Figure 1: water thermocouple – M5 thread (side view)

Introduction

Aim instruments can measure and record the water temperature using a sensor (thermocouple) positioned in the pipe from radiator to cylinder.
All Aim thermocouples.are **K-type** sensors.

Installation notes

The water temperature sensor should be positioned inside the pipe which connects the cylinder and the radiator.
To install the water thermocouple it is necessary to cut the water pipe and use the proper inline water fitting: please connect the inline water fitting with the water pipe using two wiring wraps.
Once connected the fitting with the pipe, you can screw the water thermocouple inside the M5 hole.

ATTENTION: While running the thermocouple cable along the chassis, please 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.

Aim suggests employment of our connection in sensor's installation.

Inline water fitting (optional)

In the following drawing is represented the inline water fitting (optional), used to place the water thermocouple inside the pipe that goes from the radiator to the cylinder.
In order to firmly connect the fitting to the water pipe, Aim suggests to use two wiring wraps.
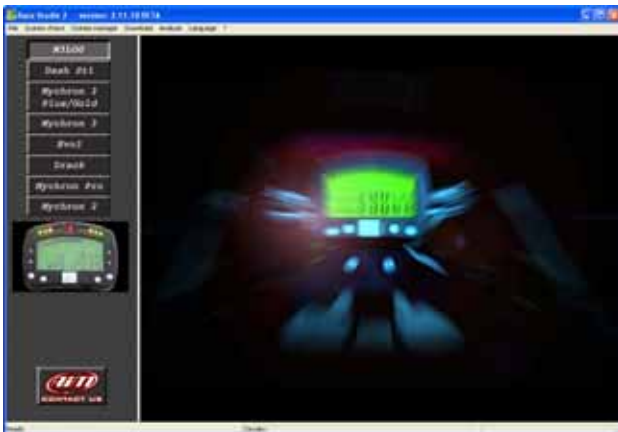

Dimensions in millimetres [inches]
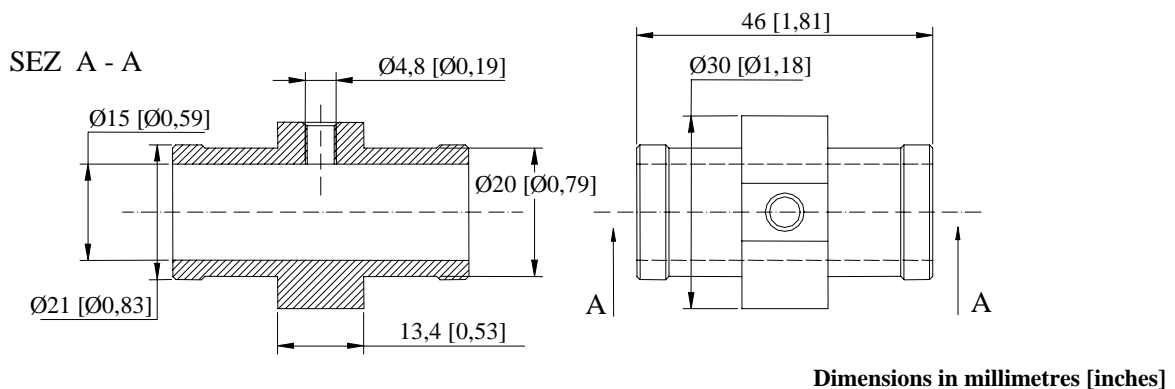
Figure 2: Inline water fitting drawing

Once the thermocouple has been installed, it needs to be configured. 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, you can choose your Aim instrument. Once selected your gauge, please press *"System manager"* button.

Please note: **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.
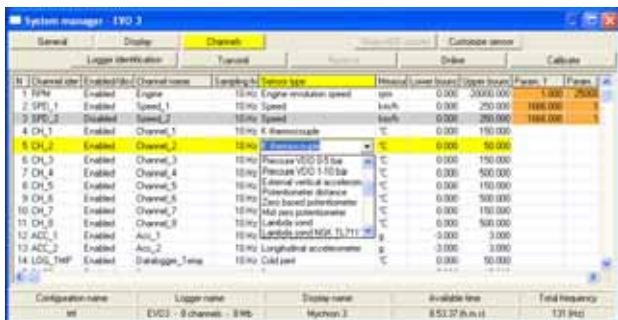
To configure the sensor, please double-click in the box corresponding to "Sensor type" column and to "Ch_x" row (where x represents the channel number where you wish to install the sensor): a pop up menu like the one reported in the previous screenshot appears.

Please, select "K Thermocouple" sensor.

Once the correct thermocouple type selected, 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 values.

Please remember: K-type thermocouple needs no calibration.
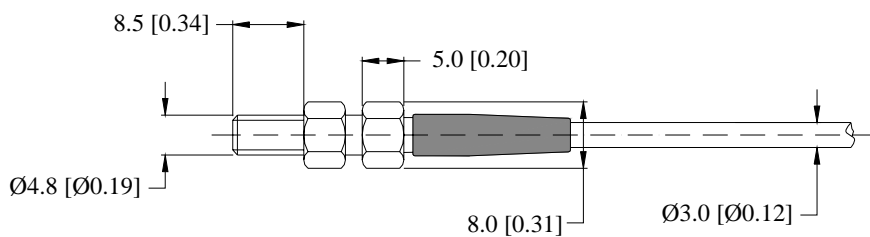
Transmitting the configuration

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

8.5 [0.34]

5.0 [0.20]

Ø4.8 [Ø0.19]

8.0 [0.31]

Ø3.0 [Ø0.12]

Dimensions in millimeters [inches]

Connectors details

Pin	Function
+	Temperature signal 0-50 mV
-	GND
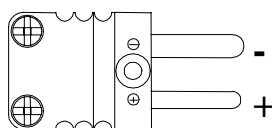
Male Mignon connector: top-side view

Technical characteristics

Description	Value
Temperature range	From 0° to 150°C [32° to 302°F]
Cable length	250 mm [9.8"]
Cable type	Compensated

Note 1: the water 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 specific lengths..