SINOTIMER MC101-611

SINOTIMER MC101-611 Universal Intelligent Temperature Control Meter

User Instruction Manual

1. Introduction

The SINOTIMER MC101-611 is a universal intelligent temperature control meter designed for precise temperature and humidity management. It features a clear LCD display for process value (PV) and set value (SV), along with various output and alarm functions. This manual provides essential information for the safe and effective operation of your device.

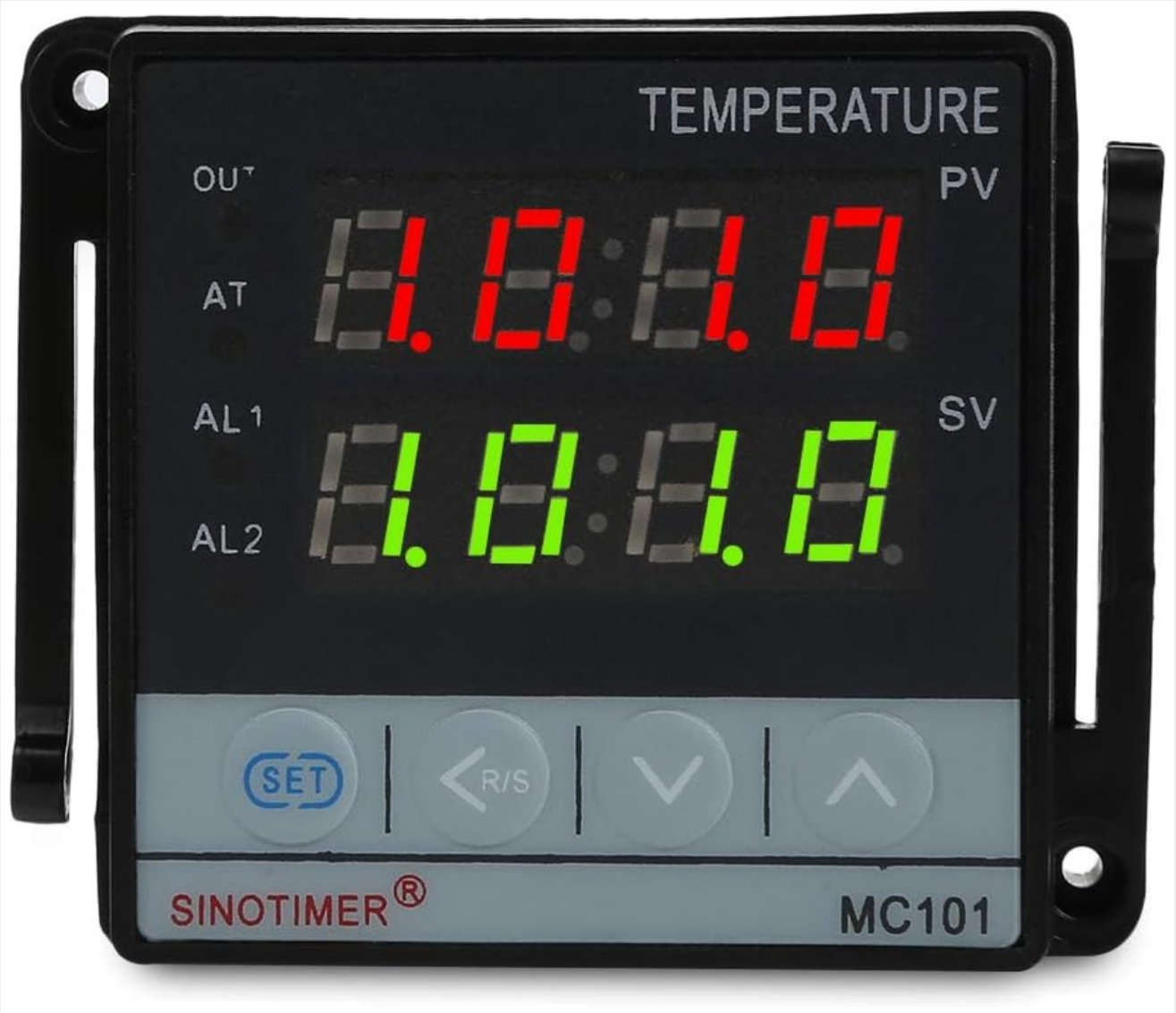


Figure 1.1: Front view of the MC101-611 Temperature Control Meter, showing the dual digital display and control buttons.

2. Safety Information

- Read all instructions carefully before installation and operation.
- Ensure the power supply voltage matches the device's requirements (85-265V AC, 50/60Hz).
- All wiring should be performed by a qualified electrician to prevent electric shock or damage to the device.
- Do not operate the device in environments with excessive moisture, dust, or corrosive gases.
- Disconnect power before performing any maintenance or wiring changes.
- Keep the device away from strong electromagnetic interference.

3. Product Features

- Universal input for various temperature sensors (K, J, E, T, R, S, B, Pt100, Cu50).
- Dual digital display for Process Value (PV) and Set Value (SV).
- Multiple control outputs: Relay and SSR (Solid State Relay).
- Alarm functions (AL1, AL2) for high/low limits.
- PID auto-tuning function for precise control.
- Wide operating temperature range.
- Compact and easy-to-install design.

4. Package Contents

- 1 x SINOTIMER MC101-611 Temperature Control Meter
- 1 x Mounting Bracket (as shown in Figure 4.1)
- 1 x User Manual (this document)

Figure 4.1: The MC101-611 unit alongside its included mounting bracket, essential for panel installation.

5. Setup

5.1 Mounting

The MC101-611 is designed for panel mounting. Cut an appropriate opening in your control panel and insert the meter. Secure it from the rear using the provided mounting bracket. Ensure a snug fit to prevent vibration.

5.2 Wiring

Refer to the wiring diagram on the side of the unit and Figure 5.1 for correct connections. Ensure all connections are secure and insulated. Incorrect wiring can damage the device or pose a safety hazard.

- **Terminals 1 & 2:** AC Power Supply (85-265V AC, 50/60Hz)
- **Terminals 3 & 4:** Main Output (OUT) - Normally Open (NO) and Normally Closed (NC) contacts for Relay output.
- **Terminals 6 & 7:** Alarm Output (ALM) - Relay contacts for alarm.
- **Terminals 8, 9, 10:** Sensor Input (RTD/TC) - Connect your temperature sensor here. Refer to the sensor's manual for correct polarity/connection type.
- **Terminals 11 & 12:** SSR Output - For connecting to a Solid State Relay.

Figure 5.1: Detailed wiring diagram on the side of the MC101-611, indicating connections for power, output, alarm, and sensor input.

6. Operating Instructions

6.1 Display Overview

The meter features a dual display:

- **PV (Process Value):** The upper red display shows the current measured temperature/humidity.
- **SV (Set Value):** The lower green display shows the desired set point.
- **OUT Indicator:** Illuminates when the main output is active.
- **AT Indicator:** Illuminates when the auto-tuning function is active.
- **AL1/AL2 Indicators:** Illuminate when Alarm 1 or Alarm 2 conditions are met.

6.2 Button Functions

- **SET Button:** Used to enter parameter setting mode and confirm selections.
- **< / R/S Button:** Used to shift digits during setting or to reset alarms.
- **▼ (Down) Button:** Decreases the value of a parameter or set point.
- **▲ (Up) Button:** Increases the value of a parameter or set point.

6.3 Setting the Temperature/Humidity Set Point (SV)

1. In normal operating mode, press the **SET** button once. The SV display will begin to flash.
2. Use the ▲ (Up) and ▼ (Down) buttons to adjust the SV to your desired value. Use the **< / R/S** button to shift the cursor for faster adjustment.
3. Press the **SET** button again to confirm the new SV and exit the setting mode.

6.4 Advanced Parameter Settings

To access advanced parameters (e.g., input type, control mode, alarm settings, PID parameters), press and hold the **SET** button for approximately 3-5 seconds until the first parameter code appears on the PV display. Use the ▲ (Up) and ▼ (Down) buttons to navigate through parameters and the **SET** button to enter and confirm values. Refer to the detailed parameter list in the full technical manual for specific codes and their functions.

7. Maintenance

- **Cleaning:** Wipe the display and casing with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically check wiring connections for looseness or corrosion.
- **Storage:** If storing the device for an extended period, ensure it is kept in a dry, dust-free environment within its specified storage temperature range.

8. Troubleshooting

Problem	Possible Cause	Solution
Display is blank	No power supply; Incorrect wiring; Device fault.	Check power connections and voltage; Verify wiring according to diagram; Contact support if problem persists.
PV display shows 'HHHH' or 'LLLL'	Sensor open circuit (HHHH) or short circuit (LLLL); Sensor not connected; Incorrect sensor type setting.	Check sensor wiring; Ensure sensor is connected; Verify sensor type setting in parameters matches connected sensor.
Output not activating	SV not reached; Control mode incorrect; Output wiring issue.	Adjust SV; Check control mode (e.g., heating/cooling); Verify output wiring.

Problem	Possible Cause	Solution
Temperature reading is inaccurate	Sensor calibration needed; Sensor damaged; External interference.	Perform sensor calibration (if supported); Replace sensor; Relocate device away from interference sources.

9. Specifications

Figure 9.1: Product label on the side of the MC101-611, detailing model, range, output, and power supply specifications.

Parameter	Value
Model	MC101-611
Range	0-1300°C K (Configurable for various sensor types)
Temperature Unit	Celsius/Fahrenheit (Selectable)
Output	Relay/SSR
Alarm	ALM1
Supply Voltage	85-265V AC, 50/60Hz
Display Type	LCD
Item Weight	5.1 ounces

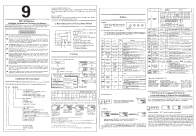
Parameter	Value
Package Dimensions	3.9 x 2.8 x 2.4 inches

10. Warranty and Support

This product comes with a standard manufacturer's warranty. Please refer to your purchase documentation for specific warranty terms and conditions. For technical support, troubleshooting assistance, or warranty claims, please contact the SINOTIMER customer service through the retailer where the product was purchased or visit the official SINOTIMER website for contact information.

Product Model: MC101-611

Related Documents

	MC-101 Series Intelligent Temperature Controller User Manual User manual for the MC-101 Series Intelligent Temperature Controller, detailing its features, operation, and settings for precise temperature control.