

# Configuring a generic fuel level sensor with RS2

#### Question:

How can I configure a generic fuel level sensor with RS2?

#### Answer:

Once the sensor and the additional pull up resistor connected, you need to find the correspondence between tension read by AiM device and fuel level in the tank and ensure that your AiM device reads this correspondence.

Proceed adding fuel step by step (eg. 3 litres at a time); at the same time go Online with Race Studio 2 to read the tension (mV) detected by AiM device in real time. Take note of mill volts and corresponding litres poured in the tank to complete sensor characterization.

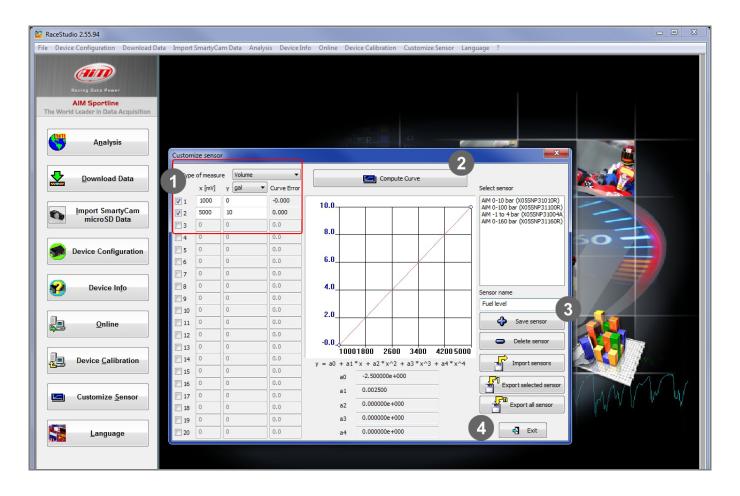
Once all needed info collected, use Race Studio 2 **custom sensor** menu, to fill in collected values and make the software compute the sensor curve. The new sensor is now available to be set on an analog input.



### **Race Studio 2**

Proceed as follows:

- run the software and press "Custom Sensor"
- select type of measure, measure unit, enable the rows you need and fill in collected values (1)
- press "Compute curve" (2), fill in sensor name and press "save sensor" (3)
- press "Exit" (**4**)





## Race Studio 2

To load the sensor in AiM device configuration:

- press "Device configuration" on the software left keyboard, select your device and the configuration where to load the sensor
- enable "Channels" layer (1)
- select the channel where to set the sensor on and select it from the drop down menu in "Sensor type" column (2)
- transmit the configuration to the device pressing "Transmit" (3)

Device Configuration Download Da	a Import SmartyCa		Jevice Info Online	Device Calibration	Customize Sensor	Langu	age :					
Racing Data Power		r 3	Receive	CAN-Net info	Net info		SmartyCam Functions setting Set acqui		ition system time			
	Current configuration										J	
AIM Sportline World Leader in Data Acquisition	Installation name Data logger type		Ecu Lap Timer		Vehicle name	Avai	lable time Time with		GPS Total frequenc		Master fi	requer
	DEFAULT	EV04 - 5 channels	PORSCHE - CAYM	Optical	DEFAULT		.56 (h.m.s)	3.44.08 (h.m			461 (Hz)	
A <u>n</u> alysis	Select configuratio.	1 	nfiguration Display	CAN-Expansions conf	gurator					·		
	Speed1		Speed2									
Download Data	Wheel circumference (mm) 1666 Wheel circumference (mm) 1666											
	Pulses per wheel r	evolution 1	Pulses per wheel reve	olution 1								
Import SmartyCam microSD Data	Channel identif	Enabled/disabled	d/disabled Channel name			Sampling freque Sensor type					unit	Lov
	RPM	Disabled	Engine		10 Hz	•	Engine revolution speed			rpm		0
	SPD_1	Enabled	Speed1	10 Hz	•	Speed	d I				<b>-</b> 0.0	
Device Configuration	SPD_2	Enabled	Speed2	10 Hz	•	Speed			⊥ km/h .1		<b>1</b> 0.0	
	CH_1	Enabled	Channel_1	10 Hz	•	Thermocouple				-	- 0	
	CH_2	Enabled	Channel_2		10 Hz	•	Generic linear 0-5 V			▼ V.1	<u>_</u>	<u>- 1 0.0</u>
Device In <u>f</u> o	CH_3	Enabled	Channel_3		10 Hz	•	Air temp. ( FR2000 )			_ deg .1	-	<b>1</b> 0.0
	CH_4	Enabled	Channel_4		10 Hz	-	Oil press. ( REI	Oil press. ( RENAULT ) Air press. ( RENAULT )			-	- 0.0
	CH_5	Disabled	Channel_5		10 Hz	•		r press. ( RENAULT ) ater temp. AIM ( FR2000 )			1	- 0.0
<u>O</u> nline	CALC_GEAR	Disabled	Calculated_Gear	10 Hz		Pressure sensor			#		0	
	ACC_1	Enabled	Acc_Laterale		10 Hz	•	MSI 0-2000 PSI sensor AVIORACE_SP35_Pressure sensor			g .01		-3.0
	ACC_2	Enabled	Acc_Longitudinale		10 Hz	•	AEM 30 PSI Press sensor		g .01		-3.0	
Device <u>Calibration</u>	ACC_3	Enabled	Acc_Verticale	10 Hz	-	AEM 30 PSI INHg/PSI Press sensor Kavlico 50 PSI Press sensor			g .01		-3.0	
	LOG_TMP	Enabled	Datalogger_Temp	10 Hz	•	GM 3 Bar Map sensor			°C		- 0	
	BATT	Enabled	Battery	1 Hz	•	KA 0-150 PSI Press sensor AEM 30 1000 PSI Press sensor			V .1		5.0	
	ECU_1	Enabled	ECU_RPM	10 Hz	-	Delphi IAT #25036751 Temp sensor			rpm		0	
Customize <u>S</u> ensor	ECU 2	Enabled	ECU TPS	10 Hz	•	Texsense INFKL 800 C IR Temp sensor			% .1		0.0	
	ECU 3	Enabled	ECU ECT	10 Hz	-	Texsense INFKL 200 C IR Temp sensor Texsense INFKL 150 C IR Temp sensor			- °C		- 0	
	ECU 4	Enabled	ECU_OIL_T		10 Hz	•	PRS-831 0-50 PSI MAP a		ute	°C		- 0
Language	ECU 5	Enabled	ECU_OIL_P	10 Hz	•	PRS-832 0-15 PRS-834 0-50	120		bar .1		-10	
	ECU 6	Enabled	ECU AIRBOX P		10 Hz	PRS-837 0-150 PSI		PSI		mbar		- 0
	ECU 7	Enabled	ECU INT AIR T		10 Hz	PRS-838 0-30 PRS-839 0-20		PSI		≡ °C		- 0
	ECU_8	Enabled	ECU_ACC_LAT		10 Hz	-	AiM 0-10 bar (X05SNP31010R)		m/s^2		50	
	ECU 9	Enabled	ECU_ACC_LONG		10 Hz	•	AiM 0-100 bar (X05SNP31100R) AiM -1 to 4 bar (X05SNP31004A)			2 12		-50
	ECU 10	Enabled Enabled	ECU_YAW_RATE		10 Hz			AllVI -1 (0 4 bal (X03514F31004A)				-10
	ECU 11	Enabled	ECU_YAW_RATE ECU_STEER_ANG		10 Hz		uel level		→ deg .1		-10 -18	
aim-sportline.com	ECU 12	Enabled	ECU_STEER_ANG		10 Hz				63	* peg .1		니 -18 네 0.0
© 2007 AIM SBL	ECU_12 ECU_13	Enabled	ECU_SPEED_FL		10 Hz		Speed sensor			km/h .1		- 0.0