

SENSOR DOCUMENTATION	25/01/2005	TEMPERATURE	Water thermoresistor "M5 thread"
Notes: Water Thermoresistor – M5 thread tech. documentation, dimensions and pinout. – Version 1.01			

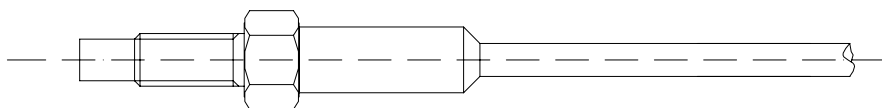


Figure 1: water thermoresistor – M5 thread (side view)

Introduction

Aim instruments can measure and record the water temperature using a sensor (thermoresistor) positioned in the pipe from radiator to cylinder.

Installation notes

The water temperature sensor should be positioned inside the pipe which connects the cylinder to the radiator.

To install the water thermoresistor 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 thermoresistor inside the M5 hole.

ATTENTION: While running the thermoresistor 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.

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 thermoresistor inside the pipe which 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.

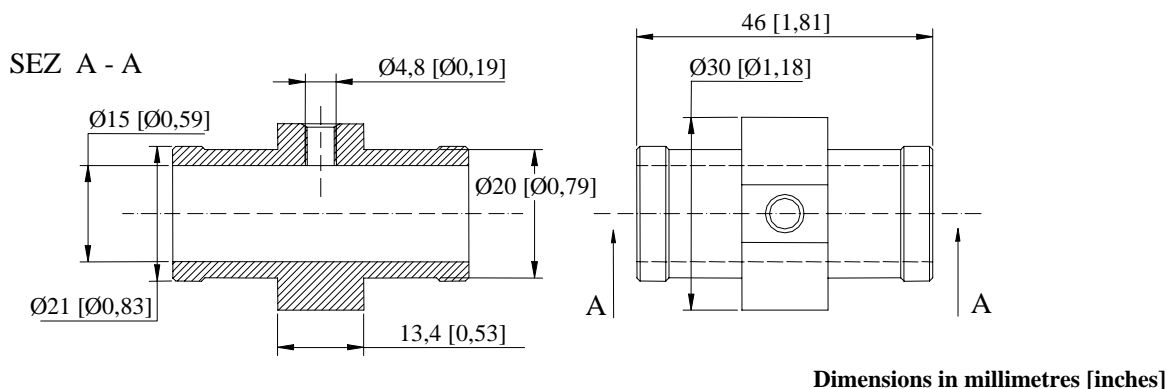


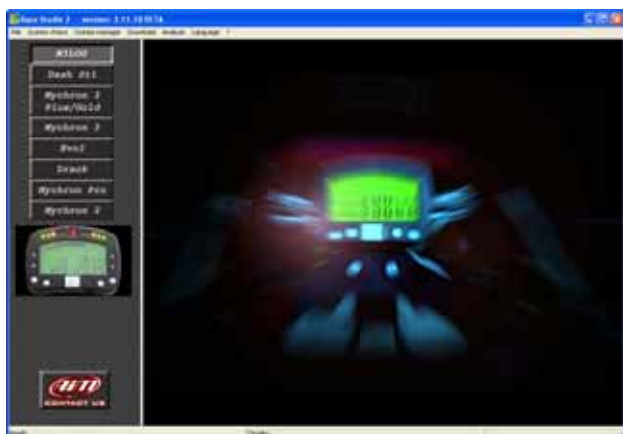
Figure 2: Inline water fitting drawing

Software

Once the thermoresistor 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

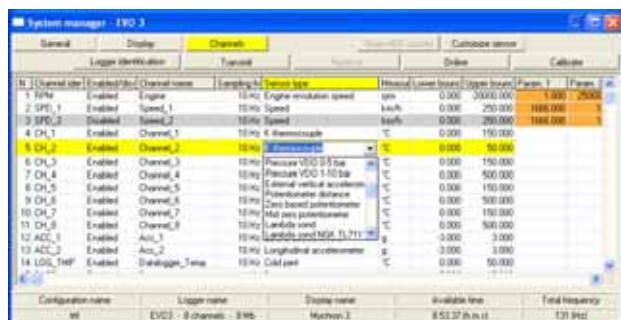
In **Race Studio 2** main window, reported here below, you can choose your Aim instrument. Once selected your gauge, please press “System manager” button.



Please remember: **MyChron 3 Basic** automatically recognizes the sensor and needs no temperature sensor configuration.

Sensor configuration

Once reached “Logger 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 to 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 “Thermoresistor PT100” sensor.

Once selected the thermoresistor sensor, it is necessary to configure 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 thermoresistor and in the columns corresponding to the lower and upper boundaries and fill the boxes with the correct temperature value.

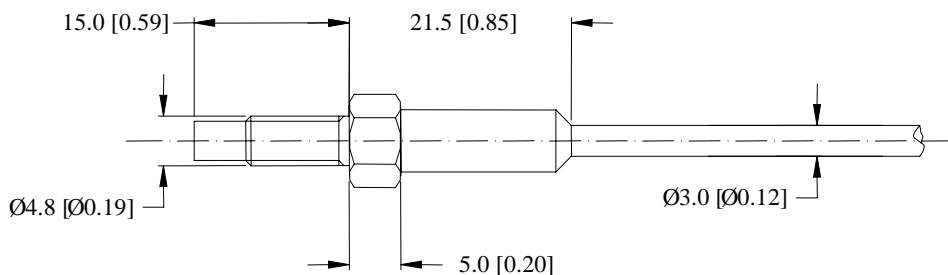
Please remember that PT100 Thermoresistor needs no calibration.

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.

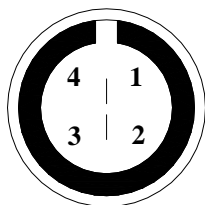
Dimensions



Dimensions in millimeters [inches]

Pinout PT100 – MyChron 3 Kart

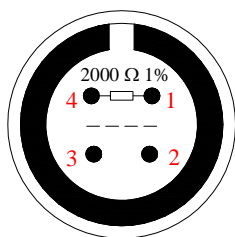
Pin	Function	Pin	Function
1	+ Temp. signal	3	Not connected
2	GND	4	Not connected



4 pins Binder 719 male connector: solder termination view

Pinout PT100 – MyChron 3 Car/Bike & Dash ST1

Pin	Function	Pin	Function
1	+ Temp. signal	3	Not connected
2	GND	4	Not connected



4 pins Binder 719 male connector: solder termination view

Note: the PT100 thermoresistor for MyChron 3 Car/Bike/XG and Dash ST1 is equipped with a 2 kΩ 1% resistor between pins number 1 and 4.

Technical characteristics

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

Note 1: the water thermoresistor is supplied with a 250 mm long cable ending with a 4 pins male Binder 719 connector.

Note 2: extension cables are available in standard lengths and, on request, in specific lengths.