



AiM Infotech

Inductive Contrinex car speed sensor Configuration with Race Studio 3

Release 1.00



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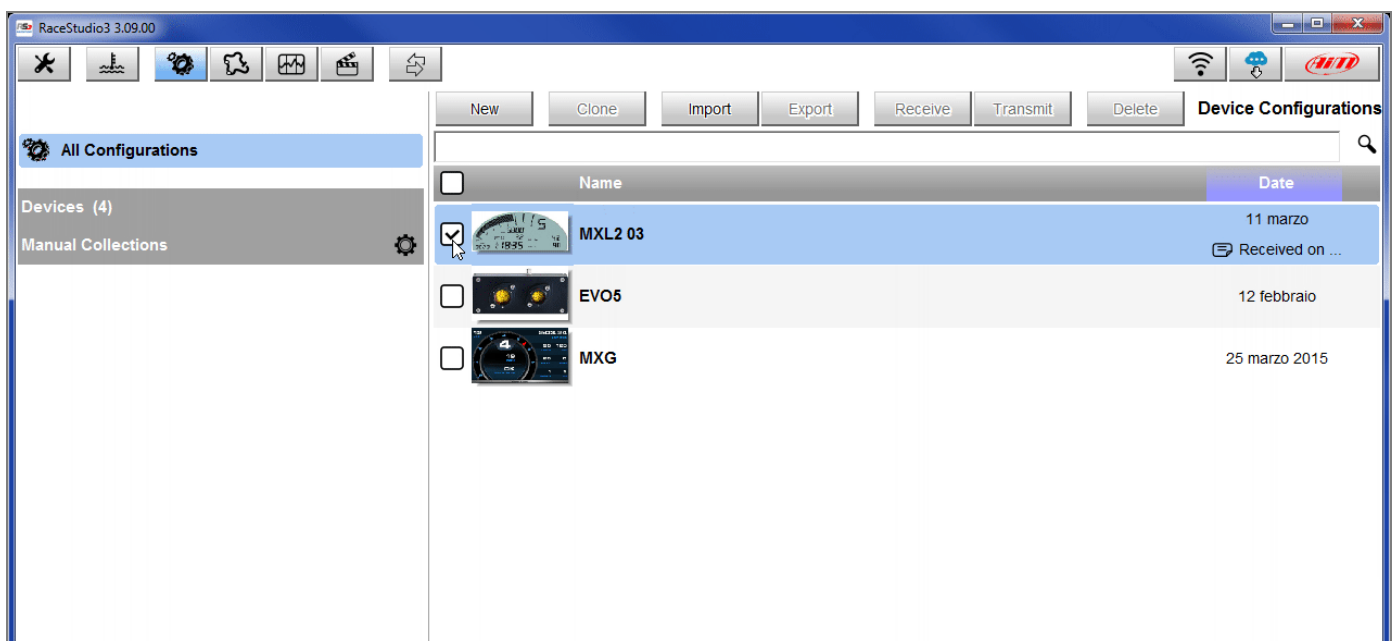
Introduction

This datasheet explains how to configure inductive Contrinex car speed sensor using AiM Race Studio 3 software.

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Setup with Race Studio 3

To load the car speed sensor in AiM logger configuration run the software and select the configuration you are going to load it on (in the example MXL2 03).



The software enters "Channels" layer.

- Select the speed channel where to set the sensor – in the example Speed2 (1) and fill in the panel that shows up
- Select "Speed" function and choose:
 - Vehicle Speed, fill in the panel and press "Save" or
 - Wheel Speed(2)

The screenshot shows the RaceStudio3 3.09.00 interface. The 'Channels' tab is active, displaying a table of channels. A 'Channel Settings' dialog box is open for 'Speed2', showing configuration options for 'Vehicle Spd' and 'Wheel Spd'.

ID	Name	Function	Sensor	Unit	Freq	Parameters
RPM	RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	Speed1					wheel: 1600 ; pulses: 1 ;
Spd2	Speed2					wheel: 1600 ; pulses: 1 ;
Spd3	Speed3					wheel: 1600 ; pulses: 1 ;
Spd4	Speed4					wheel: 1600 ; pulses: 1 ;
Ch01	Channel01					
Ch02	Channel02					
Ch03	Channel03					
Ch04	Channel04					
Ch05	Channel05					
Ch06	Channel06					
Ch07	Channel07					
Ch08	Channel08					
AccX	AccelerometerX					
AccY	AccelerometerY					
AccZ	AccelerometerZ					
GyrX	GyroX	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
GyrY	GyroY	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
GyrZ	GyroZ	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
Spd	GPS Speed	Vehicle Spd	AIM GPS	km/h 0.1	10 Hz	
OdD	Odometer	Odometer Total	AIM ODO	km 0.1	1 Hz	

Channel Settings
Name: Speed2
Function: Vehicle Spd
Sensor: Speed Sensor
Sampling Frequency: 20 Hz
Unit of Measure: km/h
Display Precision: 1 decimal place
Speed Parameters:
Wheel circumference [mm]: 1600
Pulse per wheel revolution: 1

In this second case a "position" option appears:

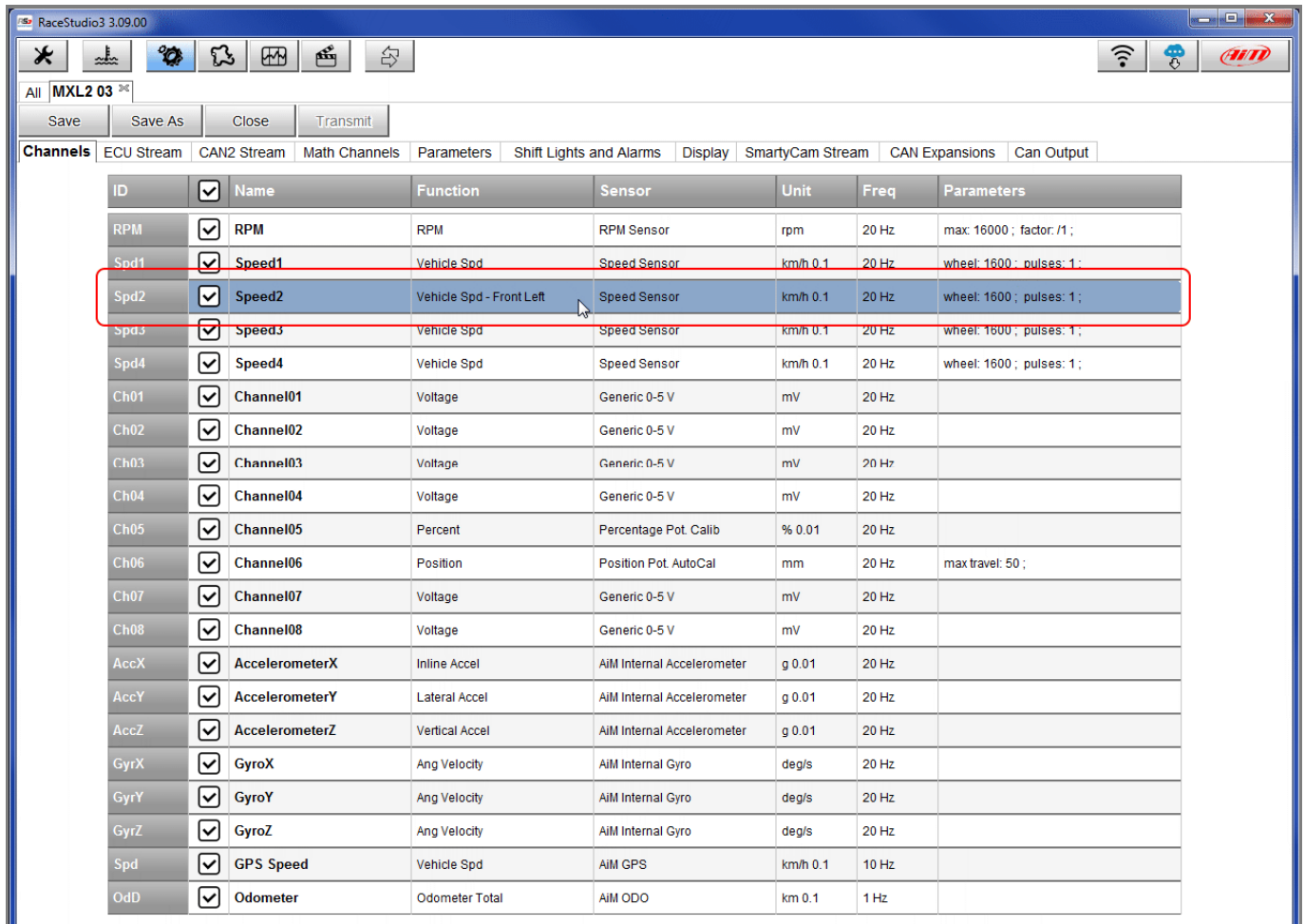
- click it and choose the panel below shows up:
- select the wheel
- press "Save"
- press "Save" again

The screenshot shows the RaceStudio3 3.09.00 interface. A table of channels is visible, and a dialog box titled "Choose position of measure" is open over it. The dialog box contains a top-down view of a car with four wheels marked by circles. The directions "Front", "Rear", "Left", and "Right" are labeled. A red dot is placed on the front-left wheel. The dialog box has "Save" and "Cancel" buttons at the bottom.

ID	Name	Function	Sensor	Unit	Freq	Parameters
RPM	RPM	RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: /1 ;
Spd1	Speed1					wheel: 1600 ; pulses: 1 ;
Spd2	Speed2					wheel: 1600 ; pulses: 1 ;
Spd3	Speed3					wheel: 1600 ; pulses: 1 ;
Spd4	Speed4					wheel: 1600 ; pulses: 1 ;
Ch01	Channel01					
Ch02	Channel02					
Ch03	Channel03					
Ch04	Channel04					
Ch05	Channel05					
Ch06	Channel06					
Ch07	Channel07					
Ch08	Channel08					
AccX	AccelerometerX					
AccY	AccelerometerY					
AccZ	AccelerometerZ					max travel: 50 ;
GyrX	GyroX	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
GyrY	GyroY	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
GyrZ	GyroZ	Ang Velocity	AIM Internal Gyro	deg/s	20 Hz	
Spd	GPS Speed	Vehicle Spd	AIM GPS	km/h 0.1	10 Hz	
OdD	Odometer	Odometer Total	AIM ODO	km 0.1	1 Hz	



The software shows the sensor properly set. In the example the sensor is set on "Speed2" channel and connected to the front left wheel.



Transmit the configuration to the logger pressing "Transmit".

