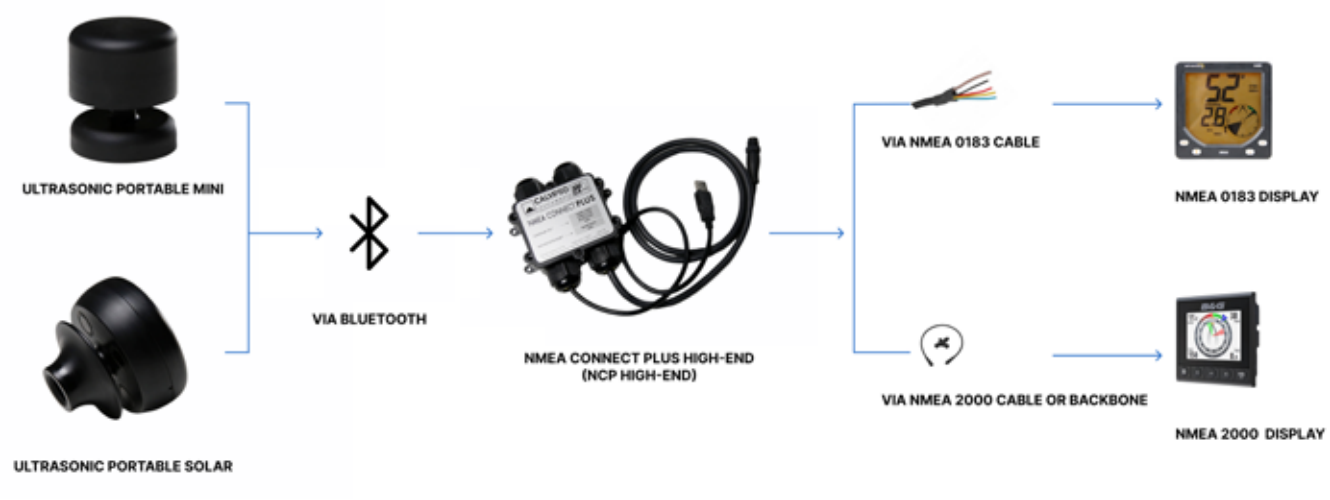
0. Index

1. Brief description of product and layout

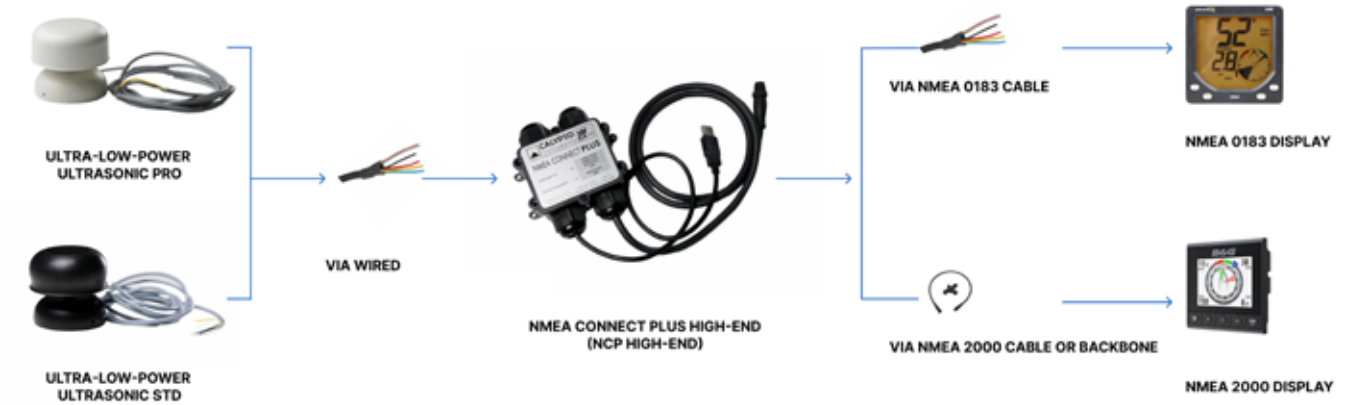
1.1 Brief description

The NMEA Connect Plus High-End (NCP- High End), can be connected to the Calypso Instruments Portable Range via **Bluetooth Low Energy (BLE)** and also to the Calypso Instruments Wired Range.
The NCP High-end can also be forward connected to both NMEA 0183 and NMEA 2000 chartplotters, displays or NMEA backbones .
The diagram below outline the connection pathway:

Calypso Instruments Portable Range.

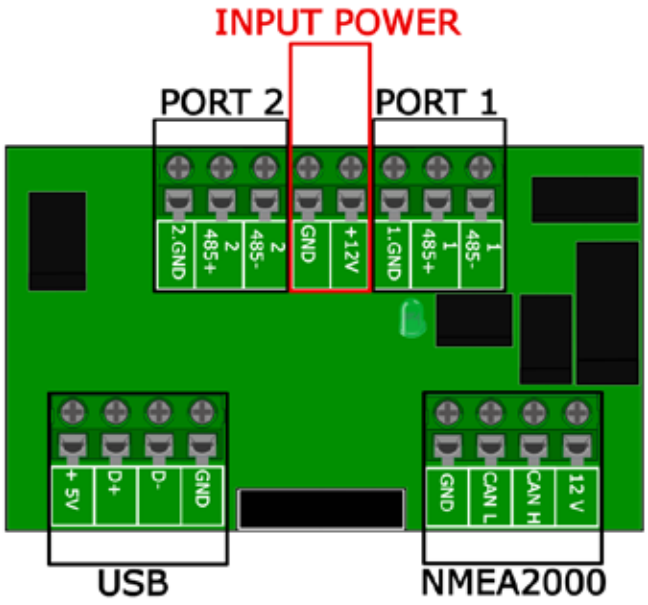


Calypso Instruments Wired Range.



1. Brief description of product and layout

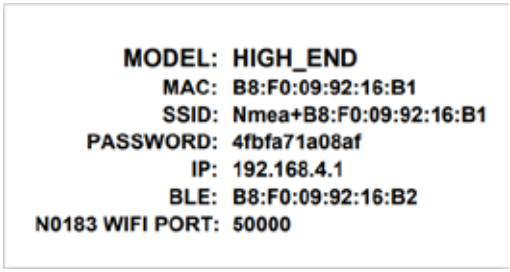
1.1 NCP High-End layout.



Main terminal pins:

- PORT 2 : 2. GND, 2 485+, 2 485-
- INPUT POWER : GND, + 12V
- PORT 1 : 1.GND ,1 485+,1 485-
- USB : +5V, D+, D-, GND
- NMEA 2000 : GND, CAN L, CAN H, 12V

The NCP High-End is labeled with:



- MAC: Unique identifier number
- SSID : **NCP wifi name**
- PASSWORD : Password for Wifi connection
- IP : IP Address
- DB ADDRESS : Bluetooth direction address
- 0183 WIFI SERVER PORT:**0183 Wifi server port as per default**
- MOD: NMEA Connect Plus High-End model.

3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

NCP High-End configuration.

First of all, you need to configure your portable wind meter to the NCP High-End.
This configuration will help you guarantee the connection between the portable wind meter and the NCP will run automatically.
You can configure your NCP to your portable wind meter as follows:

- Via Wifi
- Via USB

Configuration via Wifi

- Connect the NCP to a power supply.
- From your computer, click on wi-fi and select the NMEA wifi network (it will always be named as NMEA+ a number and you can find it on your NCP-High-end label).
- Type the wifi address that you will find on the NCP High-end label.
- Click on connect.
- Open your browser and type the 192.168.4.1. ip address that you will find on the NCP High-End label.
- Press ENTER.

This is what you can expect to find:

We will have a quick tour around the information page, status page and configuration page within the next pages.

3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Configuration via wifi (continuation)

Information Page

This page shows information about your NCP High-end such as the NCP model, its MAC code, NCP wifi address , BD address (the MAC id number that will be shown when connecting your device via Bluetooth) and its current firmware version.

Status Page

This page shows all of the current active connections for your NCP High-End.
TRUE shows the connection is working.
Receiving shows whether the wind meter is sending and the NCP High-end is receiving data.
Ultrasonic connected shows whether the wind meter is connected or not via Bluetooth.
No. Clients connected shows how many devices are currently connected to the NCP High-end.

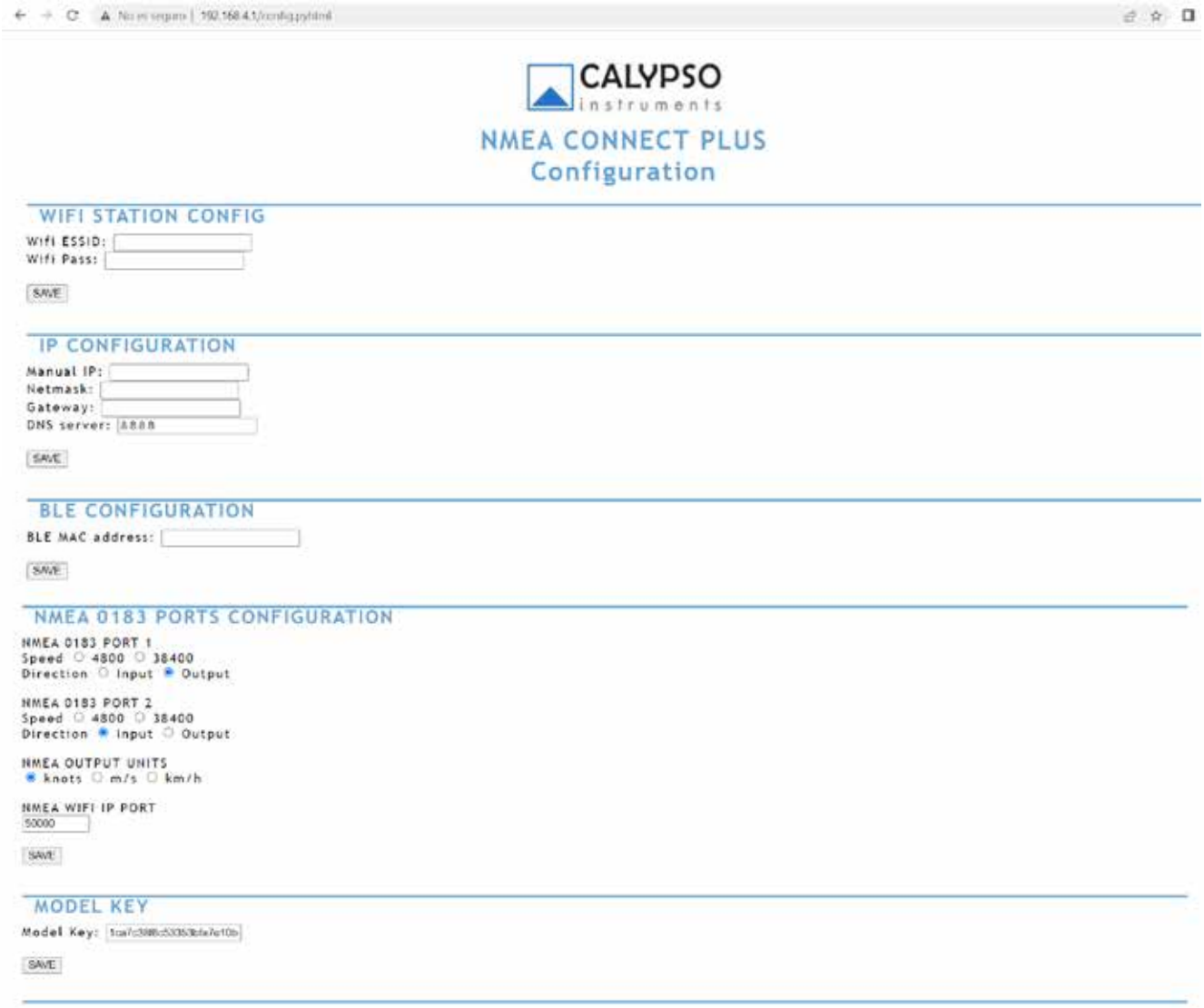
3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Configuration via wifi (continuation)

Configuration page

The interface will allow you to configure the NCP High-end to your Ultrasonic wind meter.



Follow the next steps to make the configuration via WIFI:

- Click on the configuration page.

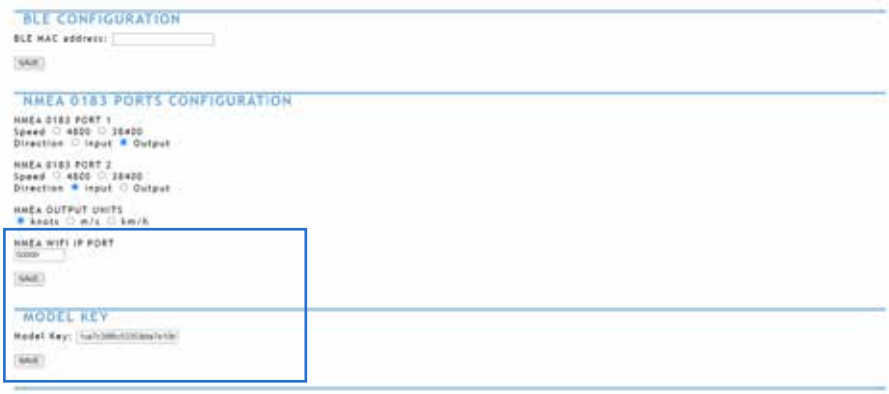
3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Configuration via wifi (continuation)

- Configure either PORT 1 or PORT 2 as input. Please make sure to configure your wired wind meter speed (the wired range comes at 38400 by default). You can also choose your NMEA units (how your NCP High-End will send data) between knots, m/s, or Km/h.
- Save changes.

Please do not update the NMEA wifi IP port and the model key fields as they come automatically configured.



If you experience any issue when saving data, apply the USB configuration option instead and follow the instructions detailed in the USB configuration section below.

Configuration via USB

Please note this configuration is only available for Windows users.

- Connect the NCP High-End USB port to your computer.
- Go to https://calypsoinstruments.com/technical-information and click on the Get Configurator button from the NMEA Connect Plus section.
- Download and run the configurator.

3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Configuration via USB (continuation)

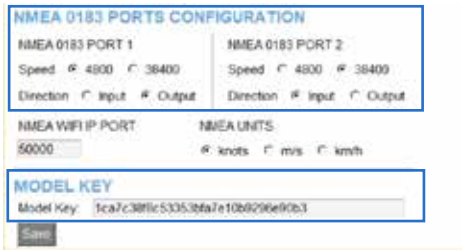
This is the configurator interface :

To configure the Portable wind meter to the NCP High-End fill in the following fields:

- In port COM select, COM+ the number of COM that belongs to your NCP High-End.

If you don't see any port COM number or you don't know what is your port COM number, see Appendix I.

Once you select your comPORT, the interface will update some information, such as the NMEA 0183 ports configuration and the Model key sections.

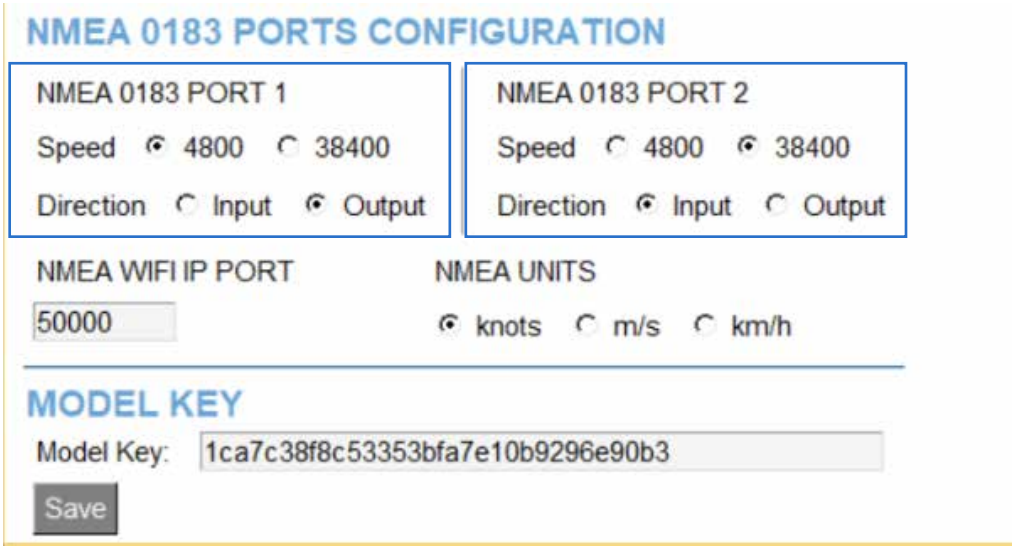


- Configure either PORT 1 or PORT 2 as input. Please make sure to configure your wired wind meter speed (the wired range comes at 38400 by default). You can also choose your NMEA units (how your NCP High-End will send data) between knots, m/s, or Km/h.
- Save changes.

3. Connection from the Calypso Instruments Wired Range.

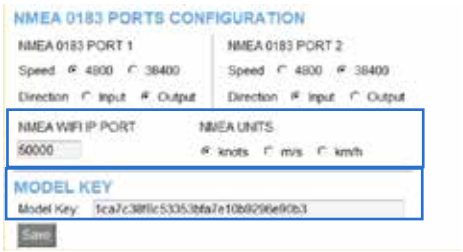
3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Configuration via USB (continuation)



- A feedback message will be shown to confirm changes have been saved.

Please do not update the NMEA wifi IP port and the model key fields as they come automatically configured.



NCP Connection

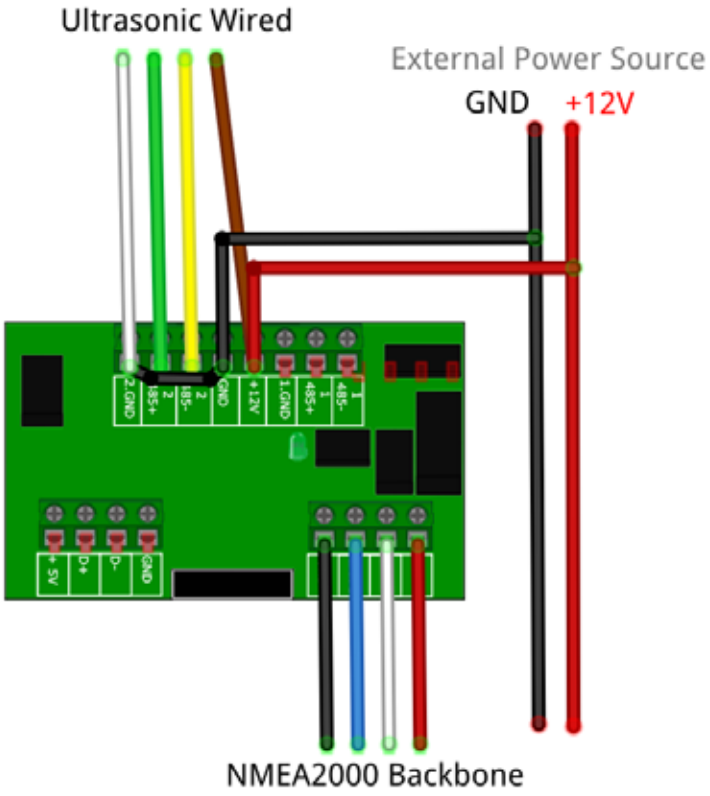
For this connection, PORT 2 will be used as input.

3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Connection (continuation)

Connection using PORT 2 as input.



Set up the cable connections as follows:

- White to GND PORT 2.
- Green to 485+
- Yellow to 485-
- Brown to +12v (power)

An electrical bridge will need to be made between the following:

- GND Power to GND PORT 2.

Once you have made the connection:

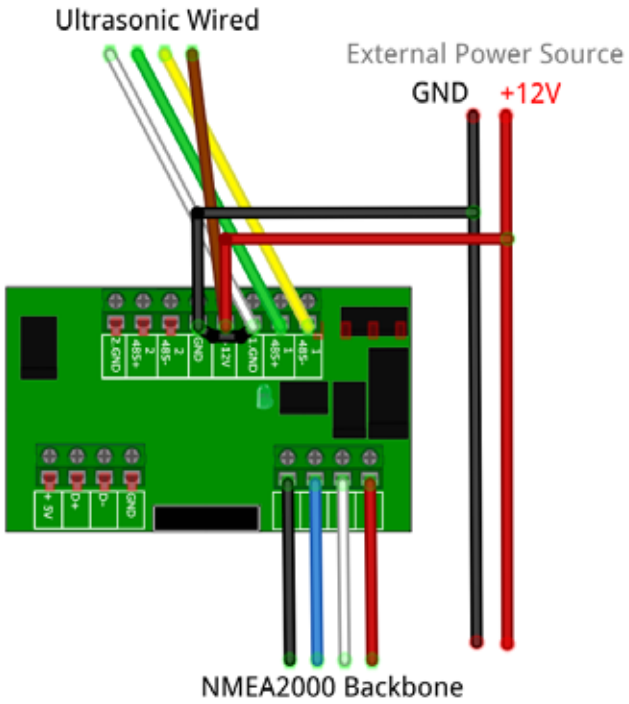
- Connect the N2K cable from the NCP High-End to the NMEA 2000 display or backbone.
- Start receiving data.

3. Connection from the Calypso Instruments Wired Range.

3.1 How to connect the Calypso Instruments Wired Range via wired to the NCP High-End via cable to an NMEA 2000 display or NMEA 2000 backbone.

Connection (continuation)

Connection using PORT 1 as input.



Set up the cable connections as follows:

- White to GND PORT 1
- Green to 485+
- Yellow to 485-
- Brown to +12v (power)

An electrical bridge will need to be made between the following:

- GND Power to GND PORT1.

Once you have made the connection:

- Connect the N2K cable from the NCP High-End to the NMEA 2000 display or backbone.
- Start receiving data.

I don't see any port COM number or I don't know what my port COM number is.

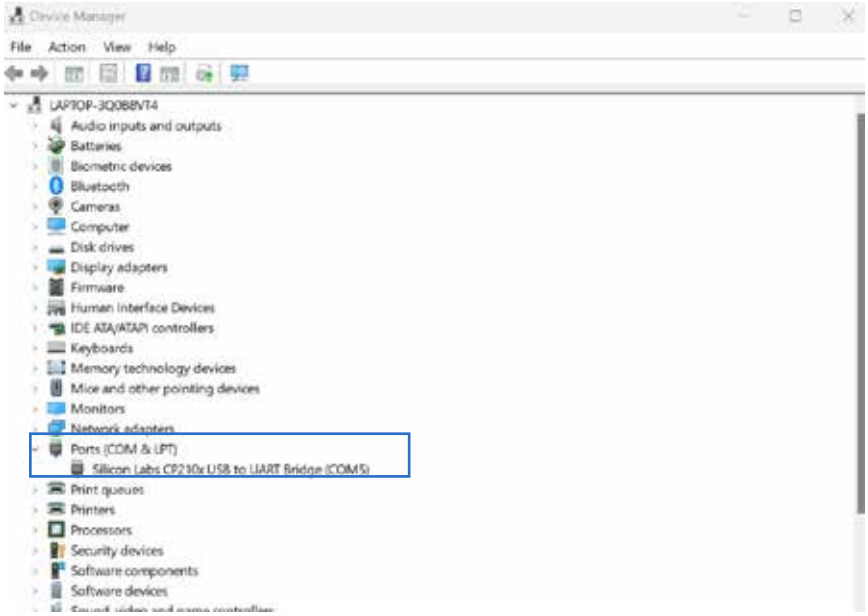
I don't see any port COM number.

If you don't see any port COM number, it means that you need to download some port COM drivers first.
You can download them at https://calypsoinstruments.com/technical-information
NMEA Connect Plus section.

- Download the drivers for your software. Choose between Windows, Mac, Linux or Wind.
- The drivers will be downloaded in a Zip. Unzip the information and get access to the driver.
- Open the file and go to the installing section.
  In this example, we are downloading the CP210x Universal Windows Driver.
- Follow the installing section instructions for downloading the drivers.

I don't know what my port COM number is.

- On your computer, go to ***Device manager*** .
- In PORTS (COM & LPT) you should see something similar to this:
  "***Silicom labs CP210x USB to UART converter bridge (COM5)***".
  In this case, our comPORT is number 5.



CALYPSO instruments

NMEA CONNECT PLUS HIGH-END

User manual English version 1.0

01.05.2023