

# WHADDA WPSE320 Analogue Temperature Sensor Module User Manual

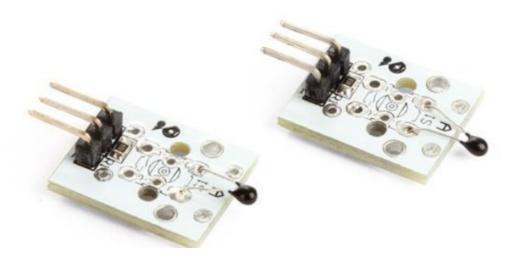
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WHADDA WPSE320 Analogue Temperature Sensor Module



# **Analogue Temperature Sensor Module WPSE320**

#### **User Manual**

Thank you for choosing Whadda! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, do not install or use it and contact your dealer.

# **Safety Instructions**

- Read and understand this manual and all safety signs before using this appliance.
- · For indoor use only.

#### **General Guidelines**

1. A thermistor is a type of resistor where the resistance is dependent on temperature, more so than in standard resistors.

### **Product Overview**

The EN Analogue Temperature Sensor Module WPSE320 is a thermistor-based temperature sensor that can be used to measure temperature changes in indoor environments.

# **Specifications**

• Input Voltage: 5V DC

• Temperature Range: -55°C to +125°C

Accuracy: ±0.5°C

• Output Signal: Analogue (0-5V)

#### Connection

The WPSE320 can be connected to an Arduino board using the following pins:

- VCC − 5V
- GND GND
- S Analog In (A0)

# **Product Usage Instructions**

- 1. Connect the WPSE320 to an Arduino board using the pins specified above.
- 2. Upload the Analog In Out Serial example sketch to your Arduino board (File > Examples > 03. Analog > Analog In Out Serial).
- 3. Open the Serial Monitor.
- 4. Hold the NTC thermistor to increase its temperature. The reported value in the Serial Monitor will change accordingly.

#### Overview

To all residents of the European Union

Important environmental information about this product

This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules.

If in doubt, contact your local waste disposal authorities.

Thank you for choosing Whadda! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, do not install or use it and contact your dealer.

# **Safety Guide**

- Read and understand this manual and all safety signs before using this appliance.
- · For indoor use only.
- This device can be used by children aged from 8 years and above, and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the device in a safe way and understand the hazards involved. Children shall not play with the device. Cleaning and user maintenance shall not be made by children without supervision.

# **General Guidelines**

- Refer to the Velleman® Service and Quality Warranty on the last pages of this manual.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the
  device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorized way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.
- Nor Velleman Group nv nor its dealers can be held responsible for any damage (extraordinary, incidental or indirect) of any nature (financial, physical...) arising from the possession, use or failure of this product.
- Keep this manual for future reference.

#### What is Arduino®

Arduino® is an open-source prototyping platform based on easy-to-use hardware and software. Arduino® boards are able to read inputs – light-on sensor, a finger on a button or a Twitter message – and turn it into an output – activating of a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so, you use the Arduino programming language (based on Wiring) and the Arduino® software IDE (based on Processing). Additional

shields/modules/components are required for reading a twitter message or publishing online. Surf to <a href="https://www.arduino.cc">www.arduino.cc</a> for more information.

#### **Product Overview**

A thermistor is a type of resistor where the resistance is dependent on temperature, more so than in standard resistors.

# **Product Specifications**

• NTC type: NTC-MF52 3950

• temperature range: -55 °C to 125 °C

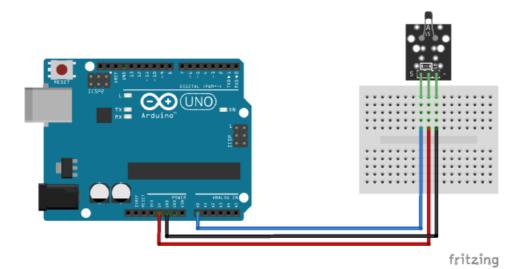
• accuracy: +/- 0.5 °C

• pull-up resistor: provided, 10 kΩ

• connection: 3 pins ((+)5 V, (-) ground, (S) analogue output)

• dimensions: 20 x 15 x 5 mm

### Connection



Arduino <sup>®</sup>		WPSE320
GND	<b>•</b>	-
+5 V	<b>•</b>	+
Α0		S

#### Example

Open the AnalogInOutSerial example (File > Examples > 03. Analog > AnalogInOutSerial). Once uploaded, open the serial monitor. You will see the reported value change when you hold the NTC thermistor so it increases its temperature.

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# **Documents / Resources**



<u>WHADDA WPSE320 Analogue Temperature Sensor Module</u> [pdf] User Manual WPSE320 Analogue Temperature Sensor Module, WPSE320, Analogue Temperature Sensor Module, Temperature Sensor Module, Module

# References

- Whadda Exciting Electronics
- <u>Arduino Home</u>
- S Arduino Home

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