

Reland Sun XY-WT01

Digital Temperature Controller Thermostat Switch XY-WT01

USER MANUAL

1. INTRODUCTION

The Reland Sun XY-WT01 is a high-precision digital temperature controller designed for various applications requiring precise temperature management. This versatile device supports both heating and cooling modes, features a clear LCD display for real-time temperature monitoring, and includes essential functions like power-down memory and high-temperature alarms. Its robust design makes it suitable for industrial control, smart home systems, and equipment protection.



Figure 1: Front view of the XY-WT01 Digital Temperature Controller with its LCD display active.

2. KEY FEATURES

- **Multifunctional Operation:** Supports power-down memory, urgent stop, and automatic parameter saving.
- **Real-time Display:** High-definition LCD provides real-time temperature readings with a quick refresh rate of 0.5 seconds.
- **Dual Mode Control:** Capable of operating in both heating (H) and cooling (C) modes.
- **High Precision:** Accurate temperature measurement with an error margin within 1 degree Celsius.

- **Alarm Function:** Integrated high-temperature alarm for safety and monitoring.
- **Wide Application:** Suitable for smart homes, industrial control, automatic irrigation, and more.

3. TECHNICAL SPECIFICATIONS

Parameter	Value
Control Load Current	10A (Max)
LCD Refresh Rate	0.5 seconds
Temperature Sensor	NTC-10K B3950
Test Temperature Range	-50°C to 110°C
Control Precision	0.1°C
Operating Humidity	5% - 95% RH
Sensor Probe Material	Stainless Steel
Display Type	LCD
Model Number	756552865177
UPC	756552865177

4. PRODUCT COMPONENTS AND LAYOUT

The XY-WT01 controller features a compact design with an intuitive button layout and a clear LCD display. Understanding the components is crucial for proper operation.



Figure 2: Front view of the XY-WT01 showing the control buttons and LCD display area.

- **LCD Display:** Shows current temperature, set temperature, and operational status.
- **UP Button (▲):** Used to increase values or navigate menus.

- **DOWN Button (▼):** Used to decrease values or navigate menus.
- **SET Button (⚙):** Enters parameter setting mode and confirms selections.
- **Power Button (⏻):** Turns the device on or off.

5. INSTALLATION AND WIRING

Proper installation and wiring are essential for the safe and effective operation of the XY-WT01 controller. Ensure all connections are secure and follow local electrical codes.



Figure 3: Side view of the XY-WT01 illustrating the wiring terminals.

5.1. Power Connection

Connect the appropriate power supply to the designated power input terminals. Refer to the markings on the device for correct polarity and voltage requirements. Ensure the power source matches the controller's specifications.

5.2. Sensor Connection

Connect the NTC-10K B3950 temperature sensor to the sensor input terminals. The sensor probe should be placed in the environment where temperature measurement is required. Ensure the sensor cable is not damaged and is securely connected.

5.3. Load Connection

Connect the heating or cooling device (load) to the output relay terminals. The controller will switch this relay to control the load based on the set temperature and operating mode. Ensure the load's current draw does not exceed the controller's maximum output current of 10A.

6. OPERATING INSTRUCTIONS

This section details the basic operation and parameter settings for the XY-WT01 temperature controller.

6.1. Power On/Off

- Press the **Power Button** () to turn the device on. The LCD will display the current temperature.
- Press and hold the **Power Button** () for approximately 3 seconds to turn the device off.

6.2. Setting Temperature

- In normal operating mode, press the **SET Button** (⊗) once. The display will flash the current set temperature.
- Use the **UP** (▲) and **DOWN** (▼) buttons to adjust the desired temperature value.
- Press the **SET Button** (⊗) again to confirm the setting and exit. If no button is pressed for a few seconds, the setting will automatically save and exit.

6.3. Parameter Settings (P0-P6)

To access advanced parameter settings, press and hold the **SET Button** (⊗) for approximately 3 seconds. The display will show