

AiM Infotech

Inductive Contrinex car speed sensor – Race Studio 2 configuration

Release 1.00



1 Introduction

This datasheet explains how to configure inductive Contrinex 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.

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.

System manager

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency
DEFAULT	EVO4 - 5 channels	BMW - BMW_PT6	Optical	DEFAULT	5.40.19 (h.m.s)	4.04.37 (h.m.s)	409 (Hz)

Select configuration Channels System configuration Display CAN-Expansions configurator

Speed1 Speed2

Wheel circumference (mm) 1666 Wheel circumference (mm) 1666

Pulses per wheel revolution 1 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	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 (X055NP31100R)	bar
CH_5	<input checked="" type="checkbox"/> Enabled	Channel_5	10 Hz	AiM 0-10 bar (X055NP31010R)	bar
CH_5	<input type="checkbox"/> Disabled	Channel_5	10 Hz	AiM 0-4 bar (X055NP31004A)	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".

System manager

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency
DEFAULT	EVO4 - 5 channels	BMW - BMW_PT6	Optical	DEFAULT	5.40.19 (h.m.s)	4.04.37 (h.m.s)	409 (Hz)

Select configuration Channels System configuration Display CAN-Expansions configurator

Speed1 Speed2

Wheel circumference (mm) 1666 Wheel circumference (mm) 1666

Pulses per wheel revolution 1 Pulses per wheel revolution 1