User Manual

ACC2

Release 1.01

1 – Introduction

ACC2 (**Analog CAN Converter**) is an expansion module that samples up to 4 analog signals, converts them into digital values depending upon the chosen unit of measure and transmits them via CAN to an AiM Master device, at a maximum frequency of 200 Hz.
The analog signals that ACC2 manages are:

- 0-5V
- thermoresistances
- 0-12V
- K Type thermocouples

2 – Wirings

ACC2 can manage many different sensors, from Thermocouples to sensors whose output is 0-12V. Please, note that the thermocouples require dedicated compensated cables, so different kits and different harnesses and cables are available. Here down some examples of the available harnesses.
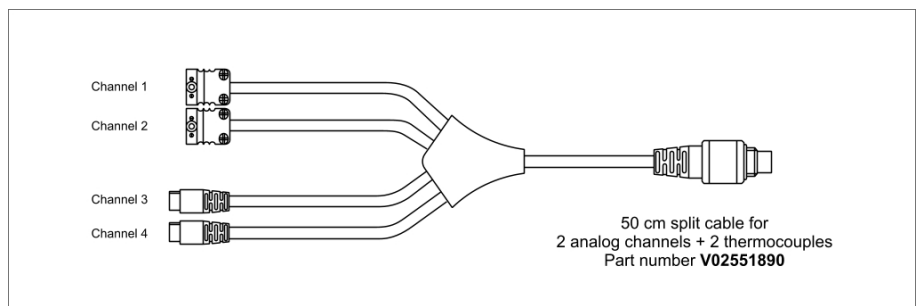
Harness intended to be used with AiM sensors (Thermo resistances, 0-5V, 0-12V).
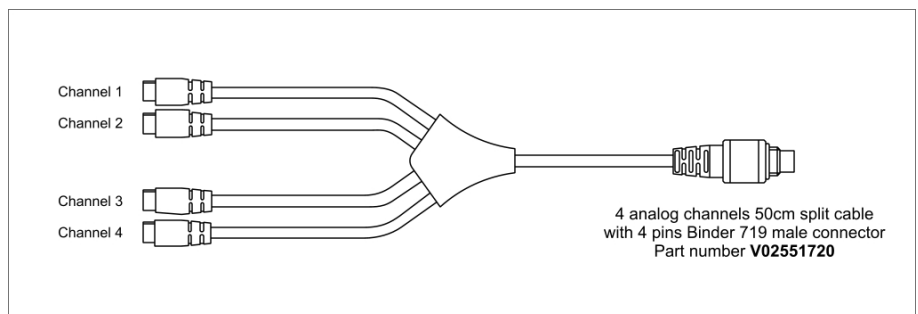
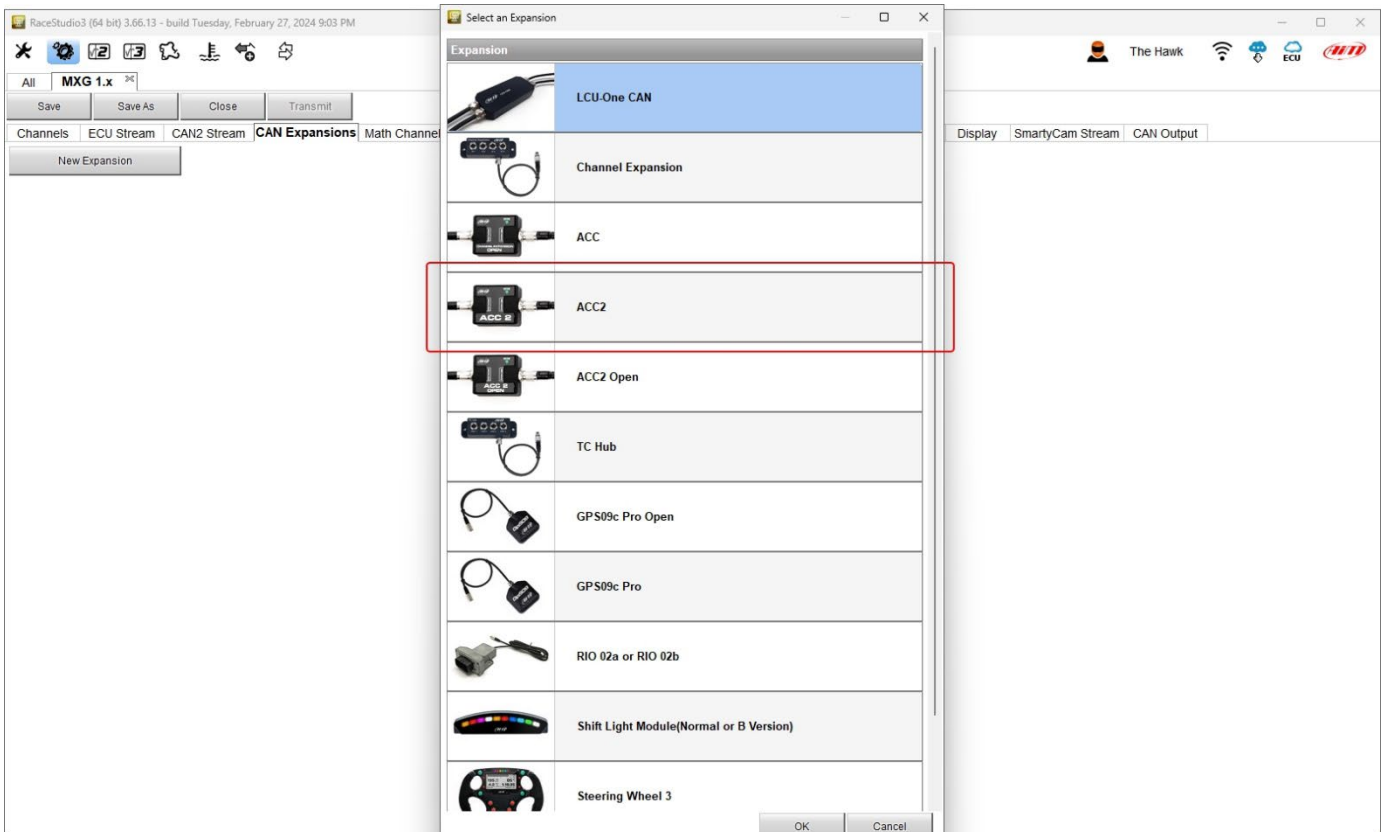Harness free wires for Thermoresistences, 0-5V, 0-12V.
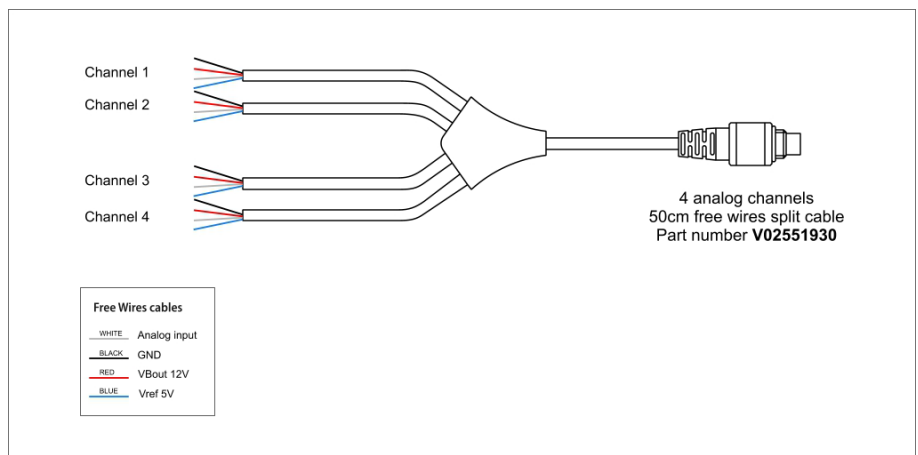
Harness for 2 thermocouples and two AiM sensors.

3 – Configuration

To configure ACC2 follow these steps:
- run RaceStudio 3 software and select the Master device you need to configure (MXG in the example)
- enter "CAN Expansions" tab and select "ACC2" expansion as shown here below.
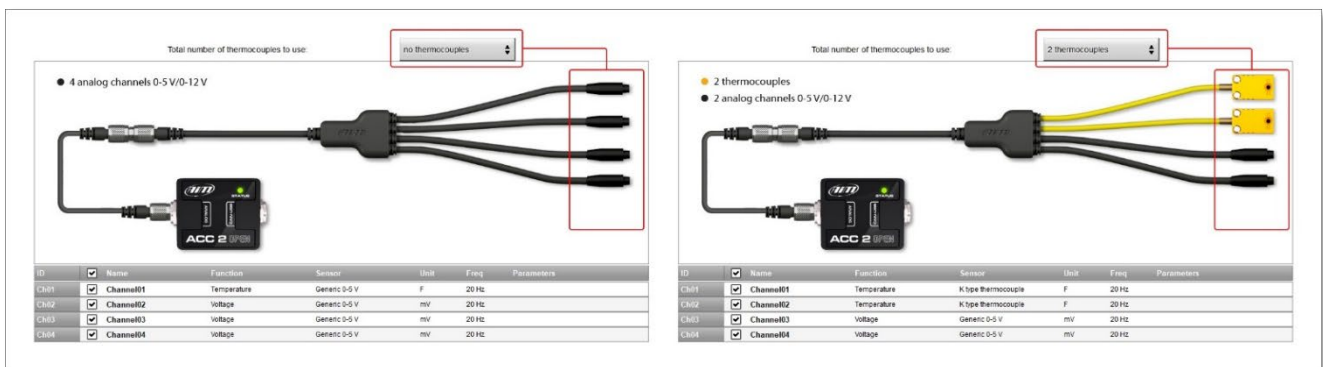
The software enters ACC2 configuration Tab.
Keeping ACC2 connected you can:
* name it
* get its serial number pressing the corresponding button (**1**)
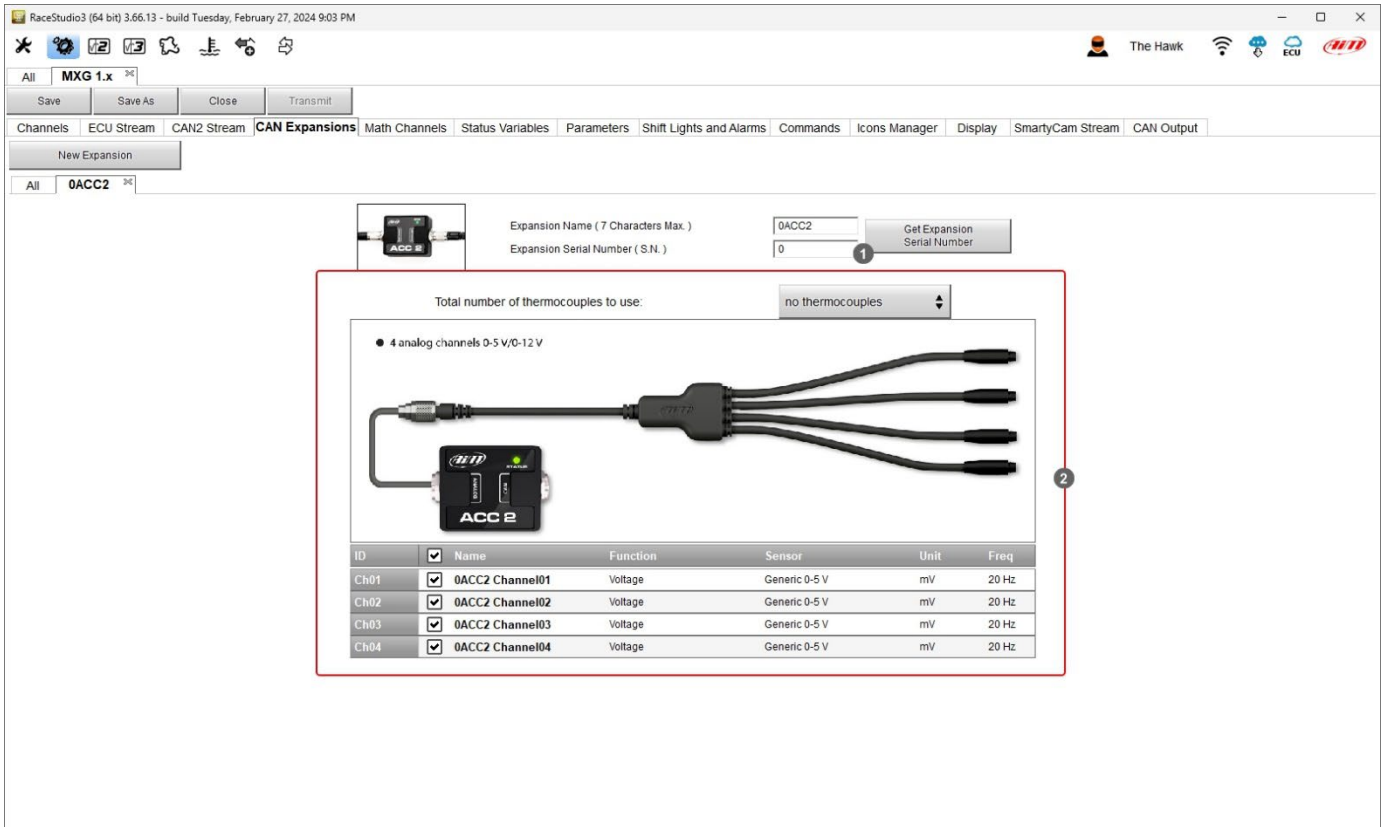
First of all, **you need to set the number of thermocouples you will connect** (**2**); of course, you need the proper harness as shown below.


ACC2 supports up to four K type thermocouples. Once the number of thermocouple(s) to be connected is fixed the software warns you and the corresponding channel(s) switches to "Temperature".

To set the temperature channel:

- select the channel
- name it ("Water Temp" in the example below)
- select the function in the menu (Water Temperature)
- set the sampling frequency
- set the unit of measure (°C or °F)
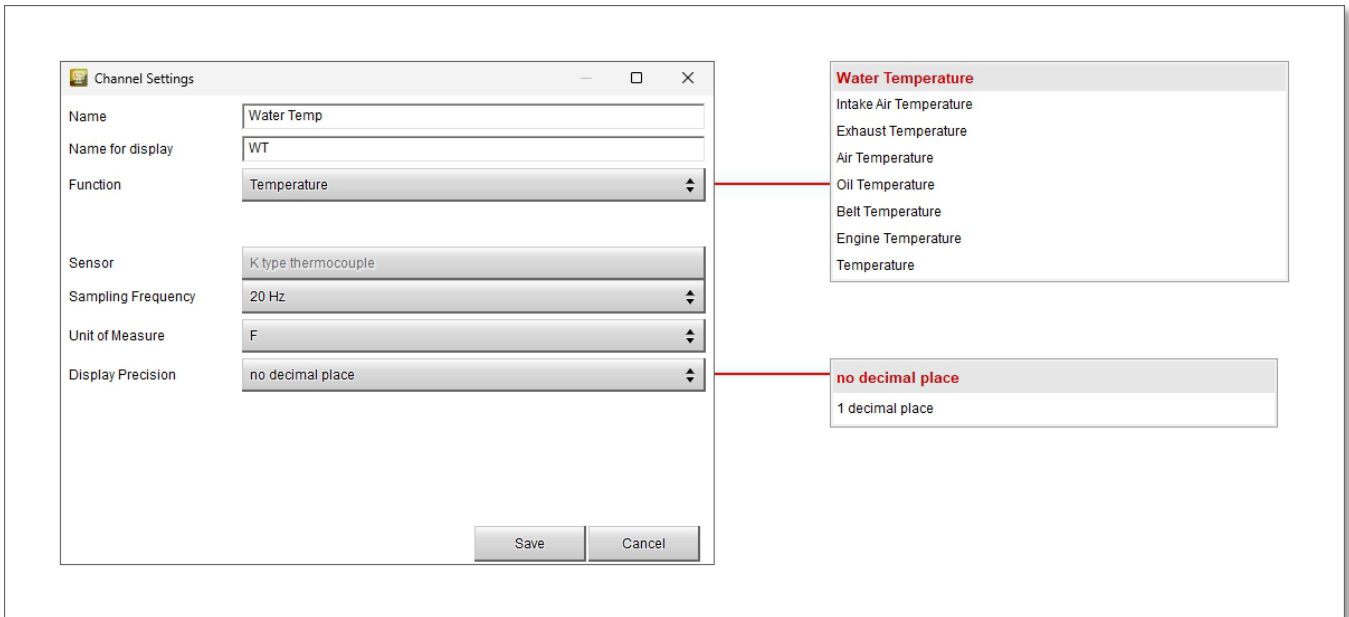
In the similar way you have to configure the remaining channels: click the channel to set and a setting panel is prompted; a lot of possible function can be set according to the kind of sensor you connect to ACC2.
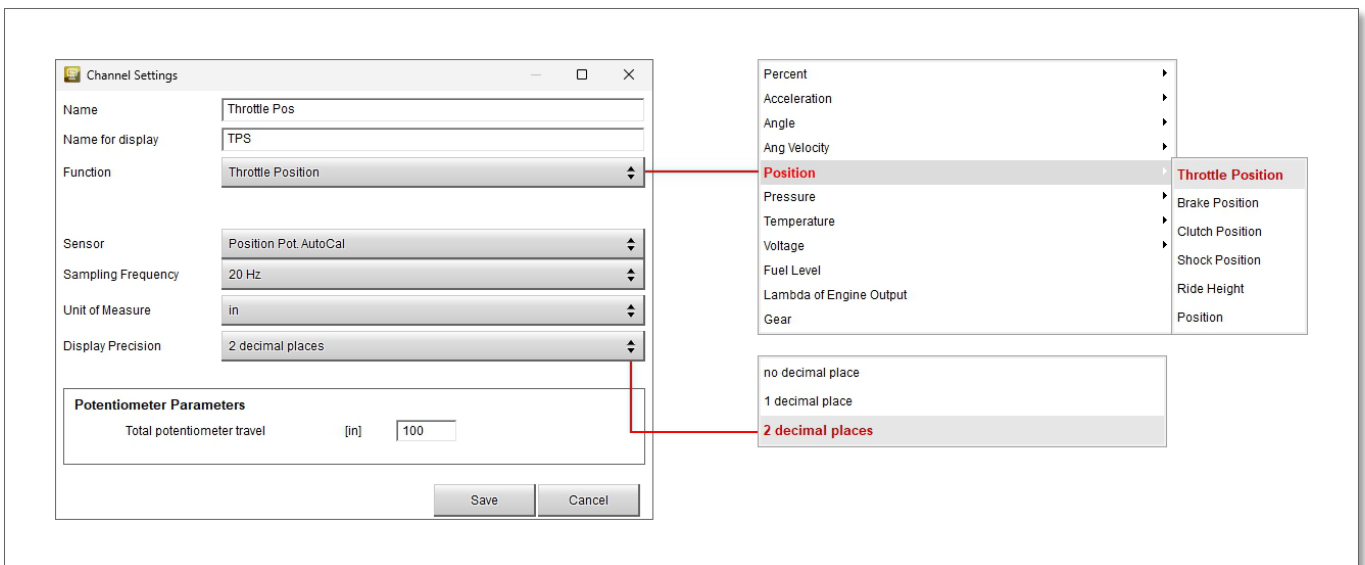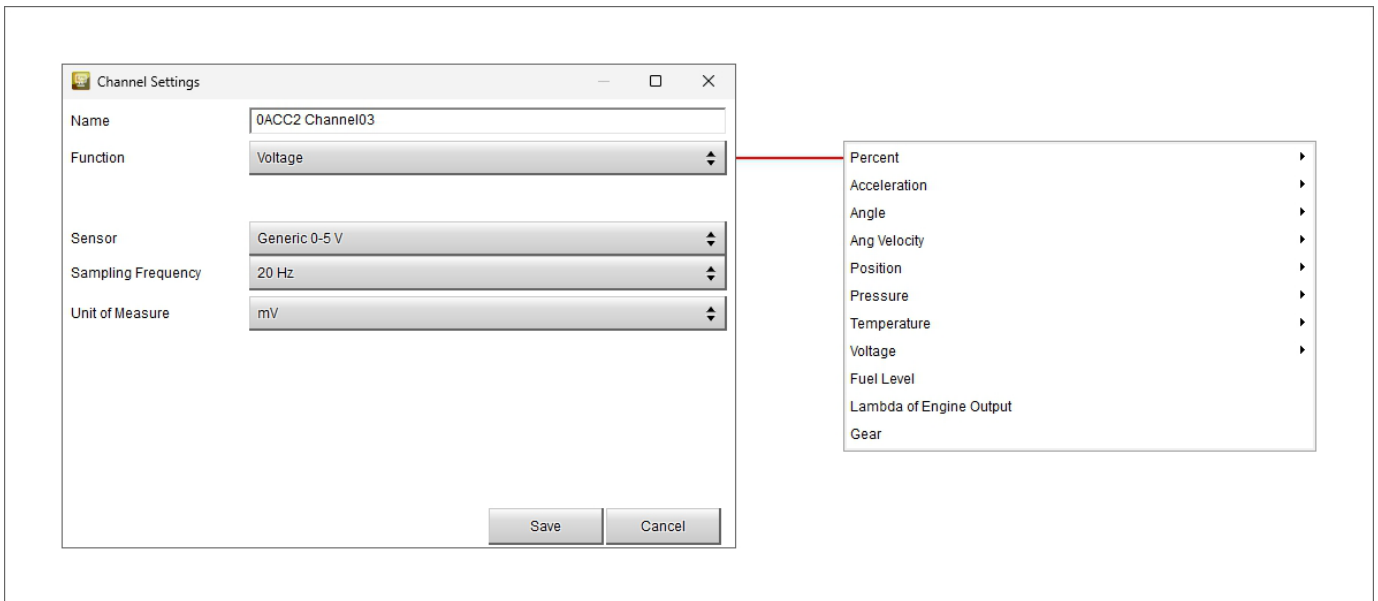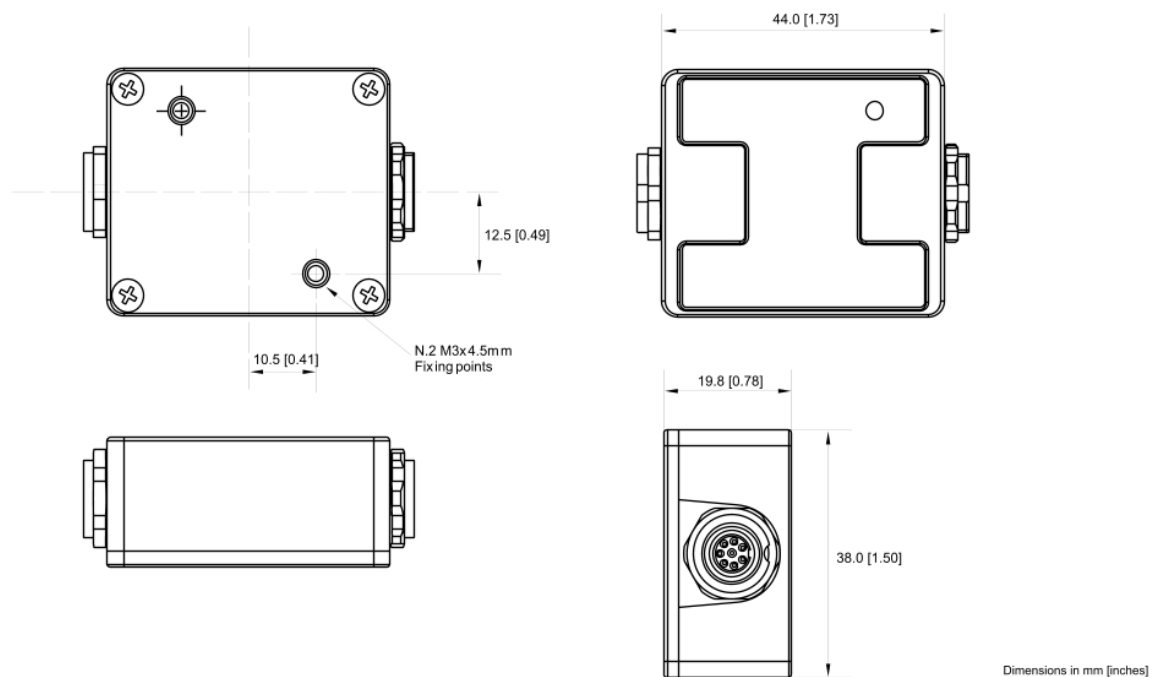
When the configuration is finished save and transmit it to the logger (MXG 1 in the example) using the software top left keyboard.

4 – Dimensions and technical characteristics

The image below shows ACC2 dimensions in mm [inches]

Dimensions in mm [inches]

Technical characteristics:

- Analog Channels: 4 fully configurable, 200 Hz each: thermocouple, thermos resitors, 0-5V, 0-12V
- External Power: 9-12V (supports sensors TC-TR 0-5V)
                           12-15V (supports sensors that needs 12V power)
- Connection: CAN
- Connectors: 2 Binder 712 female connectors
- Material: PA6 30% glass
- Dimensions: 44x38x19.8mm
- Weight: 50g
- Waterproof: IP65