Figure 1: Exhaust gas thermocouple (side view)

Introduction

Aim instruments can measure and record the exhaust gas temperature using a sensor (thermocouple) positioned inside the exhaust header pipe.
All Aim thermocouples.are **K-type** sensors.

Installation notes

The exhaust gas temperature sensor should be positioned inside the exhaust header pipe at a distance of 150 mm (5.9 inches) from the exhaust port. In the drawing here below is represented a correct installation of the sensor.
To install the EGT thermocouple, please follow these instructions:
1. Make a 5 mm (0.2 inches) hole inside the exhaust header pipe at a distance of 150 mm (5.9 inches) from the exhaust port.
2. Weld the little nut to the place where the hole has been drilled.
3. Connect the remaining part of the thermocouple and fix it to the exhaust header.

ATTENTION: While running the thermocouple cable along the chassis, be careful to keep it as far as possible from other cables (such as RPM or lap receiver cables) so to minimize interference between cables.
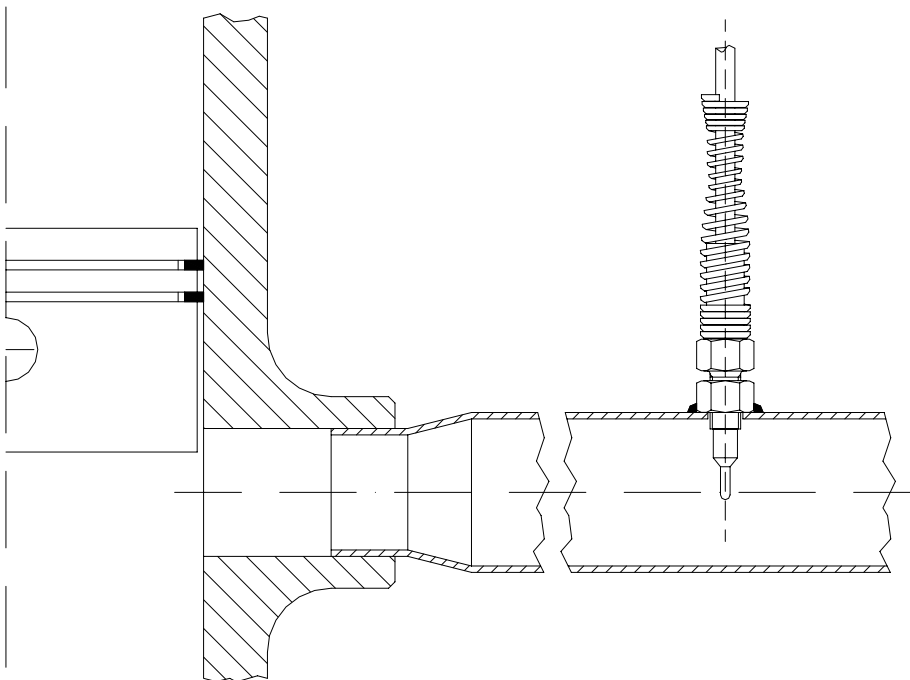
For a correct installation, please see **Figure 2**:

Figure 2: Exhaust gas thermocouple installation

Software

Once the thermocouple has been installed, it has to be configurated. To correctly configure the sensor, please use **Race Studio 2**, the software properly developed by Aim to configure its instruments and analyze stored data.

Race Studio 2

In **Race Studio 2** main window, reported here below, it is possible to choose your Aim instrument. Once selected your gauge, please press *"System Manager"* button.
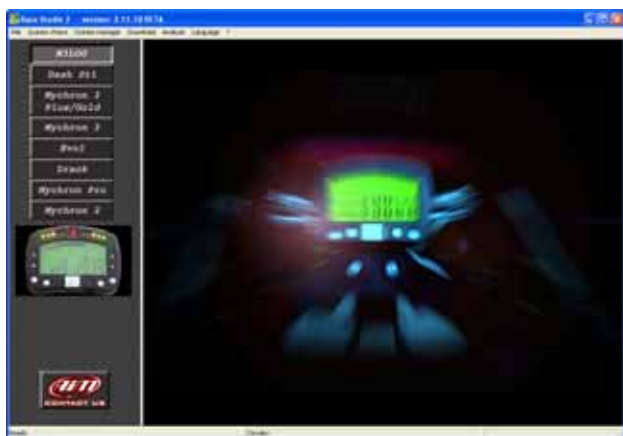
Please remember that **MyChron 3 Basic** automatically recognizes the sensor and needs no temperature sensor configuration.

Sensor configuration

Once reached *"System Manager"* main window, please press *"Channels"* button to configure the sensor you have installed on your vehicle. The following screenshot appears.
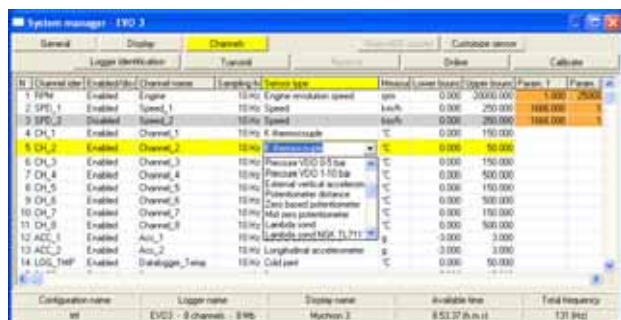
To configure the sensor, please double-click in the box corresponding to "Sensor type" column and "Ch_x" row (where x represents the channel number where you wish to install the sensor): a pop up menu like the one reported in the previous screenshot appears.

Please, select "K Thermocouple" sensor.

Once selected the correct thermocouple type, it is necessary to configure the visualization's lower and upper boundary values.

To set these values, please double-click in the row corresponding to the channel where you have installed the thermocouple and in the columns corresponding to the lower and upper boundaries and fill the boxes with the correct temperature value.
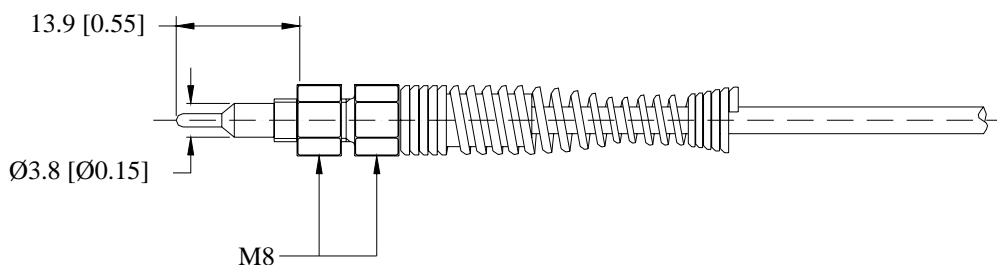
Please remember that K-type thermocouples needs no calibration.

Transmitting the configuration

Once the sensor has been correctly configured, please transmit the configuration to your gauge pressing *"Transmit"* button.

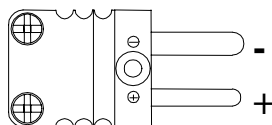**During transmission it is recommended not to switch off the gauge.**

Dimensions

13.9 [0.55]

Ø3.8 [Ø0.15]

M8

Connectors details

Pin	Function
+	Temperature signal 0-50 mV
-	GND

Male Mignon connector: top-side view

Technical characteristics

Description	Value
Temperature range	From 0° to 1000°C [32° to 1832°F]
Cable length	250 mm [9.8"]
Cable type	Compensated

Note 1: the EGT thermocouple is supplied with a 250 mm long compensated cable ending with a male Mignon connector.

Note 2: extension cables are available in standard lengths (0.5, 1, 1.5 metres) and, on request, in specified lengths.