

AiM Infotech

AiM pressure sensor 0-160 bar  
Race Studio 2 configuration

Release 1.01

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# 1

## Introduction

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Once AiM pressure sensor 0-160 bar is physically connected to one of the device analog channels, it has to be loaded in the related configuration using AiM configuration software. In this datasheet it is loaded using **Race Studio 2** software.

You can proceed in two ways: importing the sensor configuration file, downloading it from the Products – Sensors (car/bike) section of our website [www.aim-sportline.com](http://www.aim-sportline.com), or creating a custom sensor.

## 2 SCF\* file import

To obtain the sensor configuration file, enter the Products – Sensors (cars/bikes) section of the AiM website [www.aim-sportline.com](http://www.aim-sportline.com), and click the link referred to the sensor you own (following image). Once the download is finished, save the file in a PC folder.

PRESSURE SENSORS							
Pressure sensor 0-5 bar	3/8 24	X05PSA00005B38		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-10 bar	M10	X05PSA00010B10		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-100 bar	M10	X05PSA00100B10		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-160 bar	M10	X05PSA00160B10		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-50 PSI	1/8 NPT	X05PSA00050P18		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-150 PSI	1/8 NPT	X05PSA00150P18		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-300 PSI	1/8 NPT	X05PSA00300P18		Datasheet	RS3 conf	RS2 conf	SCF*
Pressure sensor 0-2000 PSI	1/8 NPT	X05PSA02000P18		Datasheet	RS3 conf	RS2 conf	SCF*
VDO pressure sensor 0-5 Bar		X05SNB005		Datasheet	RS3 conf	RS2 conf	
VDO pressure sensor 0-10 Bar		X05SNB000		Datasheet	RS3 conf	RS2 conf	
*Download the sensor configuration file ready to import in RS2							

To import the file in Race Studio 2, making it available in the pressure sensors list, from the Customize Sensors window (1), click Import Sensors (2) and select the saved file.



# 3

## Custom sensor creation

- create a custom sensor pressing "Customize sensor" **(1)**
- select the type of measure (Pressure) and the measure unit (bar) **(2)**
- complete the first two rows of the table on the left as follows **(3)**:

X [mV]	Y [bar]
500	0
4500	160

- press "Compute curve" **(4)**, fill in sensor name - in the example "AiM 0-160 bar (X05PSA00160B10)" – and press "Save sensor" **(5)**; press "Exit" **(6)**

The screenshot shows the 'Customize sensor' dialog box in the RaceStudio 2.56.72 software. The dialog box is divided into several sections:

- Table (3):** A table with columns 'x [mV]', 'y [bar]', and 'Curve Error'. The first two rows are filled with the values 500, 0 and 4500, 160 respectively.
- Type of measure (2):** A dropdown menu set to 'Pressure'.
- Compute Curve (4):** A button to calculate the curve from the data points.
- Graph (5):** A graph showing the computed curve, with the x-axis ranging from 500 to 4500 and the y-axis from 0 to 160.
- Sensor name (5):** A text field containing the name 'AiM 0-160 bar (X05PSA00160B10)'.
- Save sensor (5):** A button to save the custom sensor.
- Exit (6):** A button to exit the dialog box.

The background of the software interface shows a racing car and a speedometer, with various data points and graphs visible.

## 4 Analog channel configuration

To set the sensor in the device configuration:

- enter "Channels" tab
- set the sensor on a channel selecting "AiM 0-160 bar (X05PSA00160B10)" in sensor type column of the desired channel and transmit the configuration to the device.

