

SENSOR DOCUMENTATION	6/07/2004	TEMPERATURE	Water thermocouple M10 thread
Notes: Water thermocouple – M10 thread technical documentation, dimensions and pinout. – Version 1.01			

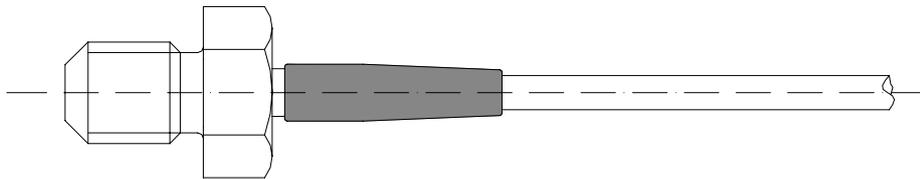


Figure 1: water thermocouple – M10 thread – Rotax engines (side view)

Introduction

Aim instruments can measure and record the water temperature using a sensor (thermocouple) positioned inside the cylinder head. In particular this sensor has been designed for **Rotax** water cooled engines.

All Aim thermocouples are **K-type** sensors.

Installation notes

The water temperature sensor should be positioned inside the cylinder head: this sensor may be used only with engines which accommodate the thermocouple.

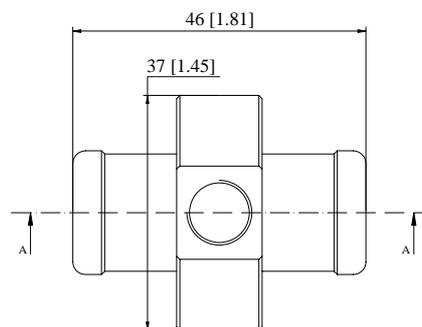
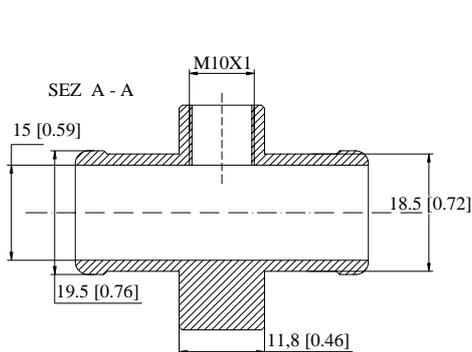
To install the water thermocouple You just need to place it inside the screwed hole located in the cylinder head.

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) in order to minimize interference between them.

Inline water fitting (optional)

In the following drawing is represented the inline water fitting (optional), which is 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 You to use two wiring wraps.



Dimensions in millimetres [inches]

Figure 2: Inline water fitting

Software

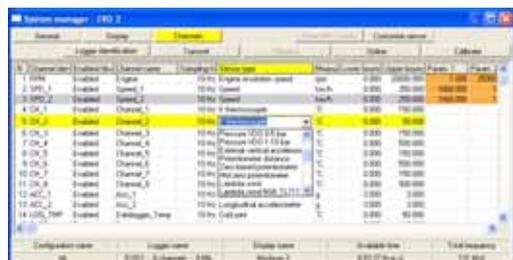
Once the thermocouple has been installed, it needs to be configured. To correctly configure the sensor, please use **Race Studio 2**, a software properly developed by Aim to configure your data logger and to analyze stored data.

In **Race Studio 2** main window 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 that you have installed on your vehicle. The following screenshot appears.



To configure the sensor You have to 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 menu like the one reported in the previous screenshot appears.

Please, select “K Thermocouple” sensor.

Once selected the correct thermocouple type, visualization lower and upper boundary values need to be configured.

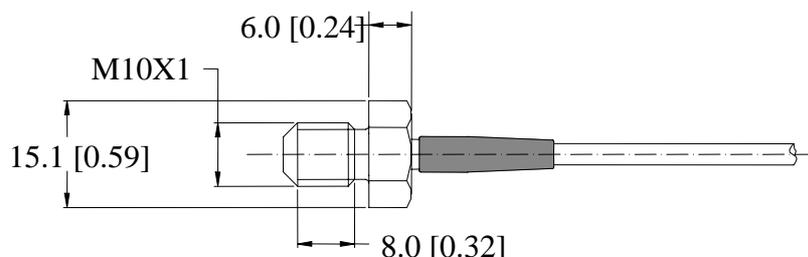
To set these values, please double-click in the row corresponding to the channel where you have installed the thermocouple and in the columns corresponding to the lower and upper boundary and fill the boxes with the correct temperature value.

Please remember that K-type thermocouples does not need to be calibrated.

Transmitting the configuration

When the sensor has been correctly configured, please transmit the configuration to your gauge pressing “*Transmit*” button. **During transmission, please do not switch off the gauge.**

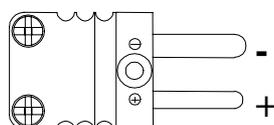
Dimensions



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 type	Compensated

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