

AiM InfoTech

AiM pressure sensor
0-150 PSI
Race Studio 3 configuration

Release 1.01



Introduction

Once pressure sensor 0-150 PSI is physically connected to one of the device channels, it has to be loaded in the related configuration using AiM configuration software. In this datasheet it is loaded using **Race Studio 3** software.

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Setup with Race Studio 3

- with the device switched on and connected to the PC run the software and select the device the sensor is connected to
- select the configuration the sensor is to be loaded on or create a new one pressing "New" and select "Channels" layer as here below
- select the channel where to set the sensor (in the example below channel01)

The screenshot shows the Race Studio 3 software interface. The 'Channels' tab is active, displaying a table of configured channels. The table has columns for ID, Name, Function, Sensor, Unit, Freq, and Parameters. The 'Channel01' row is selected and highlighted in blue.

ID	<input type="checkbox"/>	Name	Function	Sensor	Unit	Freq	Parameters
RPM	<input checked="" type="checkbox"/>	RPM	Engine RPM	RPM Sensor	rpm	20 Hz	max: 16000 ; factor: 1 ;
Spd1	<input type="checkbox"/>	Speed1	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd2	<input type="checkbox"/>	Speed2	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd3	<input type="checkbox"/>	Speed3	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Spd4	<input type="checkbox"/>	Speed4	Vehicle Spd	Speed Sensor	km/h 0.1	20 Hz	wheel: 1600 ; pulses: 1 ;
Ch01	<input checked="" type="checkbox"/>	Channel01	Voltage	Generic 0-5 V	mV	20 Hz	
Ch02	<input checked="" type="checkbox"/>	Channel02	Voltage	Generic 0-5 V	mV	20 Hz	
Ch03	<input checked="" type="checkbox"/>	Channel03	Voltage	Generic 0-5 V	mV	20 Hz	

- a configuration panel shows up
- select: "Pressure" function as well as the kind of pressure to sample (1) among:
 - Oil pressure
 - Brake Pressure
 - Wheel Brake Pressure
 - Pressure (generic pressure – as in the example)
- select the sensor "AiM 0-150 PSI (X05PSA00150P18K)" (2)
- press "Save" (3)
- press "Transmit" (4)

The screenshot shows the RaceStudio3 software interface with the 'Channels' tab selected. A 'Channel Settings' dialog box is open for 'Channel01'. The configuration is as follows:

ID	Name	Function	Sensor	Unit	Freq	Par
RPM	<input checked="" type="checkbox"/> RPM	Engine RPM	RPM Sensor	rpm	20 Hz	max
Spd1	<input type="checkbox"/> Speed1	Vehicle Spd	Speed Sensor	kmh 0.1	20 Hz	whe
Spd2	<input type="checkbox"/> Speed2	Vehicle Spd	Speed Sensor	kmh 0.1	20 Hz	whe
Spd3	<input type="checkbox"/> Speed3					
Spd4	<input checked="" type="checkbox"/> Speed4					
Ch01	<input checked="" type="checkbox"/> Channel01					
Ch02	<input checked="" type="checkbox"/> Channel02					
Ch03	<input checked="" type="checkbox"/> Channel03					
Ch04	<input checked="" type="checkbox"/> Channel04					
Ch05	<input checked="" type="checkbox"/> Channel05					
Ch06	<input checked="" type="checkbox"/> Channel06					
Ch07	<input checked="" type="checkbox"/> Channel07					
Ch08	<input checked="" type="checkbox"/> Channel08					
Acc1	<input checked="" type="checkbox"/> InlineAcc					
Acc2	<input checked="" type="checkbox"/> LateralAcc					
Acc3	<input checked="" type="checkbox"/> VerticalAcc					
Gyr1	<input checked="" type="checkbox"/> RollRate					
Gyr2	<input checked="" type="checkbox"/> PitchRate	Pitch Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
Gyr3	<input checked="" type="checkbox"/> YawRate	Yaw Rate	AIM Internal Gyro	deg/s 0.1	50 Hz	
Accu	<input checked="" type="checkbox"/> GPS Accuracy	GPS Accuracy	AIM GPS	mm	10 Hz	
Spd	<input checked="" type="checkbox"/> GPS Speed	Vehicle Spd	AIM GPS	kmh 0.1	10 Hz	
Alt	<input checked="" type="checkbox"/> Altitude	Altitude	AIM GPS	m	10 Hz	
OdD	<input checked="" type="checkbox"/> Odometer	Odometer Total	AIM ODO	km 0.1	1 Hz	
Luma	<input checked="" type="checkbox"/> Luminosity	Brightness	AIM Luminosity	%	1 Hz	

The 'Channel Settings' dialog for Channel01 shows:

- Name: Channel01
- Mode: Analog
- Function: Pressure
- Sensor: AIM 0 to 150 psi (X05PSA00150P18K) (highlighted with a red box)
- Sampling Frequency: 20 Hz
- Unit of Measure: bar
- Display Precision: no decimal place

The right-hand pane lists various sensor options, including 'AIM 0 to 150 psi (X05PSA00150P18K)' which is highlighted in blue.