# AiM Infotech

# M10 water temperature thermocouple

# Release 1.03

AiM

# 1
# Introduction

AiM devices can measure the water temperature using a sensor – thermocouple – placed in the cooling system.
This thermocouple part number is: **X05TCM10A4515MS**

All AiM thermocouples are K type sensor.

# 2
# Installation notes

The thermocouple has to be placed in the cooling system.
We suggest to install the sensor far from heat and electromagnetic interference sources (like RPM cable or lap receiver cables).

To install the sensor use the optional M10 thread inline water fitting (part number **LAA54120R**) shown below:
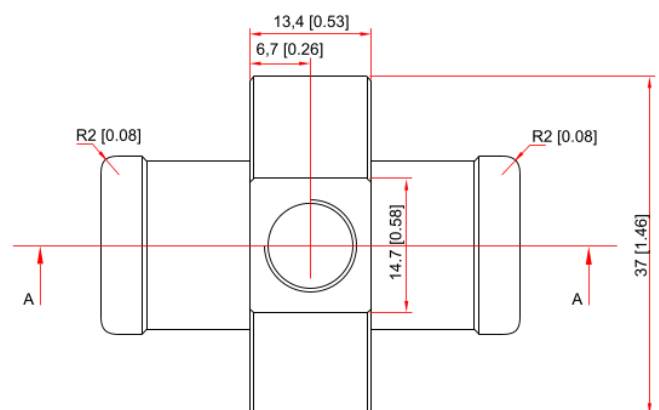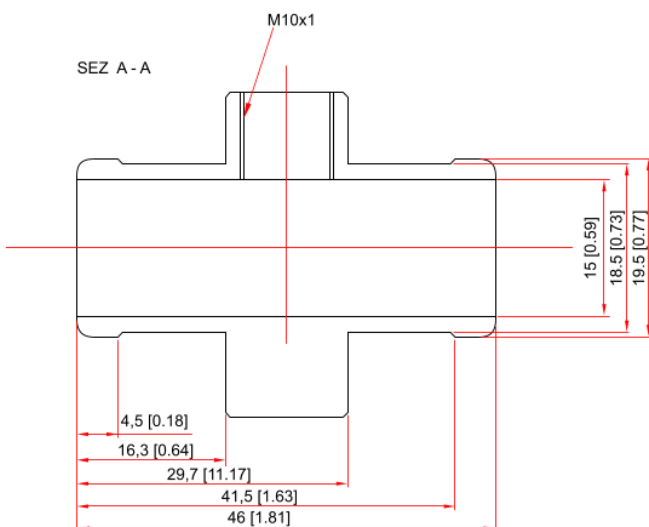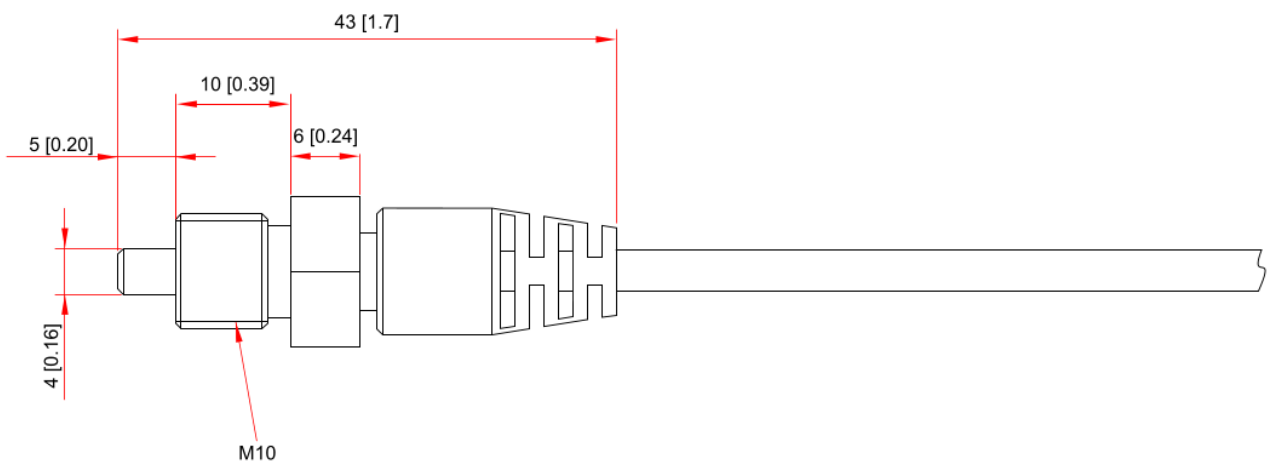- cut the water pipe
- connect the inline water fitting to the pipe using two metal wraps
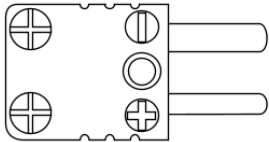- screw the thermocouple in the thread hole

# 3
# Dimensions, pinout and technical characteristics

The drawings below show the thermocouple dimensions on top and the optional water fitting dimensions on bottom in mm [inches].

The thermocouple is cabled with a 2 pins male Mignon connector. The image below shows the connector on the left and the connection table on the right.

| Mignon connector pin | Function |
|---|---|
| + | Temperature signal 0-50 mV |
| - | GND |

The water temperature thermocouple **technical characteristics** are:

- Temperature working range:      0-150°C [32-302°F]
- Cable type                 compensated

# 4
# Extension cables

Water temperature thermocouple is sold with a 30cm cable. Standard length extension cables are available as optional; specific length extension cables are also available. Extension cables part numbers changes according to their length, the ending connector and the device they are to be connected to.

Extension cable for:
- MyChron5
- TC Hub

Part number:
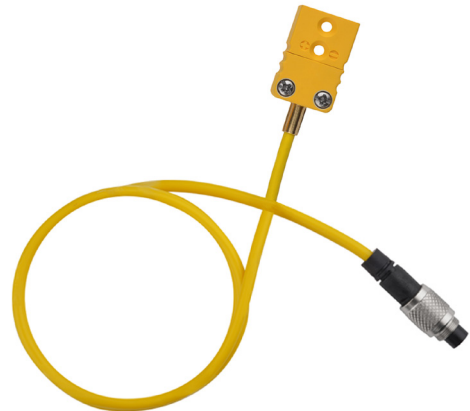**V03CCB05M** – cable length: 50 cm
**V03CCB10M** – cable length: 100 cm
**V03CCB15M** – cable length: 150 cm
**V03CCB20M** – cable length: 200 cm…
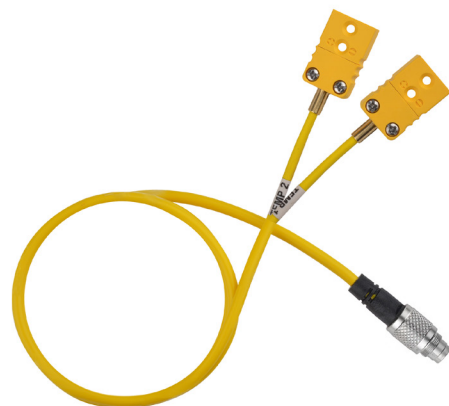up to
**V03CCB60M** – cable length: 600 cm

Extension cable for:
- MyChron5 2T – for wiring with two thermocouples.

Part number:
**V02.557.070**

Extension cable for:
- MyChron5 2T – for wiring with a thermocouple + a thermo resistor.

Part number:
**V02.557.110**

Extension for connection – through dedicated harness* – to:
- MXG/MXS
- MXL2
- MXL Strada/Pista/Pro05

Part numbers:
**V02CCM05M** – cable length: 50 cm
**V02CCM10M** – cable length: 100 cm
**V02CCM15M** – cable length: 150 cm
**V02CCM20M** – cable length: 200 cm…
up to
**V02CCM45M** – cable length: 450 cm

\***Please note**: to connect the thermocouples to these AiM devices you need its dedicated harnesses:

- **V02573080**: MXL2/MXG/MXS harness for 22 pins connector with 1 thermocouple
- **V02573160**: MXL2/MXG/MXS harness for 22 pins connector with 2 thermocouples
- **V02573040**: MXL2/MXG/MXS harness for 37 pins connector with 1 thermocouple
- **V02573050**: MXL2/MXG/MXS harness for 37 pins connector with 2 thermocouples
- **V02586040**: EVO5 harness for 37 pins connector with 1 thermocouple
- **V02586050**: EVO5 harness for 37 pins connector with 2 thermocouples
- **V02554080**: MXL Strada/Pista harness with 1 thermocouple
- **V02554150**: MXL Strada/Pista harness with 2 thermocouples
- **V02554210**: MXL Pro05 harness for 37 pins connector with 2thermocouples.

**Mandatory** extension cable for:
- EVO4
- EVO4S

Part number:
**V02PCB10MXG** – cable length: 50 cm
**V02PCB15MXG** – cable length: 100 cm
**V02PCB20MXG** – cable length: 150 cm
**V02PCB25MXG** – cable length: 200 cm...
up to
**V02PCB60MXG** – cable length: 600 cm