

AiM Infotech

Turbo pressure sensor
from -1 to 3 bar
Race Studio 2 configuration

Release 1.00



1 Introduction

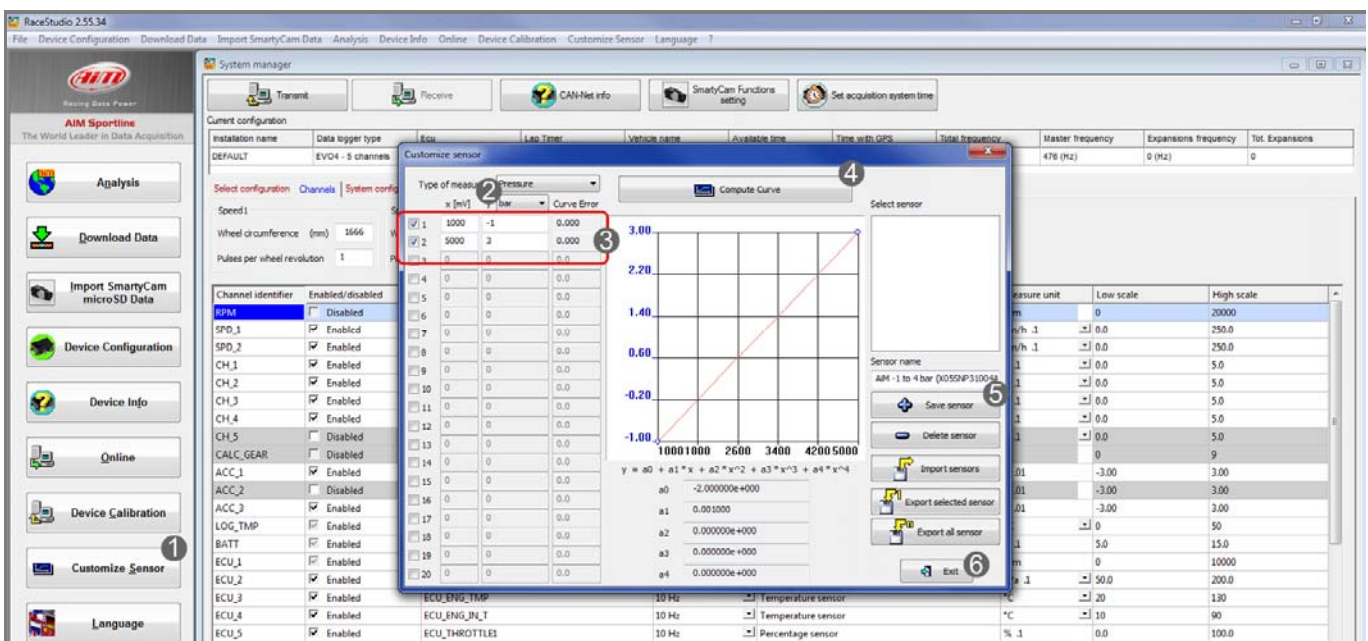
Once pressure sensor from -1 to 3 bar is physically connected to one of the channels of AiM device it has to be loaded in the related configuration using AiM configuration software. In this datasheet it is loaded using **Race Studio 2** software.

2 Setup with Race Studio 2

- with the device switched on and connected to a PC run the software and select the device the sensor is connected to; create a custom sensor pressing "Customize Sensor" (1)
- select the type of measure (Pressure) and the measure unit (bar) (2);
- complete the first two rows of the table on the left of the panel as follows (3):

| X [Mv] | Y [Bar] |
|--------|---------|
| 1000 | -1 |
| 5000 | 3 |

- press "Compute curve" (4), fill in sensor name – in the example "AiM -1 to 3 bar (X05SNP31004A)" - and press "Save sensor" (5); press "Exit" (6)



To set the sensor in the device configuration:

- enter "Channels" layer
- set the sensor on a channel selecting "AiM -1 to 3 bar (X05SNP31004A)" in sensor type column of the desired channel (in the example CAN channel 5)
- press "Transmit".

The screenshot shows the RaceStudio 2.55.34 interface. The 'Channels' configuration window is open, displaying a list of channels. Channel 5 is selected, and its sensor type is set to 'AiM -1 to 3 bar (X05SNP31004A)'. The 'Transmit' button is highlighted in the top left corner of the configuration window.

| Channel identifier | Enabled/disabled | Channel name | Sampling frequency | Sensor type | Measure unit | Low scale | High scale |
|--------------------|---|------------------|--------------------|---------------------------------|--------------|-----------|------------|
| RPM | <input type="checkbox"/> Disabled | Engine | 10 Hz | Engine revolution speed | rpm | 0 | 20000 |
| SPD_1 | <input checked="" type="checkbox"/> Enabled | Speed1 | 10 Hz | Speed | km/h | 0.0 | 250.0 |
| SPD_2 | <input checked="" type="checkbox"/> Enabled | Speed2 | 10 Hz | Speed | km/h | 0.0 | 250.0 |
| CH_1 | <input checked="" type="checkbox"/> Enabled | Channel_1 | 10 Hz | Generic linear 0-5 V | V | 0.0 | 5.0 |
| CH_2 | <input checked="" type="checkbox"/> Enabled | Channel_2 | 10 Hz | Generic linear 0-5 V | V | 0.0 | 5.0 |
| CH_3 | <input checked="" type="checkbox"/> Enabled | Channel_3 | 10 Hz | Generic linear 0-5 V | V | 0.0 | 5.0 |
| CH_4 | <input checked="" type="checkbox"/> Enabled | Channel_4 | 10 Hz | Generic linear 0-5 V | V | 0.0 | 5.0 |
| CH_5 | <input checked="" type="checkbox"/> Enabled | Channel_5 | 10 Hz | AiM -1 to 3 bar (X05SNP31004A) | bar | 0 | 5 |
| CALC_GEAR | <input type="checkbox"/> Disabled | Calculated_Gear | 10 Hz | Calculated Gear | | 0 | 9 |
| ACC_1 | <input checked="" type="checkbox"/> Enabled | Lateral_acc | 10 Hz | Lateral accelerometer | g | -3.00 | 3.00 |
| ACC_2 | <input type="checkbox"/> Disabled | Longitudinal_acc | 10 Hz | Longitudinal accelerometer | g | -3.00 | 3.00 |
| ACC_3 | <input checked="" type="checkbox"/> Enabled | Vertical_acc | 10 Hz | Vertical internal accelerometer | g | -3.00 | 3.00 |
| LOG_TMP | <input checked="" type="checkbox"/> Enabled | Datalogger_Temp | 10 Hz | Cold joint | °C | 0 | 50 |
| BATT | <input checked="" type="checkbox"/> Enabled | Battery | 1 Hz | Battery | V | 5.0 | 15.0 |
| ECU_1 | <input checked="" type="checkbox"/> Enabled | ECU_RPM | 10 Hz | Engine speed sensor | rpm | 0 | 10000 |
| ECU_2 | <input checked="" type="checkbox"/> Enabled | ECU_MMAN_AIR_PR | 10 Hz | Pressure sensor | kPa | -50.0 | 200.0 |
| ECU_3 | <input checked="" type="checkbox"/> Enabled | ECU_ENG_TMP | 10 Hz | Temperature sensor | °C | 20 | 130 |
| ECU_4 | <input checked="" type="checkbox"/> Enabled | ECU_ENG_IN_T | 10 Hz | Temperature sensor | °C | 10 | 90 |
| ECU_5 | <input checked="" type="checkbox"/> Enabled | ECU_THROTTLE1 | 10 Hz | Percentage sensor | % | 0.0 | 100.0 |
| ECU_6 | <input checked="" type="checkbox"/> Enabled | ECU_CHARGE_T | 10 Hz | Temperature sensor | °C | 10 | 90 |
| ECU_7 | <input checked="" type="checkbox"/> Enabled | ECU_GEAR | 5 Hz | Gear sensor | # | 0 | 7 |
| ECU_8 | <input checked="" type="checkbox"/> Enabled | ECU_V_BATT | 10 Hz | Voltmeter | V | 5.0 | 20.0 |
| ECU_9 | <input checked="" type="checkbox"/> Enabled | ECU_OIL_PR | 10 Hz | Pressure sensor | kPa | 0.0 | 1000.0 |
| ECU_10 | <input checked="" type="checkbox"/> Enabled | ECU_OIL_TMP | 10 Hz | Temperature sensor | °C | 10 | 150 |
| ECU_11 | <input checked="" type="checkbox"/> Enabled | ECU_FUEL_PR | 10 Hz | Pressure sensor | kPa | 0.0 | 1000.0 |
| ECU_12 | <input checked="" type="checkbox"/> Enabled | ECU_FUEL_TMP | 10 Hz | Temperature sensor | °C | 10 | 90 |
| ECU_13 | <input checked="" type="checkbox"/> Enabled | ECU_EXH_PRE | 10 Hz | Pressure sensor | kPa | 20.0 | 100.0 |
| ECU_14 | <input checked="" type="checkbox"/> Enabled | ECU_EXH_PRE | 10 Hz | Pressure sensor | kPa | 0.0 | 100.0 |