

DAUZ WK-004

DAUZ WK-004 Digital Temperature Controller User Manual

Model: WK-004 | Brand: DAUZ

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your DAUZ WK-004 Digital Temperature Controller. Please read this manual carefully before use to ensure proper functionality and safety. Keep this manual for future reference.

2. PRODUCT OVERVIEW AND FEATURES

The DAUZ WK-004 is a multifunctional intelligent 4-way digital thermostat regulator designed for precise temperature control in various applications, including greenhouses, animal husbandry, boiler water pumps, and flower cultivation. It features robust construction and advanced functionalities for reliable performance.

- **4-Way Independent Control:** The controller supports 4 independent outputs, each with separate heating and cooling settings.
- **High Precision Display:** Features a precise digital display with accuracy up to 0.1°C.
- **Alarm Functionality:** Includes high and low temperature overshoot alarm functions to prevent damage and ensure optimal conditions.
- **Durable Construction:** Made from non-toxic, shock-resistant, heat-resistant, and low-temperature resistant ABS material.
- **Waterproof Probe:** Equipped with a waterproof NTC probe for reliable temperature sensing in various environments.
- **Voltage Fluctuation Protection:** Designed with accessories to prevent damage from voltage fluctuations.



Figure 2.1: Front view of the DAUZ WK-004 Digital Temperature Controller, showing the digital display and control buttons.

3. SPECIFICATIONS

Feature	Specification
Item Type	Digital Temperature Controller
Material	ABS
Voltage	110-230 V
Input	NTC Probe
Accuracy	±0.5% FS
Error Correction Range	-9 to +9 °C (software correction available)
Display Range	Process value, deviation value: -9.9 ~ 99.9 °C

Feature	Specification
Control Output	4 independent relay controls, independent temperature alarm output
Opening Size	Approx. 157 x 76 mm / 6.18 x 2.99 inches
Item Model Number	DAUZ1ubdyfx53e-11
Package Includes	1 x Temperature Controller, 1 x NTC Probe (10m)



Figure 3.1: The DAUZ WK-004 controller shown with its included 10-meter NTC waterproof temperature probe.

4. SETUP AND INSTALLATION

The DAUZ WK-004 controller is designed for direct installation or integration into industrial control equipment panels. Ensure all power is disconnected before proceeding with installation.

- Mounting:** Install the controller into a panel opening of approximately 157 x 76 mm. Secure it using the provided clips or mounting hardware.
- Wiring:** Connect the power supply (110-230V) to the designated terminals. Connect the NTC temperature

probe to the appropriate input terminals. Connect your heating and cooling devices to the 4 independent relay output terminals as required for your application. Refer to the wiring diagram on the back of the unit for precise connections.

3. **Probe Placement:** Position the waterproof NTC probe in the environment where temperature measurement and control are needed. Ensure the probe is securely placed and not exposed to direct physical damage.
4. **Initial Power-Up:** After all connections are secure, apply power to the unit. The digital display should illuminate.



Figure 4.1: Rear view of the controller, illustrating the various wiring terminals for power, NTC probe, and the four independent relay outputs.

5. OPERATING INSTRUCTIONS

The WK-004 controller allows for independent temperature and time settings for each of its four channels.

1. **Power On/Off:** The unit powers on automatically when connected to a power source.
2. **Temperature Setting:** Press the 'Temperature Setting' button to enter temperature adjustment mode. Use the 'Add' and 'Subtract' buttons to set the desired temperature for the active channel. Repeat for each channel as needed.

3. **Time Setting:** Press the 'Time Setting' button to enter time adjustment mode. Use the 'Add' and 'Subtract' buttons to set the desired operational time or delay for the active channel.
4. **Heating/Cooling Mode:** Each channel can be configured for independent heating or cooling operation. Refer to the on-screen indicators (e.g., A0 for heating, A1 for cooling) and the specific programming instructions provided with the device for detailed mode selection.
5. **Alarm Thresholds:** Set high and low temperature alarm thresholds to trigger alerts if the temperature exceeds or falls below the set limits. Consult the device's programming menu for setting these values.
6. **Error Correction:** If temperature readings appear inaccurate, use the software error correction feature (range -9 to +9 °C) to calibrate the sensor.



Figure 5.1: Angled view of the controller's front panel, highlighting the digital displays for temperature and time, along with the 'Temperature Setting' and 'Time Setting' buttons.

6. MAINTENANCE

Regular maintenance ensures the longevity and accurate operation of your DAUZ WK-004 Digital Temperature Controller.

- **Cleaning:** Wipe the controller's surface with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Probe Inspection:** Periodically inspect the NTC probe for any signs of damage or corrosion. Ensure it is clean and free from debris that could affect its accuracy.
- **Connection Check:** Regularly check all wiring connections to ensure they are secure and free from loose contacts.
- **Environmental Conditions:** Ensure the controller is operated within its specified environmental conditions to prevent damage. The ABS material is resistant to heat and low temperatures, but extreme conditions should be avoided.

7. TROUBLESHOOTING

If you encounter issues with your DAUZ WK-004 controller, refer to the following common troubleshooting steps:

- **No Display/Power:** Check the power supply connection and ensure the voltage is within the 110-230V range. Verify that the power outlet is functional.
- **Incorrect Temperature Reading:** Ensure the NTC probe is correctly connected and fully inserted. Check the probe for physical damage. Use the software error correction feature if a consistent offset is observed.
- **Alarm Triggering Frequently:** Review your high and low temperature alarm settings. Ensure they are appropriate for your application. Check if the controlled environment is experiencing unusual temperature fluctuations.
- **Output Not Activating:** Verify that the heating/cooling mode and set points are correctly configured for the specific channel. Check the wiring to the connected device.
- **Voltage Fluctuation Protection:** The device is designed with protection against voltage fluctuations. If issues persist after a power surge, contact support.

8. WARRANTY AND SUPPORT

Warranty information for the DAUZ WK-004 Digital Temperature Controller is not explicitly provided in the product details. For specific warranty terms, technical support, or spare parts availability, please contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.