AiM Infotech

Cylinder head Thermoresistor technical documentation, dimensions and pinout

Release 1.00

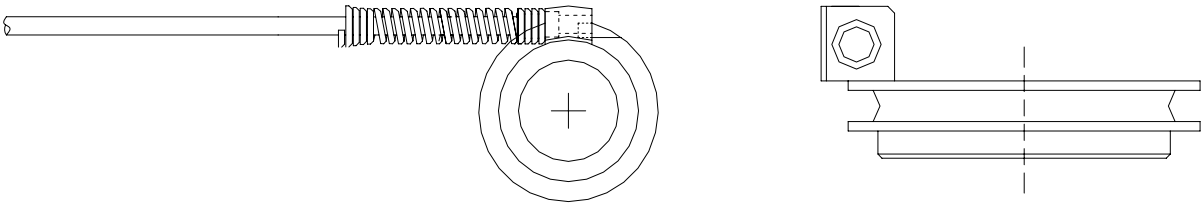


Figure 1: Cylinder head Thermoresistor (top and side view)

Introduction

Aim instruments can measure and record cylinder head temperature using a sensor (Thermoresistor) positioned under the spark plug.
All Aim Thermoresistor are **PT100** type sensors.

Installation notes

The head temperature sensor sits between the spark plug and the cylinder head. To keep the sensor in contact with the cylinder head, it is necessary to remove the washer from the plug when installing the Thermoresistor.
While running the Thermoresistor cable along the chassis please, be careful to keep it as far as possible from RPM cable in order to minimize interferences between the cables.

ATTENTION: Before screwing back the spark inside the cylinder head, ensure that the sensor is firmly mated with the cylinder head and, when tightening and loosening the spark, minimize movement of the sensor. Failure to observe this precaution may result in damage to the sensor

For a correct installation, please watch **Figure 2**:

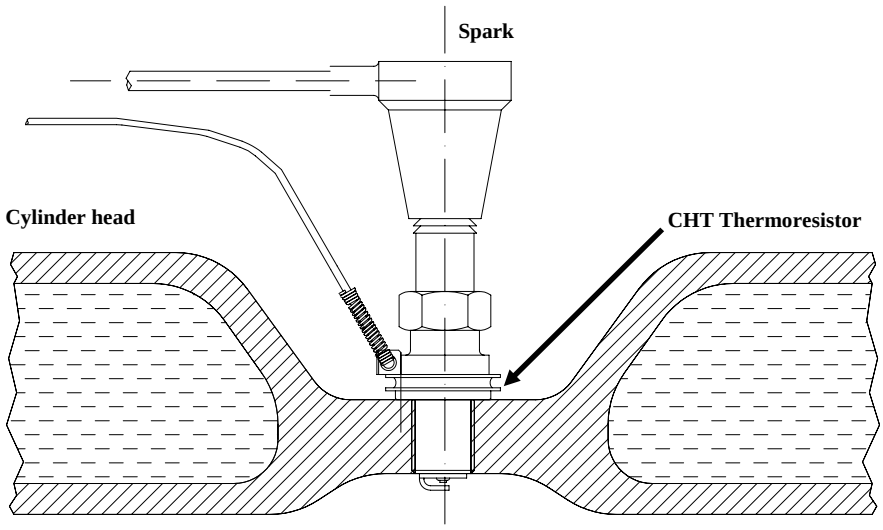


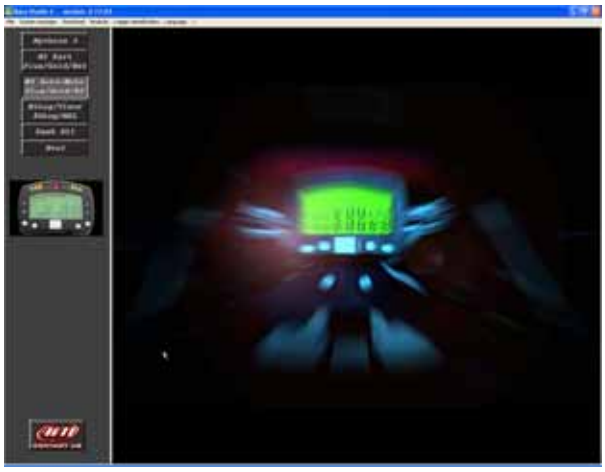
Figure 2: Cylinder head Thermoresistor installation

Software

Once the Thermoresistor has been installed, it is necessary to configure your instrument. In order 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

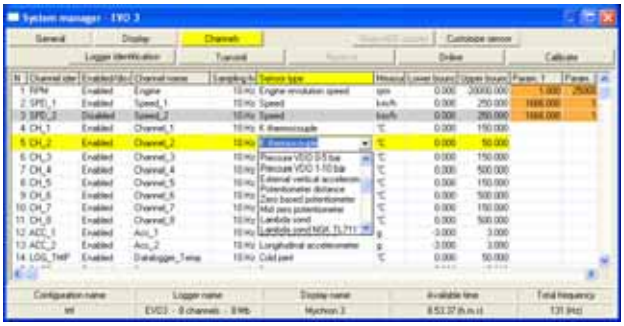
In **Race Studio 2** main window, reported here below, is possible to choose your Aim instrument. Once selected your gauge, please press *"System manager"* button.



Please note: **MyChron 3 Basic**, **MyChron 3 Basic 2T** and **MyChron 3 Plus / Gold Kart** automatically recognize the sensor and need 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 is necessary 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 menu like the one reported in the previous screenshot appears.

Please, select "Thermo resistance PT100" sensor.

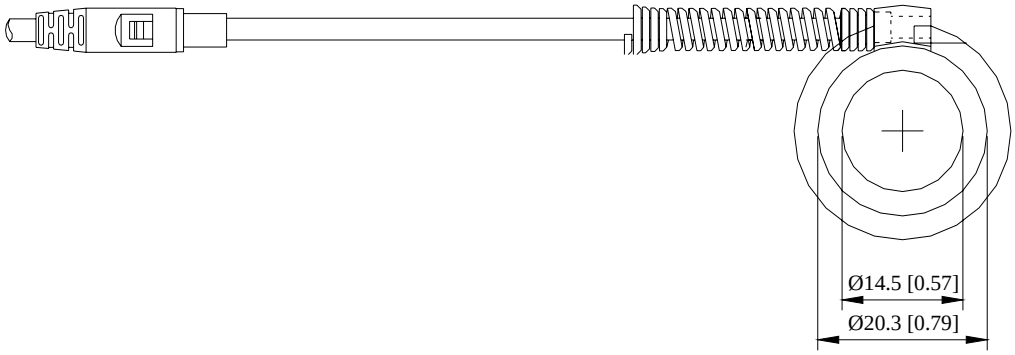
PT100 Thermoresistor does not need to be calibrated.

Transmitting the configuration

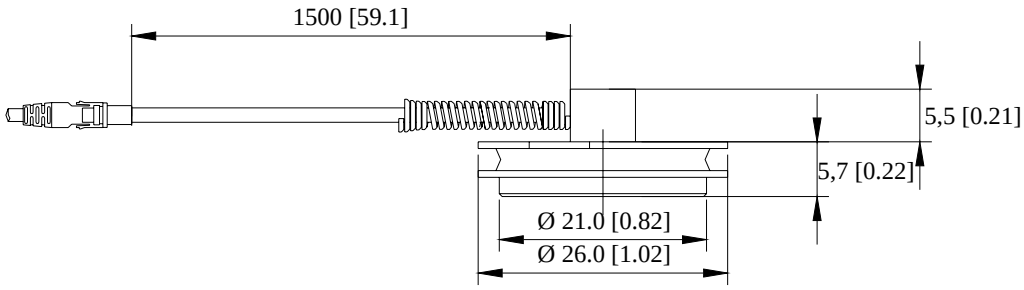
Once the sensor has been correctly configured, please transmit the configuration to your gauge pressing "Transmit" button.

During transmission, please do not switch the gauge off.

Dimensions



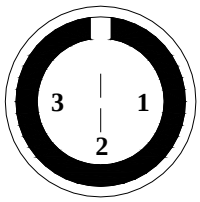
Thermoresistor CHT (top view) – **Dimensions in millimetres [inches]**



Thermoresistor CHT (front view) - **Dimensions in millimetres [inches]**

Connector details

Pin	Function
1	Not connected
2	GND
3	Temperature signal



3 pins male Binder 712 connectors pinout: solder termination view

Technical characteristics

Description	Value
Temperature range	From 0° to 150°C [32° to 302°F]
Cable length	1500 mm [59.1”]
Cable type	Co-axial

Note 1: CHT Thermoresistor is supplied with a 1500 mm long co-axial cable