

AiM Infotech

0-2000 PSI
0-135 Bar
Pressure sensor

Release 1.01





This datasheet explains how to use a 0-2000 PSI (0-135 Bar) brake pressure sensor.

Its **part number** is: **X05SNP13520**

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Introduction

AiM devices can measure brake pressure with a proper sensor. It needs an accurate installation. This is why we strongly suggest to address to a specialized workshop. Once the sensor installed you have to configure it using AiM Race Studio 2 software freely downloadable from Download Area-> software section of www.aim-sportline.com.

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The kit

Brake pressure kit has been properly designed for $\frac{1}{8}$ " \varnothing tubes and includes the following items:

- one 0-2000 PSI pressure sensor
- 1 "T" junction pipe with M10x1 female thread
- 2 locknuts
- 2 nipples

Please note: extension cable is not included in the kit.

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Installation

When installing the sensor ensure to select a channel that has a +Vb output on your AiM device or harness. To say:

- EVO4: all channels from 1 to 5
- MXL Strada: channels from 4 to 8 if you are using an AiM optional harness – part number **V02.554.20**
- MXL Pista: channels from 4 to 8 if you are using an AiM standard harness – part number **V02.554.20**
- MXL Pro05: channels from 8 to 11 if you are using an AiM optional harness – part number **V02.554.02**
- MyChron Expansion: all channels from 1 to 4
- Channel Expansion: all channels from 1 to 4

To install the sensor follow these steps.

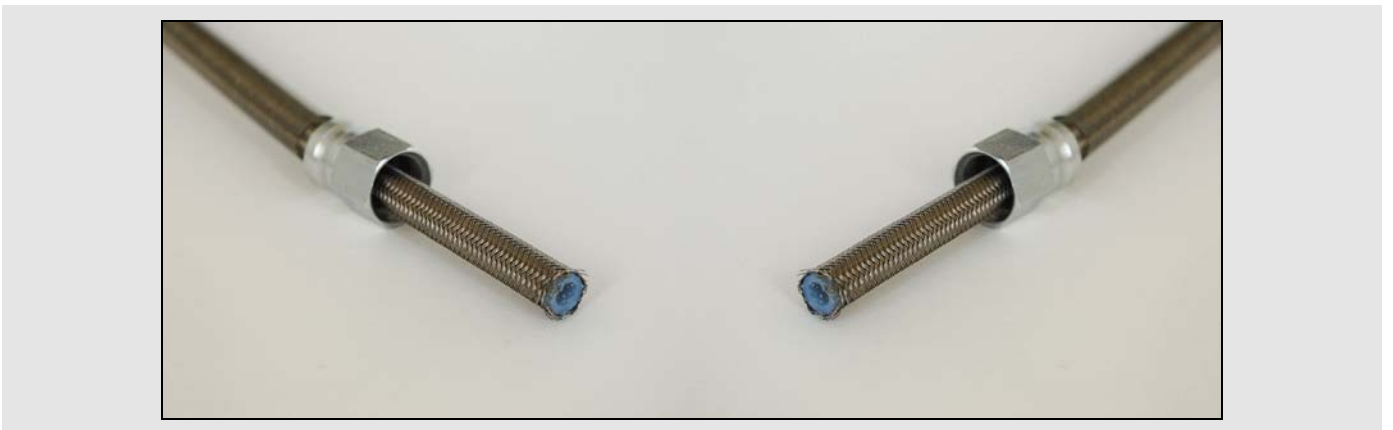
Choose the point of the braking plant – shown below – where to install the sensor.



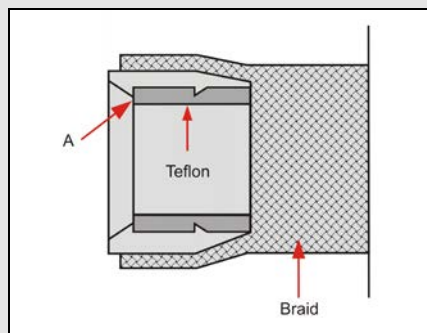
Cut the tube using a tube cutter for brake tubes as the one shown here below if available. If not you can also use a fine toothed hacksaw wrapping the cutting point with a tape.



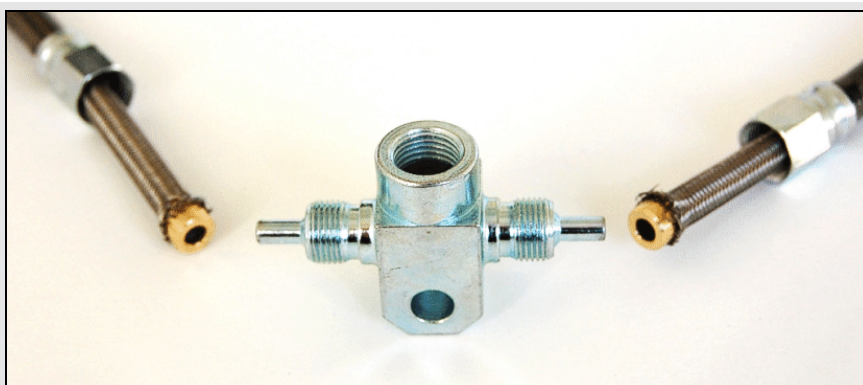
Insert the two locknuts in the cut part of the pipe as shown here below. If the plastic cover of the metal braid does not allow the locknut to slip peel the pipe.



With reference to the images here below: insert the nipples under the metal braid pulling them until the complete contact of the tube interior (labelled "A" in the bottom drawing) and cover them with the metal braid. Lubricate the threads.



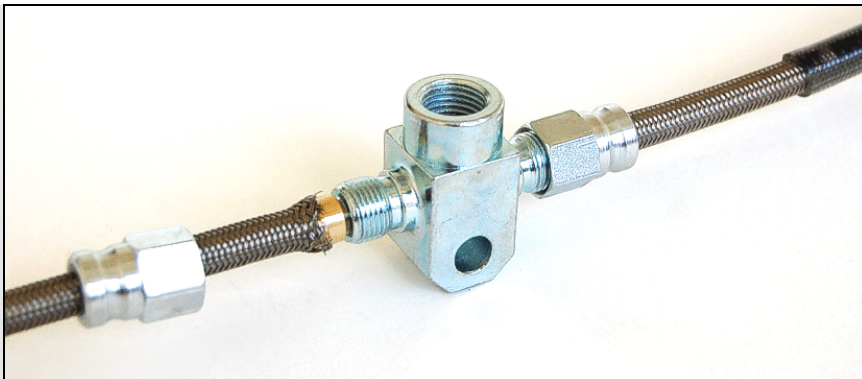
Decide the exact position of the "T" junction pipe making a reference mark. The pipe position will determine the sensor position



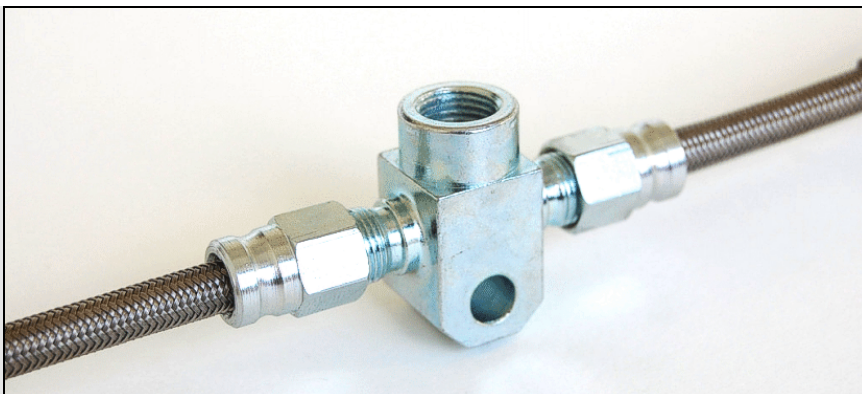
Tighten to 0,8 Kg (8Nm)



Tighten the threads a quarter turn at a time until the right position is reached; **be careful not to exceed 1,5 Kg (15 Nm).**



Repeat this operation on both sides of the junction.



Wrap the sensor thread with Teflon to improve its tightness and install the sensor on the junction. Here below you see a 0-2000 PSI (0-135 Bar) sensor correctly installed.



Warning: once the sensor installation has been completed ensure that the braking circuit is cleared and check its tightness.

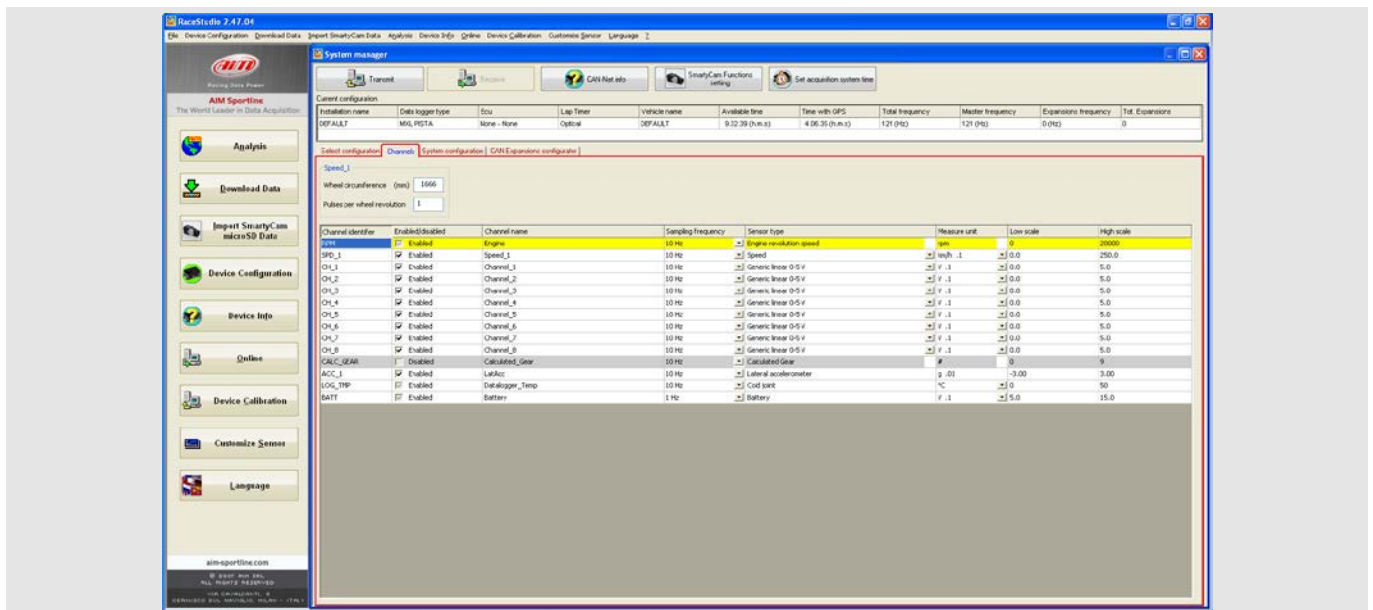
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Sensor configuration for AiM devices

To make AiM devices sampling information supplied by the sensor it is necessary to physically connect the sensor to a channel, set in Race Studio 2 configuration software the channel this sensor is connected to and transmit the configuration to the system.

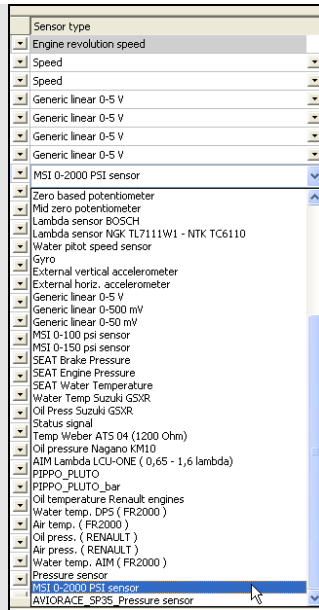
The procedure to perform is:

- open Race Studio 2 software;
- select the device you are using;
- select the configuration you want to set the sensor on or create a new one pressing “New”;
- select “Channels” layer shown here below;





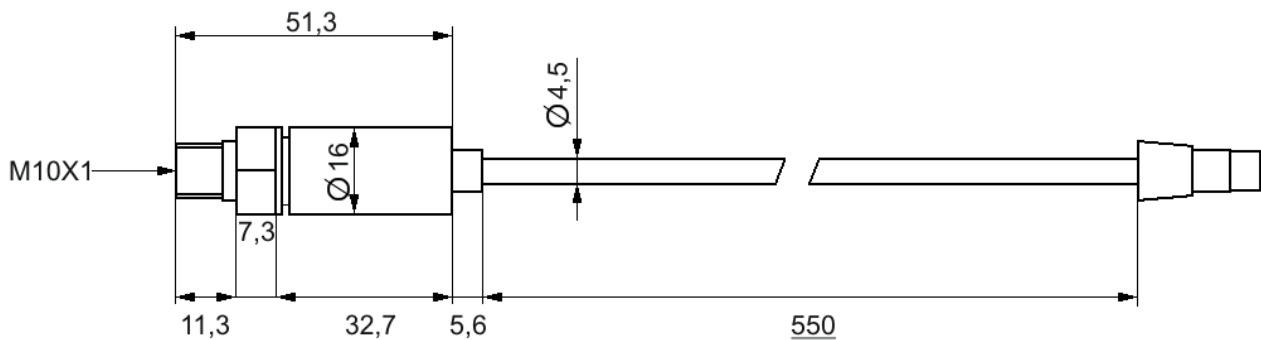
- set this sensor – labelled “MSI 0-2000 PSI sensor” – selecting it in “Sensor Type” column shown below and press “Transmit” button on top of the window.



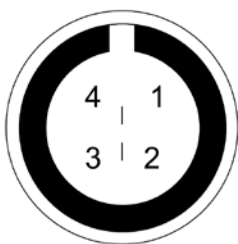
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Dimensions, pinout and technical characteristics

The drawing here below shows sensor dimensions in millimeters.



The sensor ends with a 4 pins Binder 719 male connector. The image here below shows the connector from solder termination view and its pinout.



Binder connector pin	Function	Cable Colour
1	Pressure signal 1-5V	White
2	GND	Black
3	Power 10-30V	Red
4	Not connected	-

0-2000 PSI pressure sensor technical features:

- measure range: 0-2000 PSI (0-135 Bar)
- output signal: 1-5 V
- power: 10-30 V
- consumption: 4mA
- installation thread M10x1

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Extension cables

The sensor is sold with a 60 cm cable and standard lengths extension cables are available as optional: 0,5 m, 1m e 1,5 m; it is also possible to ask for specific length extension cables.

Extension cables part numbers change according to their length and to the device the sensor is to be connected to.

Extension cable for connection with:

- Channel Expansion
- MyChron Expansion
- EVO4.

Part numbers:

- V02PCB05BTXG** – cable length: 500mm
- V02PCB10BTXG** – cable length: 1000mm
- V02PCB15BTXG** – cable length: 1500mm
- V02PCB20BTXG** – cable length: 2000mm
- V02PCB25BTXG** – cable length: 2500mm
- V02PCB30BTXG** – cable length: 3000mm

Extension cable for connection with:

- MXL Strada
- MXL Pista
- MXL Pro05

Part numbers:

- V02PCB05B** – cable length: 500mm
- V02PCB10B** – cable length: 1000mm
- V02PCB15B** – cable length: 1500mm
- V02PCB20B** – cable length: 2000mm
- V02PCB25B** – cable length: 2500mm
- V02PCB30B** – cable length: 3000mm

