TORO®

Tempus Air MS
1-4 Sensor Inputs

Tempus Air MS

*Multi Sensor module
1-4 Inputs*

LoRa™

INTRODUCTION

Tempus Air MS is a battery powered Bluetooth® / LoRa™, Multi Sensor module. This module allows the acquisition of measurements from sensors of temperature, humidity, flow, wind speed. Tempus Air MS transmits data via LoRa connection to a Tempus Air BS/BR/BW gateway. Tempus Air MS available in two models: S4 with 4 inputs (3 sensor inputs and 1 temperature input) and S1 with 1 input (1 sensor input).

SPECIFICATION

DIMENSIONS
Width: 10,5 cm
Height: 4,8 cm
Depth: 11,6 cm

FEATURES
Bluetooth® Smart 4.0 Low Energy
LoRa™ radio communication
Permament programming memory

POWER SUPPLY
9V 6AM6 ou 6LR61 Alkaline battery

INSTALLATION
1 (S1) or 3 (S4) configurable inputs to choose from:
• Dry contact (rain sensor, wind sensor, ...)
• Pulse (flowmeter, wind sensor, ...)
• Analog (0-3.5V) (moisture sensor, tensiometer, ...)
1 (S4 only) temperature acquisition input (type Pt100)
Operating temperature: from -20°C to 60°C

Step 1

APP DOWNLOAD

1. On your smartphone or tablet, go to the «App Store» or to the «Play Store» app

2. Search for «The Toro Company» in the search bar

Developer
The Toro Company

3. Once found, download the MyToroTempus App

4. Once installed, activate the Bluetooth® of your smartphone or tablet

CREATE AN ACCOUNT

To use Tempus Air BS / CT / MS, you need to create your MyToroTempus account.

1. Launch MyToroTempus app from your smartphone and/or tablet

2. Go to «My account» by typing on icon ⚙

3. Follow the steps described on the app

Note: if you already have an account on the MyToroTempus.com platform, you must use the same credentials

Step 2

ASSOCIATION

1. Unscrew the Tempus Air MS 's cap

2. Plug the 9V 6LR61 ou 6AM6 battery and screw the cap

3. Sign in with your MyToroTempus account

4. Launch Tempus Air app from your smartphone and/or tablet.

5. Click on the «Add a module» button or on the «+» button

6. Choose the Tempus Air MS from the availabe modules list.

7. To finish your Tempus Air MS pairing, follow the next steps described in the app.

Note: To identify your Tempus Air MS among the nearby modules, please refer to the «Default name» present on the product label.

Security key: The security key allows to protect your module. You can define it during the step 7 of the ASSOCIATION» or access to further information by clicking on the icon ✎ at the top right of your screen.

Step 3

PAIRING With Tempus Air BS - BR- BW

To optimize the LoRa™ radio connection between the Tempus Air BS/BR/BW and the Tempus Air MS module, we advise to install the Tempus Air MS under 800 meters to the Tempus Air BS/BR/BW. We also advise to associate all your Tempus Air module near the Tempus Air BS/BR/BW before installing them.

1. On the MyToroTempus mobile App, select your Tempus Air BS/BR/BW, and enter pairing mode on the information screen. (You must be connected via Bluetooth)

2. Select the Tempus Air MS module previously installed.

3. Click on the top right icon ✎ to access to the product's informations.

4. Click on «Remote Access».

5. Select the Tempus Air BS/BR/BW you want to pair the module with.

6. Click on the button «Send» ➤ on the bottom of your screen to validate.

Once the pairing finished, you can test the connection between your Tempus Air BS/BR/BW and your Tempus Air MS

7. Go back to «Remote access» screen.

8. Click on the button 🛜 to start the test.

Note:

– The message «Connection established» means that the connection is reliable.

– The message «No connection established» means that it is necessary to bring the Tempus Air MS closer to the Tempus Air BS/BR/BW or viceversa.
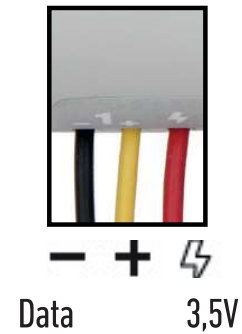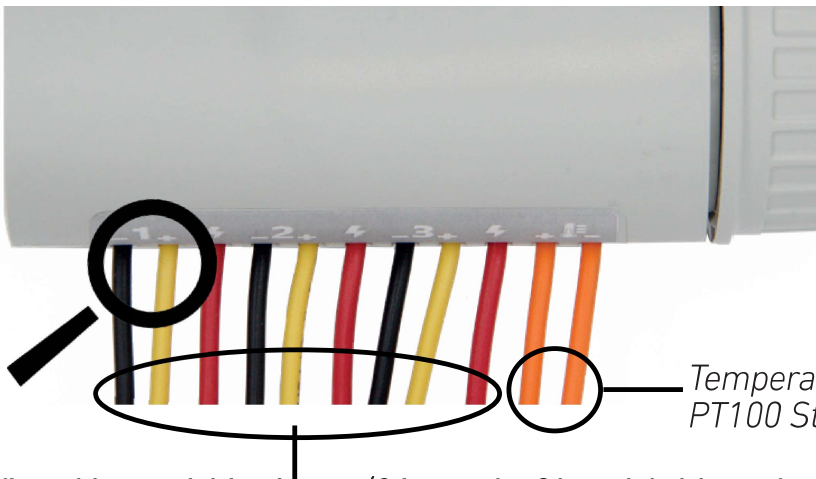
Step 4

SENSOR INSTALLATION

To ease the sensor installation we advise to follow the MyToroTempus mobile application instruction.

1. Get closer than 10 meters from Tempus Air MS and make sure your smartphone's Bluetooth is turned on.

2. Launch MyToroTempus app from your smartphone or tablet.

3. Select the Tempus Air MS previously installed. (The two devices, smartphone and MS module, must be connected via Bluetooth)

4. Click on "Add a sensor"

5. Select the type of sensor you want connect to your Tempus Air MS.

6. Select the sensor you want connect to your Tempus Air MS.

7. To properly connect the wiring and complete the sensor installation, follow the next steps described in the app.

WIRING

Data   3,5V

Temperature sensor input.
PT100 Standard (not present in S1 model)

Configurable acquisition inputs (3 inputs for S4 model, 1 input for S1 model)
• Dry contact (rain sensor, anemometer, ...)
• Pulsive (flowmeter, ...)
• Analog 0-3.5V (humidity sensor, solar radiation...)

Red wires: 3.5V power supply

Note: the Tempus Air S1 have only 1 Configurable acquisition input (three-wire entry) and it doesn't have temperature sensor input (two-wire entry)

Configurable sensor inputs (3 for S4, 1 for S1)
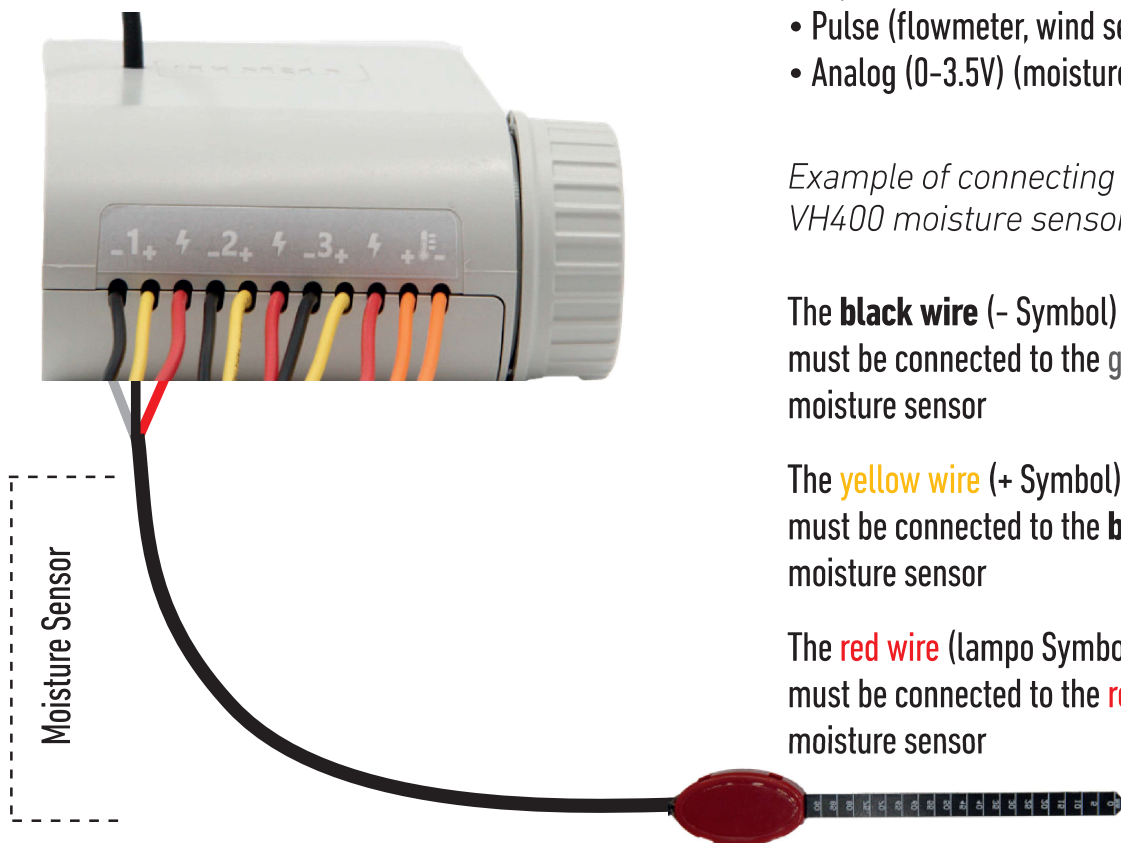
Types of sensors that can be connected:
• Dry contact (rain sensor, wind sensor, ...)
• Pulse (flowmeter, wind sensor, ...)
• Analog (0–3.5V) (moisture sensor, solar radiation ...)

Example of connecting an analog input sensor: VH400 moisture sensor

The **black wire** (– Symbol) of your Tempus Air MS must be connected to the gray wire of the VH400 moisture sensor

The yellow wire (+ Symbol) of your Tempus Air MS must be connected to the **black wire** of the VH400 moisture sensor

The red wire (lampo Symbol) of your Tempus Air MS must be connected to the red wire of the VH400 moisture sensor
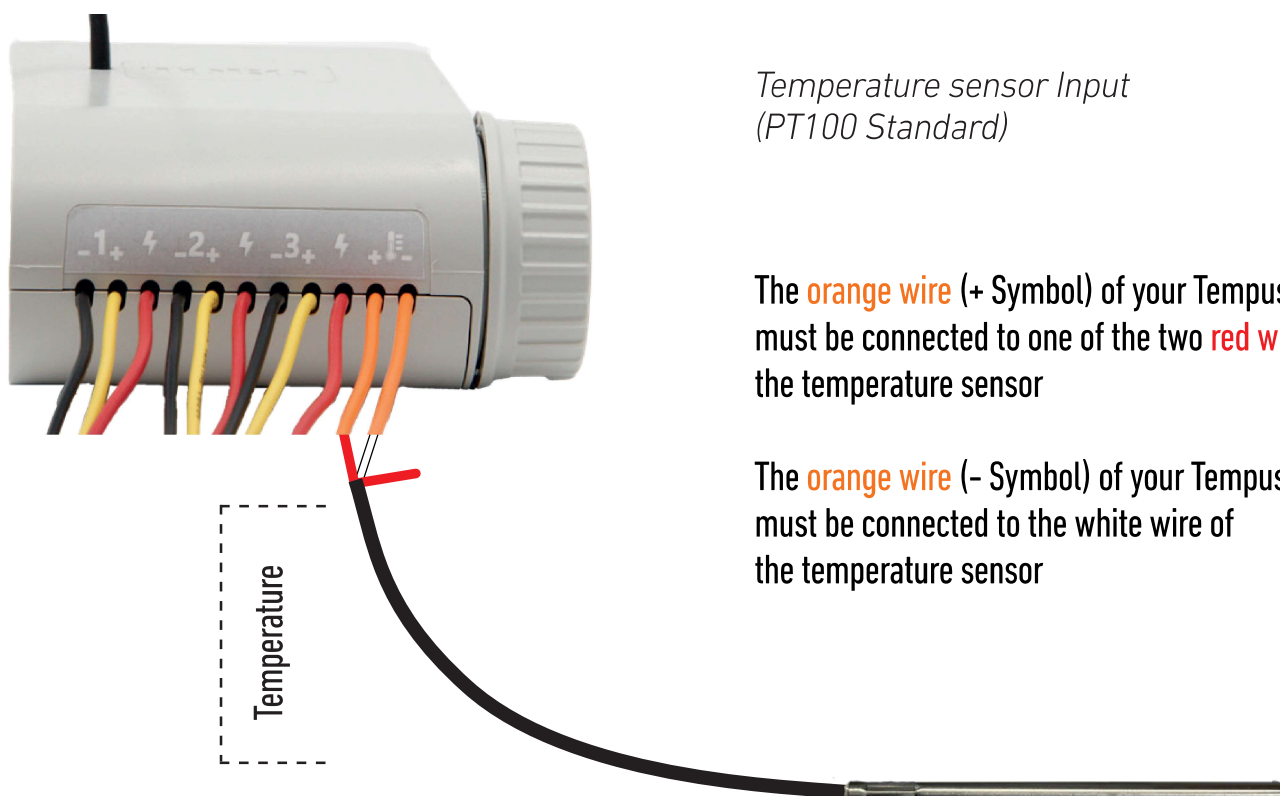
Moisture Sensor

Note: the Tempus Air S1 has only one configurable sensor input.

Temperature sensor (S4 only)

Temperature sensor Input (PT100 Standard)

The orange wire (+ Symbol) of your Tempus Air MS must be connected to one of the two red wires of the temperature sensor

The orange wire (– Symbol) of your Tempus Air MS must be connected to the white wire of the temperature sensor

Temperature

Note: the Tempus Air S1 doesn't have temperature sensor input.

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GENERAL INFORMATION

This symbol indicates that the product uses a LoRa™ technology radio.

The symbol «CE» indicates that this device complies with the European standards on safety, health, environment and user protection. Devices with the symbol «CE» are intended for sale in Europe.

This symbol indicates that these types of electrical and electronic equipment must be disposed of separately in European countries. Do not dispose of this device with
your household waste. Please use the collection and recycling points available in your country when you no longer need this device.

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For Technical Assistance:
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TORO®