+AiM Infotech

# Configuration with RaceStudio 3 software of AiM combined pressure + temperature sensor

Release 1.00

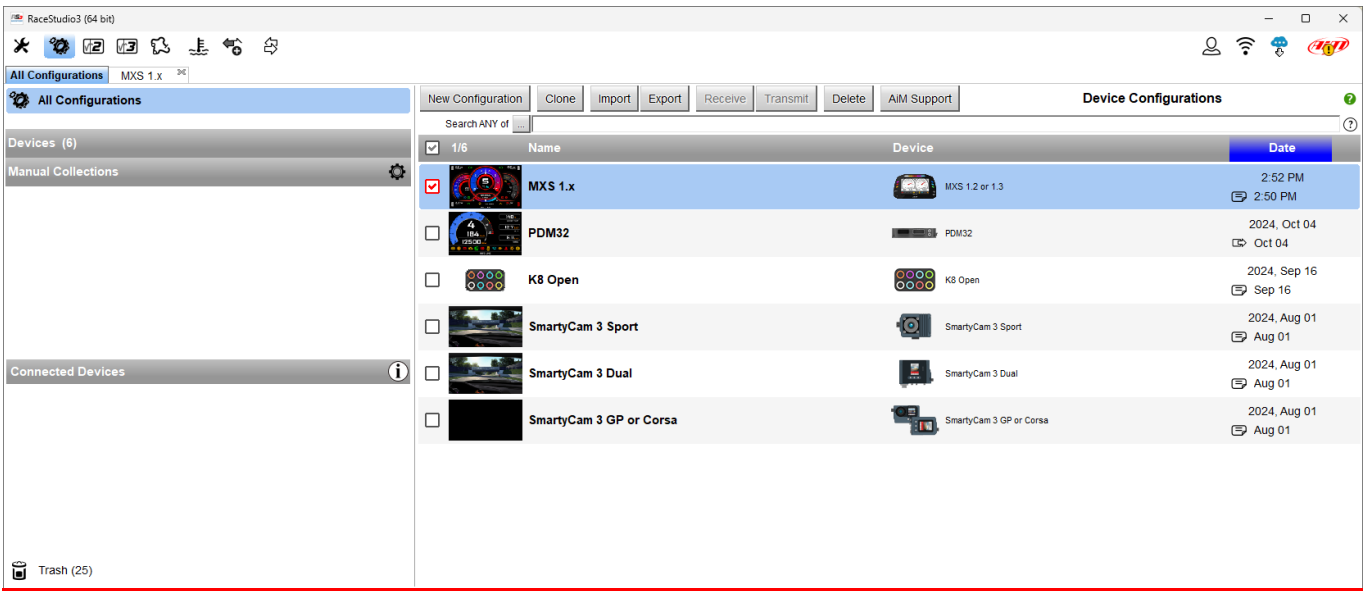
# 1 Introduction

Once the sensor is physically connected to one of the device channels it has to be loaded in the related configuration using AiM **RaceStudio 3** configuration software.

**Please remember** that each combined sensor occupies two analog channels so keep in consideration the max number of allowed analogue channels of your device.

# 2 Setup with RaceStudio 3

To load the sensor in the configuration, keeping the device switched on and connected to the PC, run the software and select the configuration where to load the sensor on (MXS 1.x in the example).




**Please note**: some AiM devices manage the channels only as analog, others also as digital while others need an additional optional AiM CAN Expansion module (Channel expansion and ACC2).

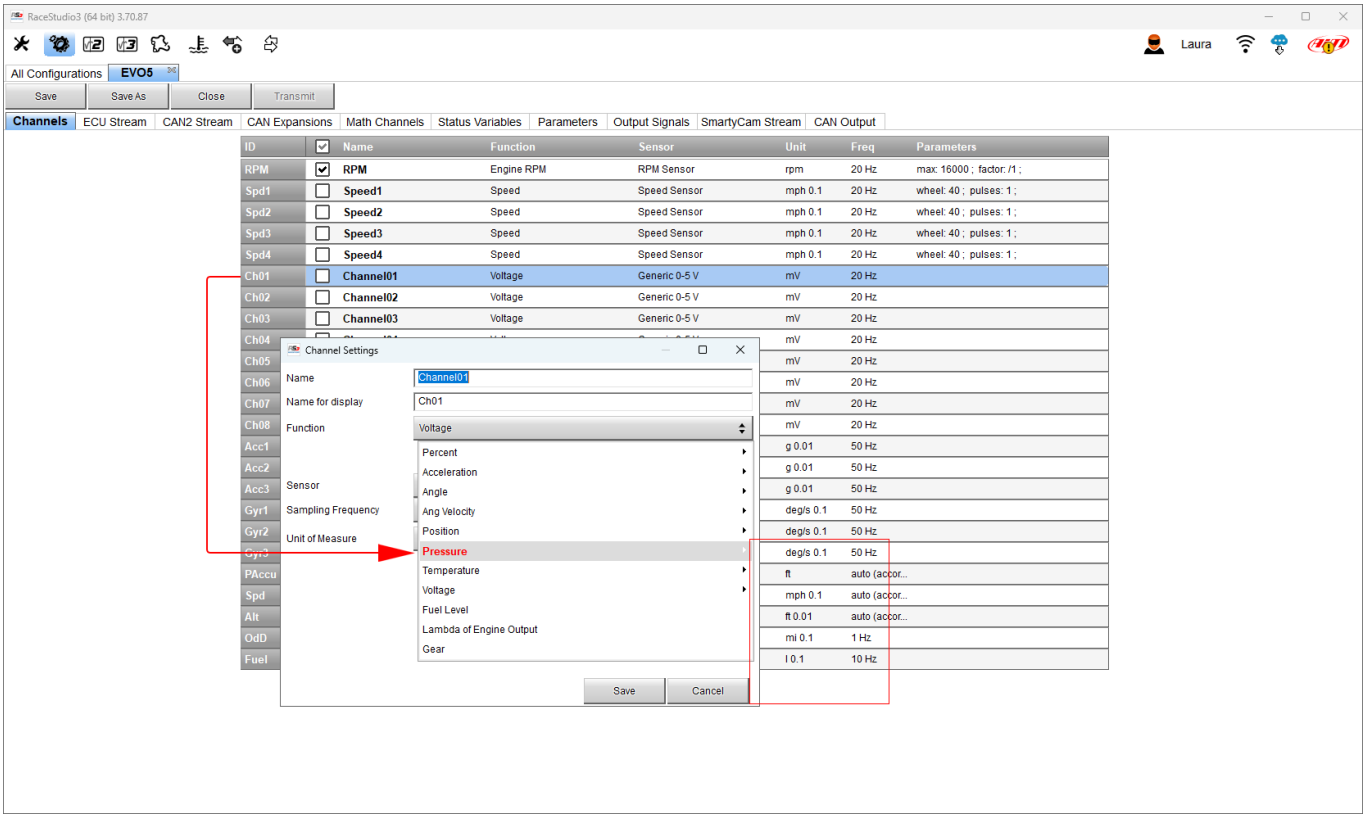
# 2.1
# Setting the pressure sensor with RaceStudio 3 software

AiM devices that manage the channels **only as analog** are:

- EVO5
- EVO4S
- MXL2
- MX Strada systems
- MXm

To configure the sensor:

- enter “Channels” tab and click the channel where to load the sensor on
- “Channel settings” panel is prompted: select the function "Pressure" and the pressure type
- by default the software sets a sensor: click it and select the sensor you connected to AiM device; in paragraph 2.3 a table shows the codes that match each sensor

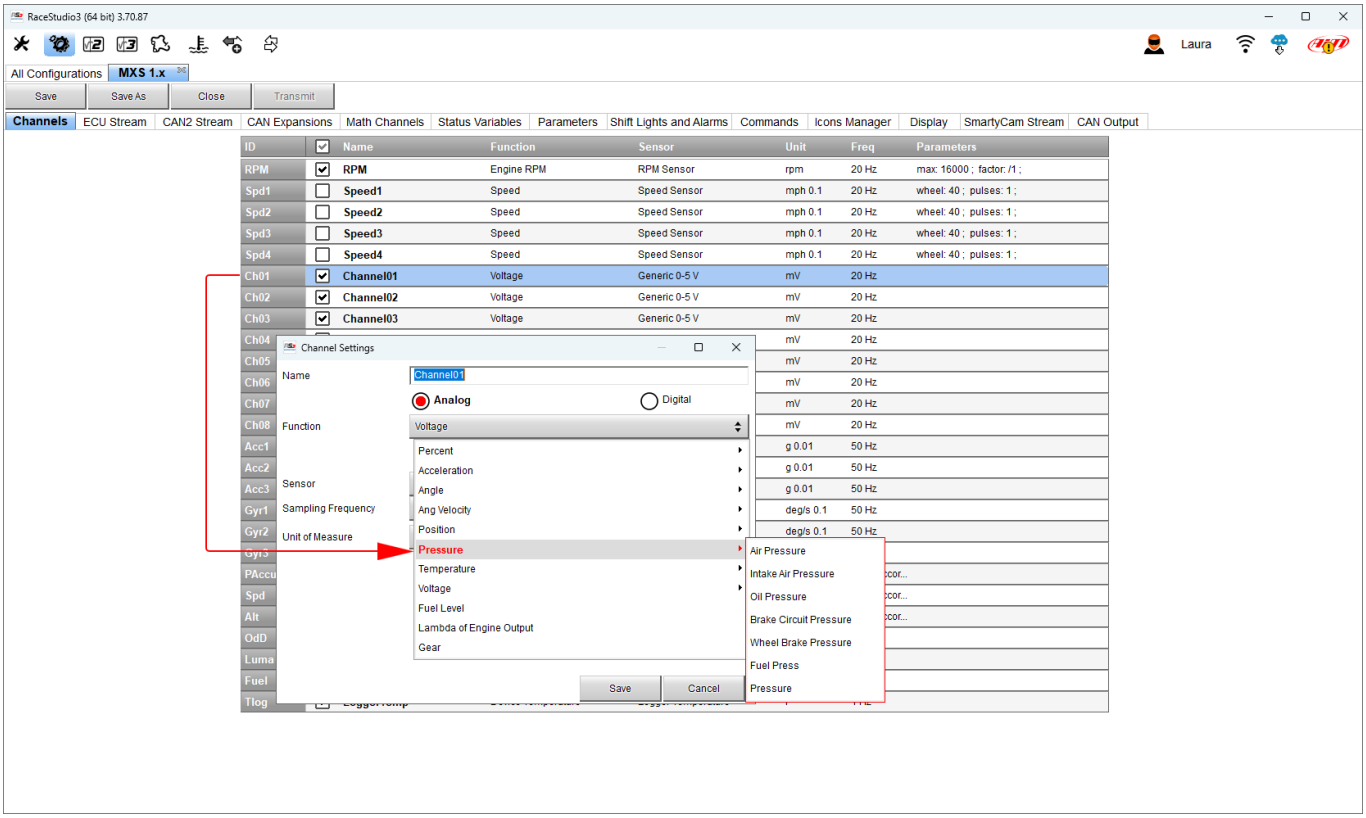


AiM devices that manage the channel both **as analog and as digital** are:

- MX 1.2/1.3 systems (MXP included)
- MX 1.2/1.3 Strada systems (MXP Strada included)
- MX systems
- MXsl

To configure the sensor:

- enter “Channels” tab and click the channel where to load the sensor on
- “Channel settings” panel is prompted: **select “Analog” management**
- select the configuration function "Pressure” and the pressure type
- by default the software sets a sensor: click it and select the sensor you connected to AiM device; in paragraph 2.3 a table shows the codes that match each sensor

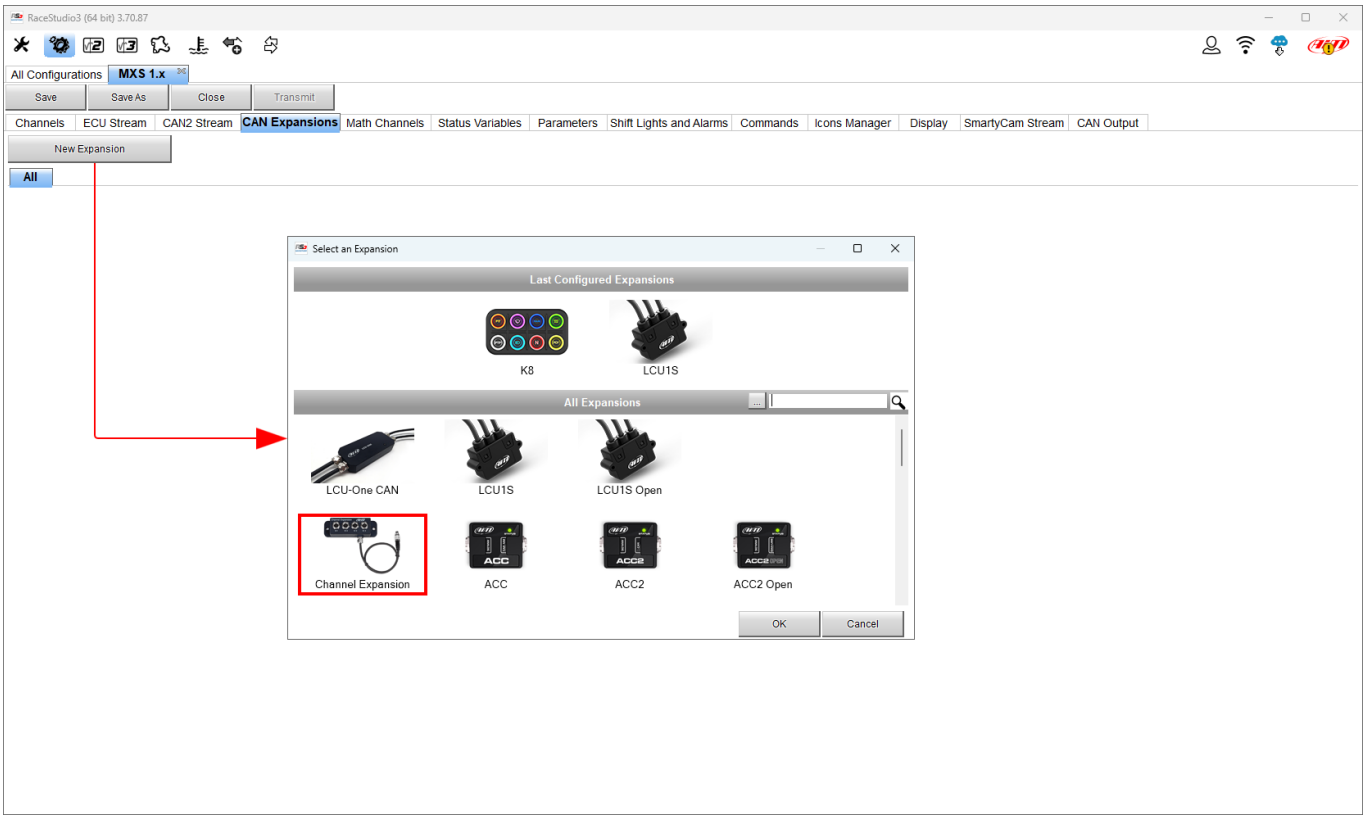


AiM devices that manage the channels **only through an additional optional AiM CAN Expansion (Channel expansion and ACC2)** are:

- SW4
- Solo 2 DL
- MXK10 Gen4
- MXK10 Gen5
- MX2E

To configure the sensor:

- enter “CAN Expansions” tab and click “New Expansion” button
- select the expansion you want to connect your device to and press “OK”
- once the expansion loaded the related setting tab is prompted: click the channel where to load the sensor on and manage it as explained in the previous paragraph according to the device it is connected to



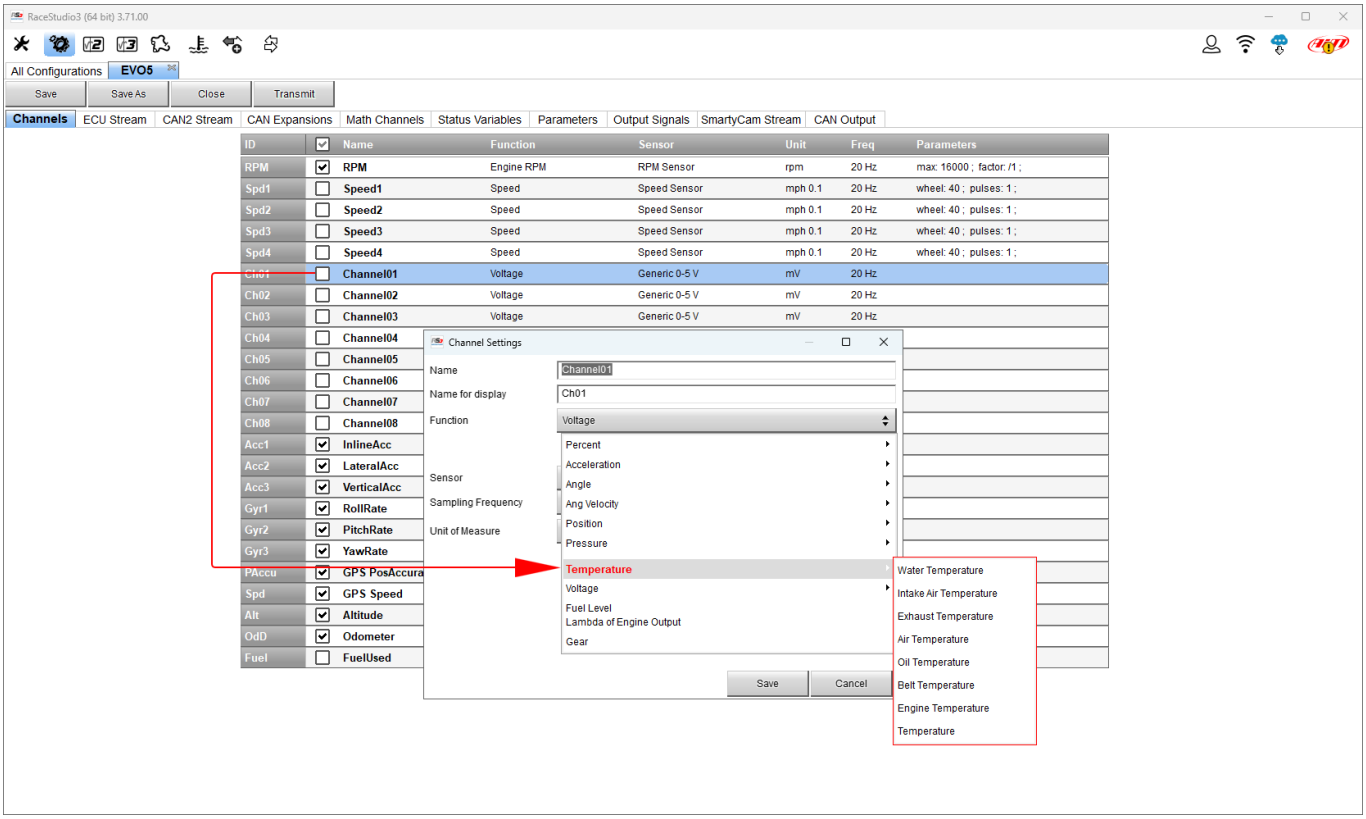
# 2.2
# Setting the temperature sensor with RaceStudio 3 software

As explained before, this sensor supports PT100 thermo-resistor to measure the temperature. To load it in the device configuration, once entered “Channels” tab select the channel where to load the sensor on.
As said before AiM devices can manage the channels only as analog or also as digital. Devices that manage the channels **only as analog** are:

- EVO5
- EVO4S
- MXL2
- MX Strada systems
- MXm

To configure the sensor:

- enter “Channels” tab and click the channel where to load the sensor on
- “Channel settings” panel is prompted: select the function "Temperature" and the temperature type
- by default the software sets a “PT-100” sensor
- click “Save” and then “Transmit” to transmit the configuration to the logger

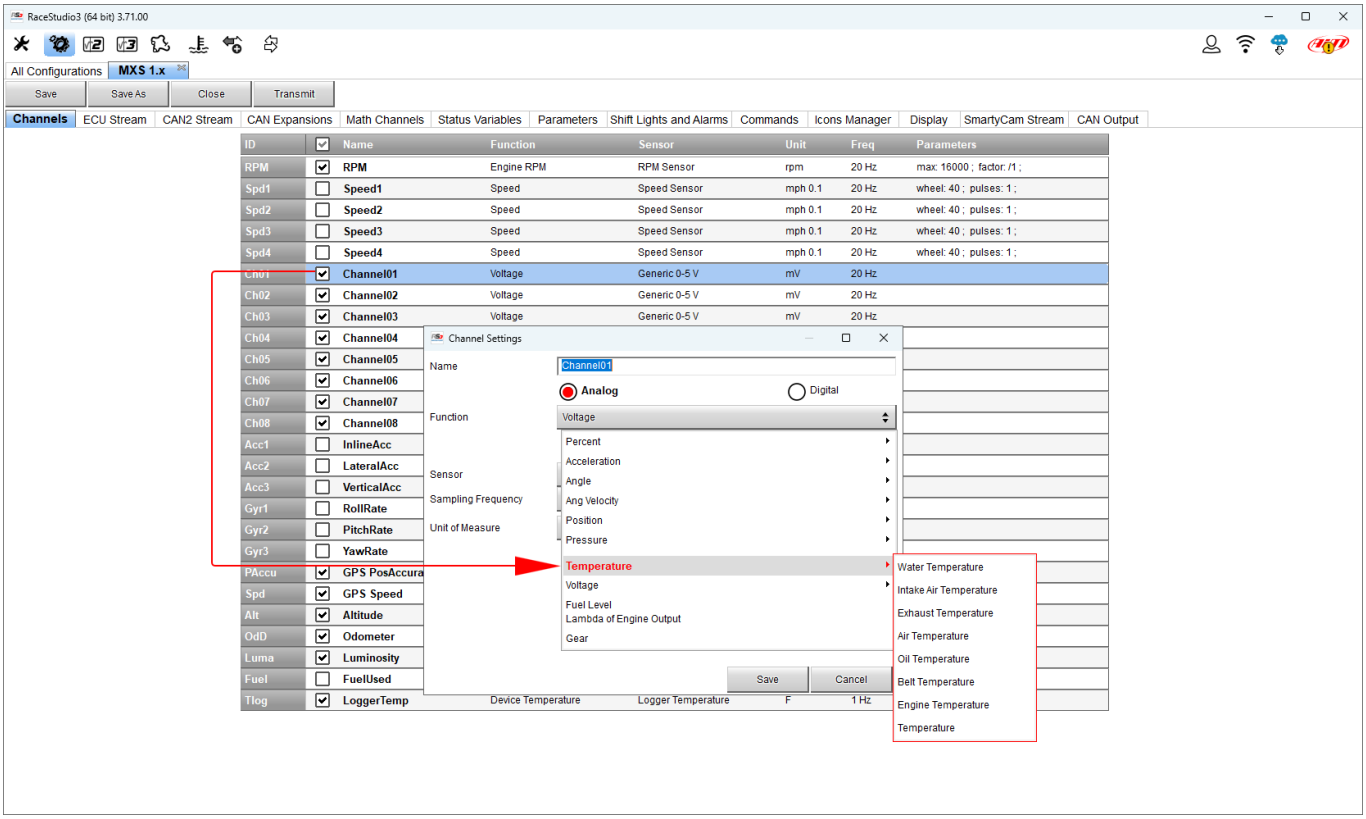


AiM devices that manage the channel both **as analog and as digital** are:

- MX 1.2/1.3 systems (MXP included)
- MX 1.2/1.3 Strada systems (MXP Strada included)
- MX systems
- MXsl

To configure the sensor:

- enter “Channels” tab and click the channel where to load the sensor on
- “Channel settings” panel is prompted: **select “Analog” management**
- select the configuration function "Temperature” and the temperature type
- by default the software sets “PT-100”
- press “Save” and then “Transmit” to transmit the configuration to your device.

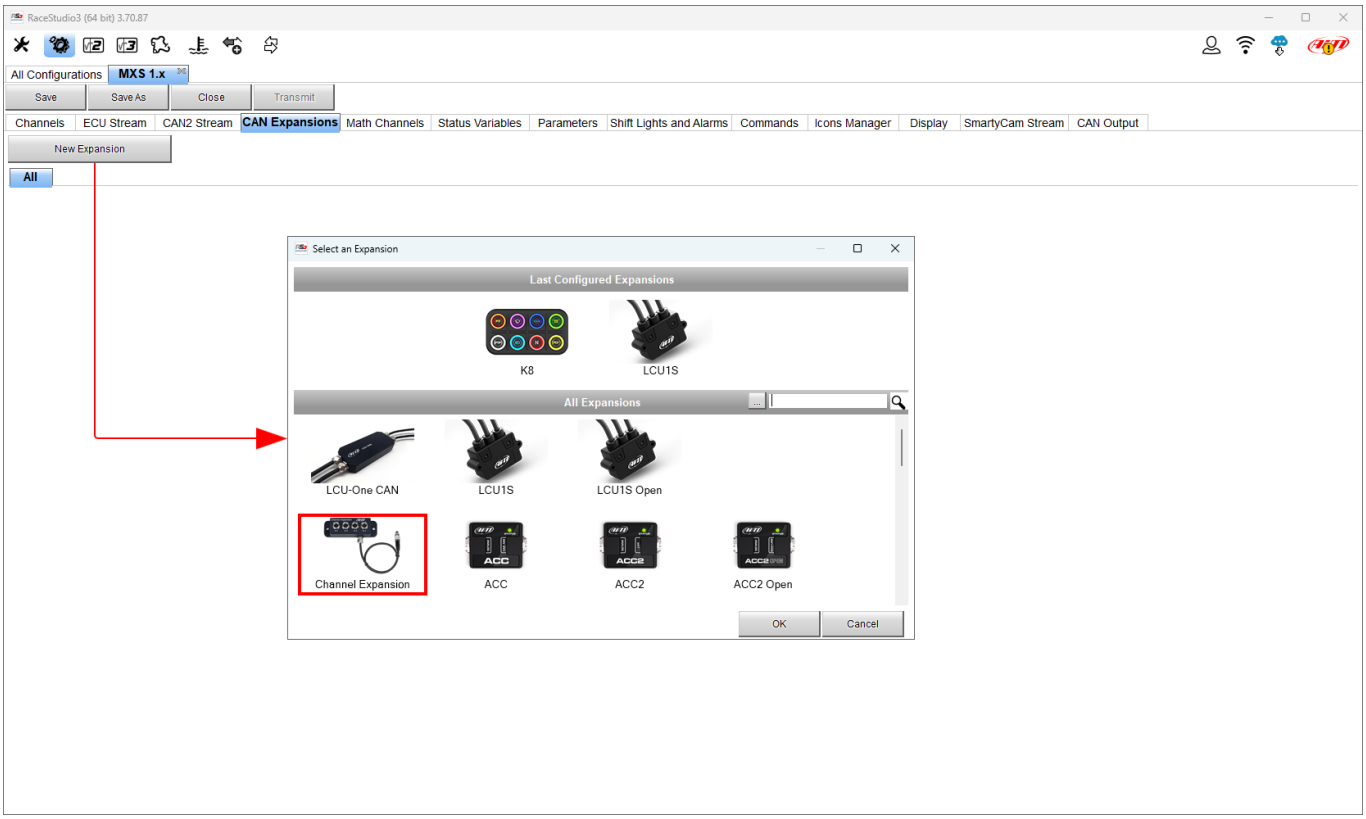


AiM devices that manage the channels **only through an additional optional AiM CAN Expansion (Channel expansion and ACC2)** are:

- SW4
- Solo 2 DL
- MXK10 Gen4
- MXK10 Gen5
- MX2E

To configure the sensor:

- enter “CAN Expansions” tab and click “New Expansion” button
- select the expansion you want to connect your device to and press “OK”
- once the expansion loaded the related setting tab is prompted: click the channel where to load the sensor on and manage it as explained in the previous paragraph according to the device it is connected to



## 2.3
## Option to select in RaceStudio 3 for the pressure configuration

To configure the correct pressure sensors you need to know the option to select in the channel configuration. In the table below they are listed.

| Pressure range | RaceStudio 3 selection | |
|---|---|---|
| | Temperature channel | Pressure channel |
| 0-5 Bar | PT-100 | 0-5 bar (X05PSA00005Bxx) |
| 0-10 Bar | PT-100 | 0-10 bar (X05PSA000010Bxx) |
| 0-100 Bar | PT-100 | 0-100 bar (X05PSA00100Bxx) |
| 0-160 Bar | PT-100 | 0-160 bar (X05PSA00160Bxx) |
| | | |
| 0-15 PSI | PT-100 | 0-15 psi (X05PSA00015P18) |
| 0-50 PSI | PT-100 | 0-50 psi (X05PSA00050P18) |
| 0-150 PSI | PT-100 | 0-150 PSI (X05PSA00150P18) |
| 0-300 PSI | PT-100 | 0-300 psi (X05PSA00300P18) |
| 0-2000 PSI | PT-100 | 0-2000 psi (X05PSA02000P18) |
| | | |
| 0-5 Bar Absolute | PT-100 | 0-5 bar abs (X05PSA00005Bxxx) |
| 0-50 PSI Absolute | PT-100 | 0-50 psi abs (X05PSA00050P18A) |