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› Greluma AC 230V Digital Temperature Controller Socket with Sensor Probe (Model ZL794LUM)

Greluma ZL794LUM

Greluma AC 230V Digital Temperature Controller Socket

Model: ZL794LUM

INTRODUCTION

The Greluma AC 230V Digital Temperature Controller Socket is a versatile device designed for precise temperature management and timing control. It features a plug-and-play design, making it easy to use for various applications such as greenhouses, aquariums, terrariums, incubators, and home heating/cooling systems. This controller can detect temperature, set desired temperature ranges for heating or cooling, and offers multiple timing functions.

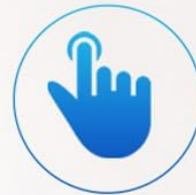
Features



Detection
temperature



Periodic
timing



intelligent
control



Large LCD
screen



Flame retardant
material



safety
protection

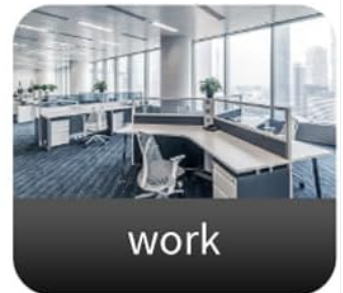
This image displays the Greluma Digital Temperature Controller Socket, highlighting its key features: detection temperature, periodic timing, intelligent control, large LCD screen, flame retardant material, and safety protection.

It is widely used



Widely used in intelligent control, such as carbon heating, aquaculture, greenhouse, family life and so on

THERMOSTAT



This image illustrates the wide range of applications for the temperature controller, including use in greenhouses, offices, for aquatic products, breeding, home furnishing, and with refrigerators.

PACKAGE CONTENTS

- 1 x Greluma Digital Temperature Controller Socket
- 1 x Sensor Probe
- 1 x User Manual (English)

SETUP

1. **Unpack:** Carefully remove all components from the packaging.
2. **Connect Sensor:** Insert the sensor probe into the designated port on the temperature controller. Ensure it is securely connected.
3. **Power On:** Plug the temperature controller into a standard AC 230V power outlet. The LED display will illuminate.

4. **Connect Device:** Plug the appliance you wish to control (e.g., heater, fan) into the socket on the temperature controller.

OPERATING INSTRUCTIONS

The controller features four buttons: MODE, SET, UP, and DOWN. These buttons are used to navigate menus and adjust settings.

Functions



This image labels the various parts of the controller's display and buttons, including measured temperature, start/stop temperatures, output indicator, and the reset button.

1. Button Functions

- **MODE Button:** Press to switch between Temperature Control Mode and Timing Modes (F01-F04). Long press to exit and save temperature correction changes.
- **SET Button:** Press to enter setting mode for parameters. Long press for 5 seconds to exit setting mode without saving changes.
- **UP Button:** Increase values or navigate up in menus.

- **DOWN Button:** Decrease values or navigate down in menus.

2. Temperature Control Mode

In this mode, you set a start temperature and a stop temperature to control your connected appliance.

1. Press the **MODE** button until the display shows the Temperature Control Mode (Measured Temperature, Start Temperature ON, Stop Temperature OFF).
2. Press the **SET** button to enter parameter setting. The 'Start Temperature ON' value will flash.
3. Use the **UP** and **DOWN** buttons to adjust the desired start temperature.
4. Press **SET** again to move to the 'Stop Temperature OFF' value.
5. Use the **UP** and **DOWN** buttons to adjust the desired stop temperature.
6. Press **SET** again to confirm and exit, or wait a few seconds for it to auto-save and exit.

Operating Logic:

- **Heating Mode:** If the Start Temperature is set *below* the Stop Temperature, the controller operates in heating mode. The appliance turns ON when the measured temperature drops to the Start Temperature and turns OFF when it reaches the Stop Temperature.
- **Cooling Mode:** If the Start Temperature is set *above* the Stop Temperature, the controller operates in cooling mode. The appliance turns ON when the measured temperature rises to the Start Temperature and turns OFF when it drops to the Stop Temperature.

Temperature range

-40°C ~ +120°C

THERMOSTAT



This image shows the controller's wide temperature range capability, from -40°C to +120°C.

3. Timing Functions

The controller offers four timing modes (F01-F04). *Note: Temperature control and timing functions cannot be used simultaneously.*

1. Press the **MODE** button repeatedly to cycle through the timing modes (F01, F02, F03, F04).
2. Once in the desired timing mode, press **SET** to adjust the timing parameters (hours and minutes) using the **UP** and **DOWN** buttons.
3. Press **SET** again to confirm and exit.

Timing Modes Explained:

- **F01: Cyclic Timing Mode (CYCLE TIMER)**
Sets an ON duration (CD ON) and an OFF duration (CD OFF) for continuous cycling.
- **F02: Countdown ON Mode (CD ON)**
The device is currently OFF. Sets a countdown time after which the device will turn ON.
- **F03: Countdown OFF Mode (CD OFF)**
The device is currently ON. Sets a countdown time after which the device will turn OFF. Upon completion, the output turns

off and the timer exits.

- **F04: Countdown ON and Countdown OFF Mode (CD ON, CD OFF)**

The device is currently OFF. Sets a countdown time for the device to turn ON (CD ON), and then after it starts, sets another countdown time for it to turn OFF (CD OFF).

Be economical of time and energy



Automation of your daily work, accurate temperature control, cycle timing, sense of use doubled

THERMOSTAT



This diagram from the user manual illustrates the different display modes for temperature control and timing functions (F01-F04), along with their respective settings.

4. Temperature Correction Function

If the measured temperature needs calibration, you can adjust it using this function.

1. With the device powered on, long press the **MODE** button. After 2 seconds, the display will enter real-time temperature calibration mode.
2. Use the **UP** and **DOWN** buttons to adjust the correction value. The correction range is -9.9 to 9.9 °C.
3. To save the change and exit, long press the **MODE** button again.
4. To exit without saving, press and hold the **SET** button for 5 seconds.

MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or immerse the unit in water.
- **Sensor Care:** Keep the sensor probe clean and free from debris. Avoid bending or damaging the probe cable.
- **Storage:** When not in use for extended periods, store the controller in a cool, dry place away from direct sunlight.

TROUBLESHOOTING

If you encounter issues, refer to the following common problems and solutions:

- **Display shows "E1":** This indicates an open circuit in the sensor probe or a temperature below -45°C. Check the sensor connection and ensure it is within the operating temperature range.
- **Display shows "E2":** This indicates a short circuit in the sensor probe or a temperature above 120°C. Check the sensor for damage and ensure it is within the operating temperature range.
- **Device not turning ON/OFF as expected:**
 - Verify the Start and Stop temperatures are set correctly for heating or cooling mode.
 - Ensure the timing function is not active if you intend to use temperature control, as these modes are mutually exclusive.
 - Check if the connected appliance is functioning correctly.
- **Inaccurate temperature reading:** Use the temperature correction function to calibrate the sensor if necessary.

SPECIFICATIONS

Product dimension



This image provides the physical dimensions of the controller and the length of its sensor cable.

Model Number	ZL794LUM
Material	ABS Plastic
Voltage	230V AC, 50Hz
Max. Load	16A (2) 3680W
Temperature Control Accuracy	±1%
Time Accuracy	Max. 10 minutes
Temperature Range	-40 ~ 120 °C
Display Type	LCD
Dimensions (Product)	14.5 x 8.4 x 6.4 cm; 190 grams (approx.)

Sensor Type	NTC 10K
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WARRANTY

Please refer to your retailer or the manufacturer, Greluma, for specific warranty details and terms.

SUPPORT

For technical assistance or customer support, please contact your point of purchase or the Greluma customer service department.

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