

AiM Infotech

Car/bike rotatory
potentiometer – Race
Studio 2 configuration –
throttle

Release 1.00



1 Introduction

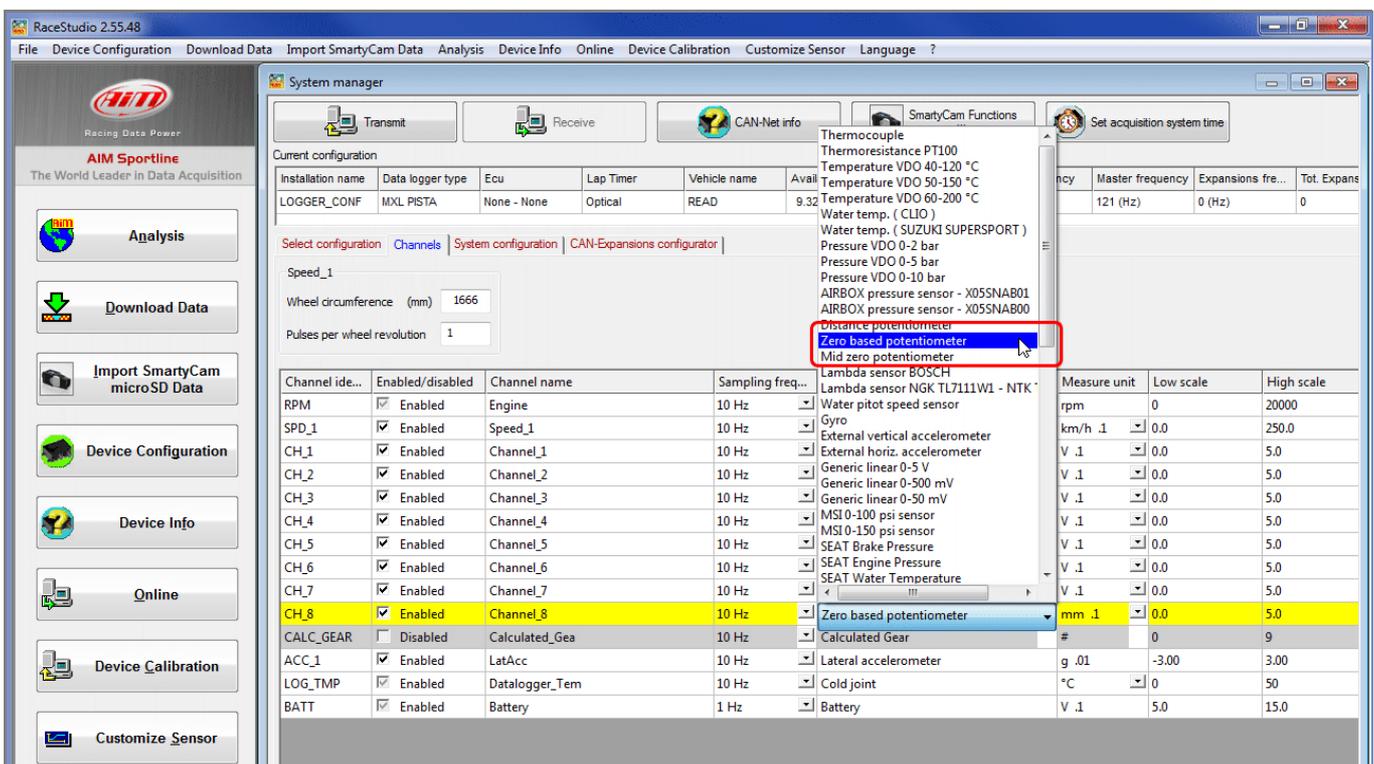
This datasheet explains how to configure with Race Studio 2 the throttle potentiometer for car/bike installations.

AiM instruments can measure the relative displacement between two different points using a sensor (rotary potentiometer) directly connected to the two measure points. This sensor may be used to measure angular displacements, such as throttle position.

2 Setup with Race Studio 2

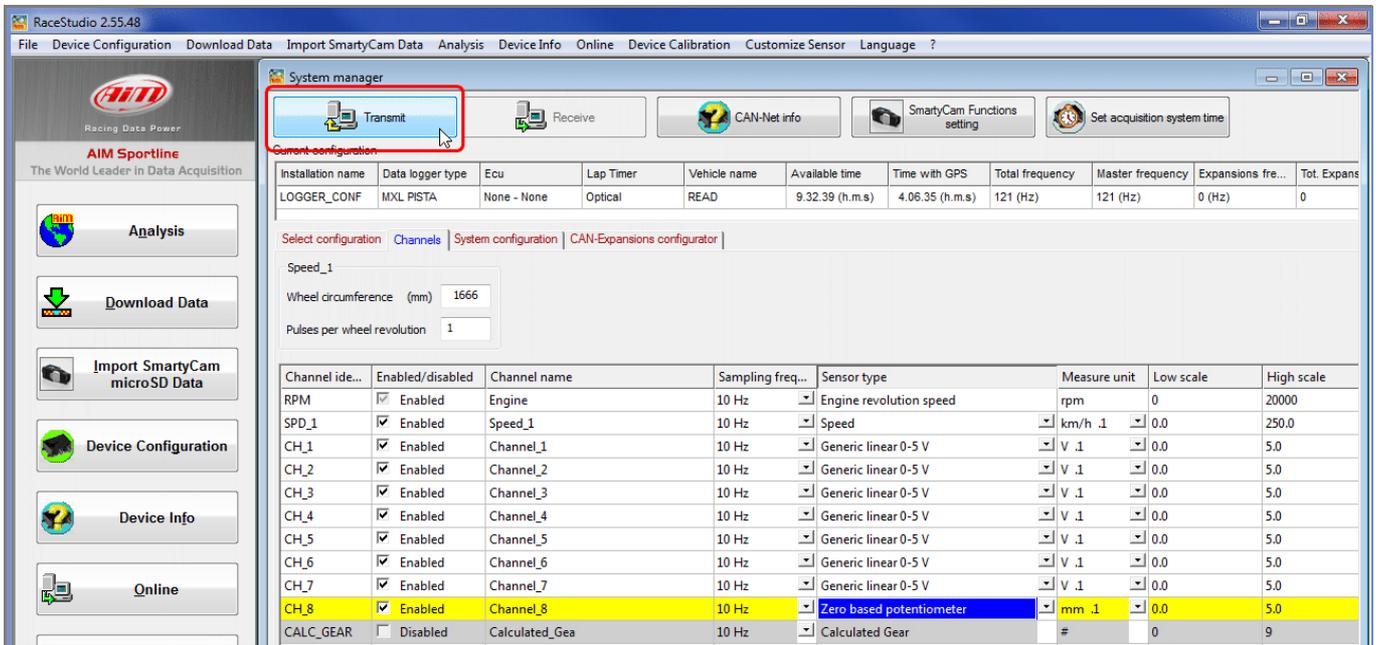
To load the potentiometer in AiM logger configuration:

- run the software, select the logger in use and the configuration to set the potentiometer on and enter "Channels" layer
- select the channel where to set the potentiometer on (in the example channel 8) and select "Zero based potentiometer" in "Sensor type" column as shown here below.



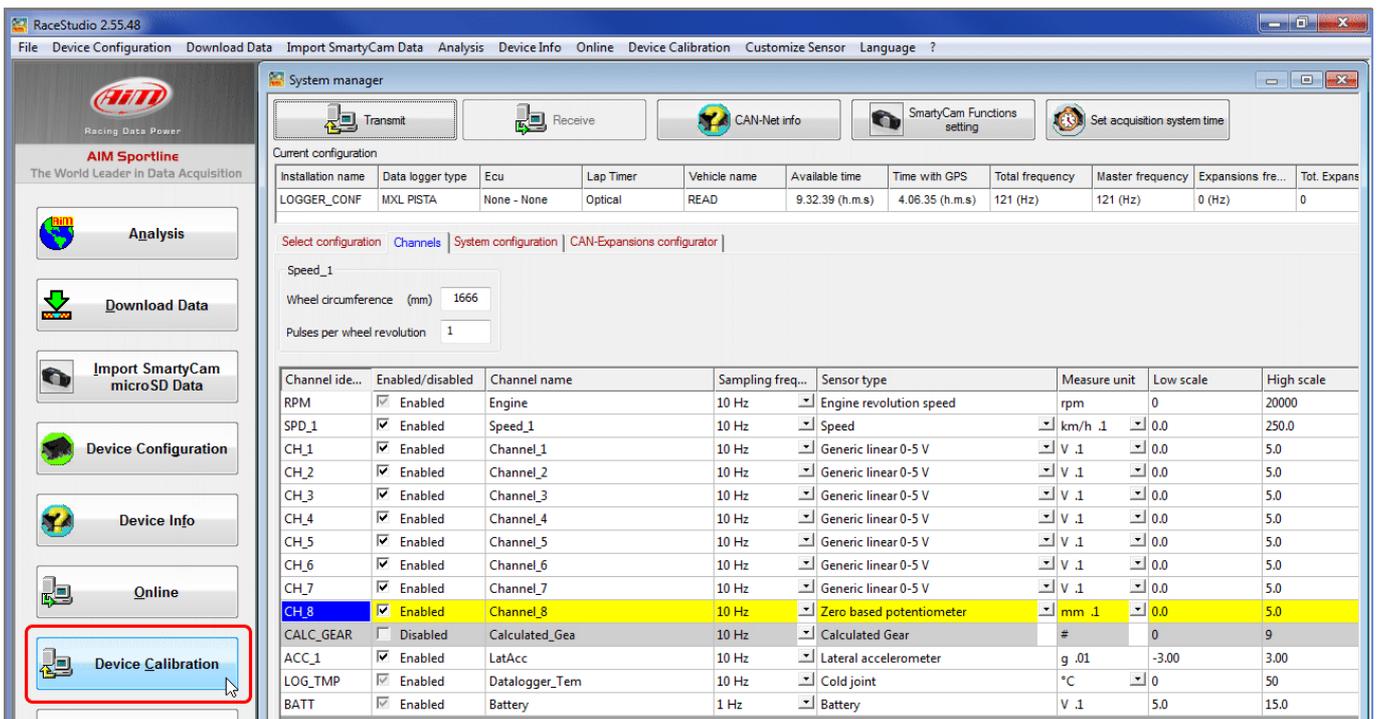


Transmit the configuration to the logger pressing "Transmission".



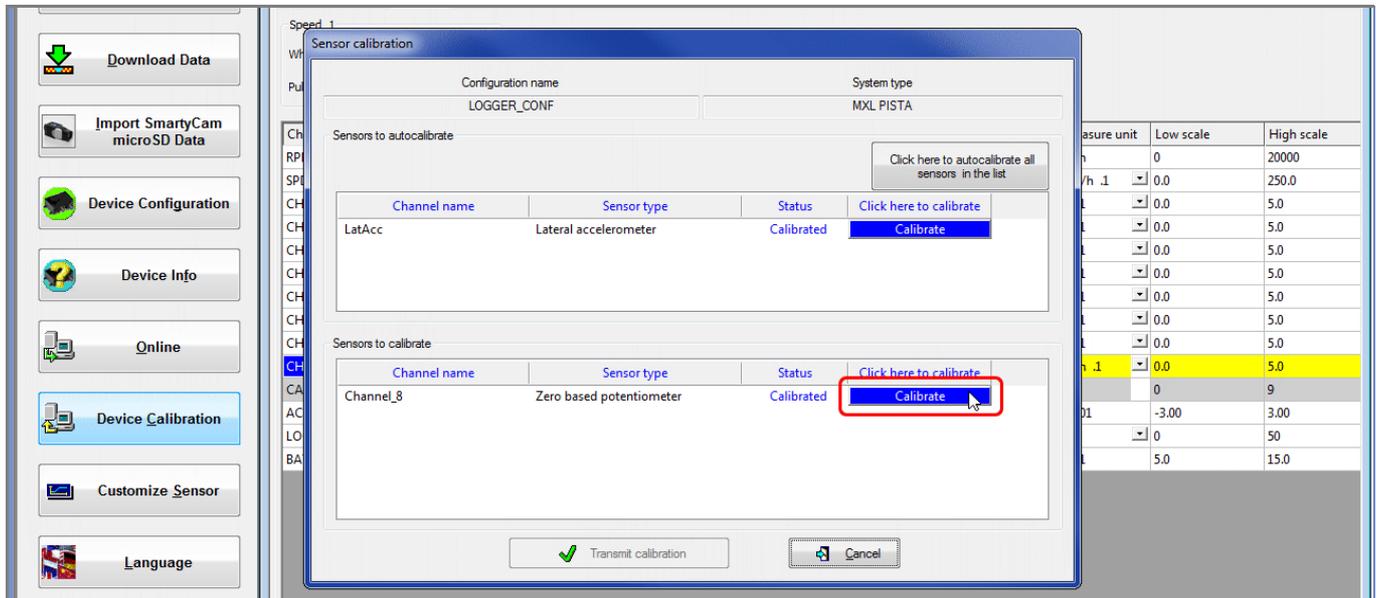
To calibrate the potentiometer:

- Press "Device Calibration"



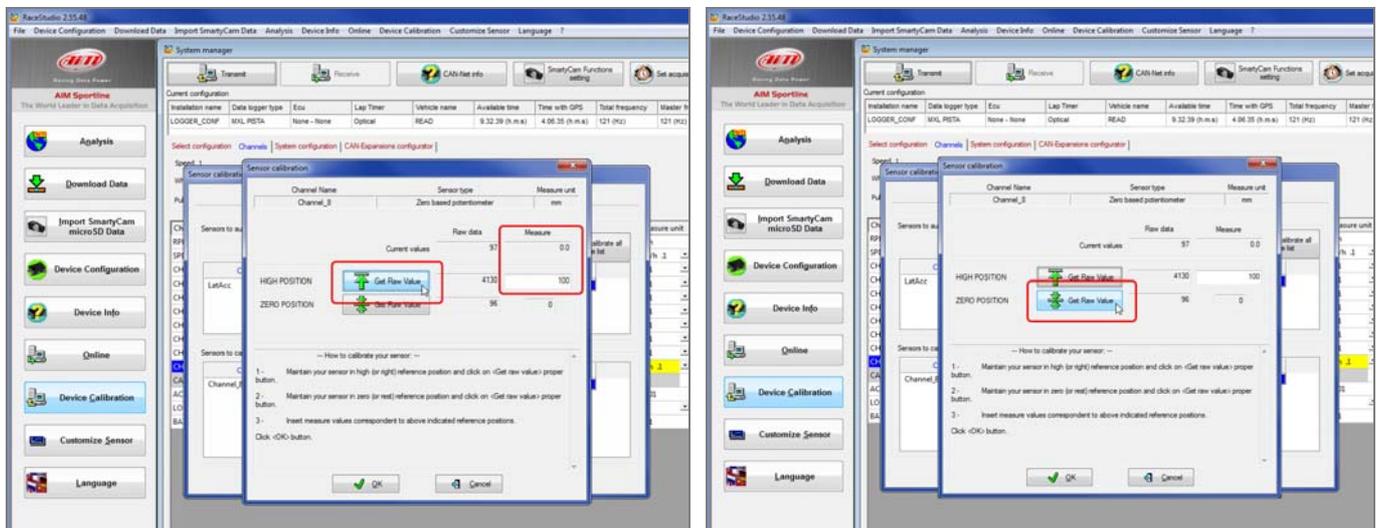
Calibration panel shows up:

- Press "Calibrate" button of "Zero based potentiometer"



To learn the calibration points the software shows the related panel:

- with the throttle in its high position press "Get raw value" corresponding to high position, fill in the reference value in the related cells highlighted here below on the left
 - "0" for zero position
 - "100" for high position
- with the throttle in its zero position press "Get raw value" corresponding to zero position (image here below on the right)
- press "OK"



When calibration is over potentiometer status will turn to "Calibrated" and become red:

- Transmit the calibration to the logger pressing "Transmit Calibration"

The screenshot shows the 'Sensor calibration' dialog box in RaceStudio 2.55.48. The dialog is titled 'Sensor calibration' and contains the following information:

- Configuration name:** LOGGER_CONF
- System type:** MXL PISTA

There are two sections for sensor calibration:

- Sensors to autocalibrate:**

Channel name	Sensor type	Status	Click here to calibrate
LatAcc	Lateral accelerometer	Calibrated	Calibrate
- Sensors to calibrate:**

Channel name	Sensor type	Status	Click here to calibrate
Channel_8	Zero based potentiometer	Calibrated	Calibrate

At the bottom of the dialog, there is a 'Transmit calibration' button (highlighted with a red box) and a 'Cancel' button.