

AiM Infotech

Car speed sensor – Race Studio 2 configuration

Release 1.00



1 Introduction

This datasheet explains how to configure the car speed sensor using AiM Race Studio 2 software.

2 Setup with con Race Studio 2

To load the sensor in the logger configuration:

- run the software, select the logger in use and the configuration to set the sensor on (in the example EVO4) and enter "Channels" layer
- if speed channels are enabled you can fill in the related panels highlighted here below.

Speed1

Wheel circumference (mm) 1666

Pulses per wheel revolution 1

Speed2

Wheel circumference (mm) 1666

Pulses per wheel revolution 1

Channel identifier	Enabled/disabled	Channel name	Sampling frequency	Sensor type	Measure
RPM	<input type="checkbox"/> Disabled	Engine	10 Hz	Engine revolution speed	rpm
SPD_1	<input checked="" type="checkbox"/> Enabled	Speed1	10 Hz	Speed	km/h .1
SPD_2	<input checked="" type="checkbox"/> Enabled	Speed2	10 Hz	Speed	km/h .1
CH_1	<input checked="" type="checkbox"/> Enabled	Channel_1	10 Hz	Generic linear 0-5 V	V .1
CH_2	<input checked="" type="checkbox"/> Enabled	Channel_2	10 Hz	Zero based potentiometer	mm .1
CH_3	<input checked="" type="checkbox"/> Enabled	Channel_3	10 Hz	AiM 0-100 bar (X05SNP31100R)	bar
CH_4	<input checked="" type="checkbox"/> Enabled	Channel_4	10 Hz	AiM 0-10 bar (X05SNP31010R)	bar
CH_5	<input type="checkbox"/> Disabled	Channel_5	10 Hz	AiM 0-4 bar (X05SNP31004A)	bar
CALC_GEAR	<input type="checkbox"/> Disabled	Calculated_Gear	10 Hz	Calculated Gear	#
ACC_1	<input checked="" type="checkbox"/> Enabled	Lateral_acc	10 Hz	Lateral accelerometer	g .01
ACC_2	<input type="checkbox"/> Disabled	Longitudinal_acc	10 Hz	Longitudinal accelerometer	g .01
ACC_3	<input checked="" type="checkbox"/> Enabled	Vertical_acc	10 Hz	Vertical internal accelerometer	g .01
LOG_TMP	<input checked="" type="checkbox"/> Enabled	Datalogger_Temp	10 Hz	Cold joint	°C
BATT	<input checked="" type="checkbox"/> Enabled	Battery	1 Hz	Battery	V .1
ECU_1	<input checked="" type="checkbox"/> Enabled	RPM	10 Hz	Engine speed sensor	rpm
ECU_2	<input checked="" type="checkbox"/> Enabled	PEDAL_POSITION	10 Hz	Percentage sensor	% .1
ECU_3	<input checked="" type="checkbox"/> Enabled	SPEED_BMW	10 Hz	Speed sensor	km/h .1
ECU_4	<input checked="" type="checkbox"/> Enabled	SPEED2_BMW	10 Hz	Speed sensor	km/h .1
ECU_5	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_FR_LF	10 Hz	Speed sensor	km/h .1
ECU_6	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_FR_RH	10 Hz	Speed sensor	km/h .1
ECU_7	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_RR_LF	10 Hz	Speed sensor	km/h .1



- Select the speed channel where to set the sensor on and select "Speed" in "Sensor type" column as shown here below. Fill in the related panel.

Channel identifier	Enabled/disabled	Channel name	Sampling frequency	Sensor type	Measure
RPM	<input type="checkbox"/> Disabled	Engine	10 Hz	Engine revolution speed	rpm
SPD_1	<input checked="" type="checkbox"/> Enabled	Speed1	10 Hz	Speed	km/h .1
SPD_2	<input checked="" type="checkbox"/> Enabled	Speed2	10 Hz	Speed	km/h .1
CH_1	<input checked="" type="checkbox"/> Enabled	Channel_1	10 Hz	Detonation	V .1
CH_2	<input checked="" type="checkbox"/> Enabled	Channel_2	10 Hz	Revolution speed	mm .1
CH_3	<input checked="" type="checkbox"/> Enabled	Channel_3	10 Hz	ABS speed sensor	
CH_4	<input checked="" type="checkbox"/> Enabled	Channel_4	10 Hz	AiM 0-100 bar (X05SNP31100R)	bar
CH_5	<input checked="" type="checkbox"/> Enabled	Channel_5	10 Hz	AiM 0-10 bar (X05SNP31010R)	bar
CH_5	<input type="checkbox"/> Disabled	Channel_5	10 Hz	AiM 0-4 bar (X05SNP31004A)	bar
CALC_GEAR	<input type="checkbox"/> Disabled	Calculated_Gear	10 Hz	Calculated Gear	#
ACC_1	<input checked="" type="checkbox"/> Enabled	Lateral_acc	10 Hz	Lateral accelerometer	g .01
ACC_2	<input type="checkbox"/> Disabled	Longitudinal_acc	10 Hz	Longitudinal accelerometer	g .01
ACC_3	<input checked="" type="checkbox"/> Enabled	Vertical_acc	10 Hz	Vertical internal accelerometer	g .01
LOG_TMP	<input checked="" type="checkbox"/> Enabled	Datalogger_Temp	10 Hz	Cold joint	°C
BATT	<input checked="" type="checkbox"/> Enabled	Battery	1 Hz	Battery	V .1
ECU_1	<input checked="" type="checkbox"/> Enabled	RPM	10 Hz	Engine speed sensor	rpm
ECU_2	<input checked="" type="checkbox"/> Enabled	PEDAL_POSITION	10 Hz	Percentage sensor	% .1
ECU_3	<input checked="" type="checkbox"/> Enabled	SPEED_BMW	10 Hz	Speed sensor	km/h .1
ECU_4	<input checked="" type="checkbox"/> Enabled	SPEED2_BMW	10 Hz	Speed sensor	km/h .1
ECU_5	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_FR_LF	10 Hz	Speed sensor	km/h .1
ECU_6	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_FR_RH	10 Hz	Speed sensor	km/h .1
ECU_7	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_RR_LF	10 Hz	Speed sensor	km/h .1
ECU_8	<input checked="" type="checkbox"/> Enabled	WHEEL_SPD_RR_RH	10 Hz	Speed sensor	km/h .1
ECU_9	<input checked="" type="checkbox"/> Enabled	STEER_ANGLE	10 Hz	Angle sensor	deg
ECU_10	<input checked="" type="checkbox"/> Enabled	CLUTCH_SWITCH	10 Hz	Raw value	#
ECU_11	<input checked="" type="checkbox"/> Enabled	BRAKE_SWITCH	10 Hz	Raw value	#
ECU_12	<input checked="" type="checkbox"/> Enabled	BRAKE_PRESS	10 Hz	Pressure sensor	bar .1
ECU_13	<input checked="" type="checkbox"/> Enabled	BRAKE_PR_FR_LF	10 Hz	Pressure sensor	bar .1
ECU_14	<input checked="" type="checkbox"/> Enabled	BRAKE_DR_FR_RH	10 Hz	Pressure sensor	bar .1

Transmit the configuration to the logger pressing "Transmit".