SAUTER

JTL 100 USB Data Logger

Introduction

The USB data logger (hereinafter referred to as the “logger”) is a low-power, high-precision device for measuring temperature and humidity. It features an IP65 rating (dust/water protection), a large data storage capacity, and functions such as automatic saving, USB transfer, real-time display, data export, etc. It is frequently used in food processing, cold chain transportation, warehousing, and other applications.

Accessories

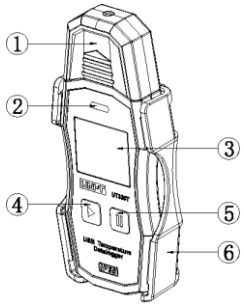
User manual.....1 copy
Battery.....1 piece
Mounting bracket .....1 piece
Screw.....2 pieces

Safety Instructions

• Check the logger for damage before use.
• Replace the battery when the logger displays “ ”.
• If you notice a malfunction in the logger, stop using it and contact your dealer.
• Do not use the logger near explosive gases, volatile gases, corrosive gases, vapors, or powders.
• Do not recharge the battery.
• A 3.0 V CR2032 battery is recommended.
• Insert the battery according to its polarity.
• Remove the battery if the logger will not be used for an extended period of time.

Setup

No.	Description
1	USB cover
2	Indicator (green = logging, red = alarm
3	Display
4	Start/Select
5	Stop/Switch between humidity and temperature
6	Mount



Display

No	Description	No	Description
1	Start	10	Display range for temperature and humidity
2	Stop	11	Time display area
3	Minimum value	12	Fixed time/day
4	Mark	13	Alarm due to abnormal logging
5	Average kinetic temperature	14	No alarm
6	Number of sets	15	Set lower value
7	Temperature unit	16	Set upper value
8	Low battery	17	Maximum value
9	Humidity unit		

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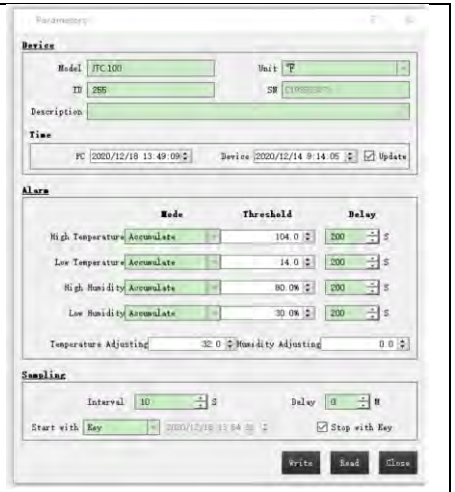
- Download the manual and PC software according to the attached file, and install the software step by step.
- Plug the logger into the PC’s USB port. “USB” will appear on the logger’s main interface. Once the computer has recognized the USB connection, open the software to configure the parameters and analyze the data.
- Open the computer software to browse and analyze the data. For information on using the software, click the Help button on the user interface and select “Software Manual.”

Parameter Configuration

After logging is complete, plug the logger into the PC’s USB port. Once the USB connection is recognized, open the computer software, then click “Parameters” to configure the settings. Take “JCT 100” as an example.

Model	The computer automatically detects the logger model.
Unit	°C or °F
ID	The user can set the ID; the range is between 0 and 255
SN	Serial number
Description	Users can add descriptions using numbers and letters.
Alarm delay	The logger does not trigger an alarm when the temperature exceeds the upper (lower) limit, but only when the exceedance lasts longer than the delay time.
Single alarm	The logger triggers an alarm if the duration of the alarm exceeds the delay time. The logger does not trigger an alarm if the measured value returns to normal within the delay time.
Cumulative alarm	The logger triggers an alarm if the cumulative alarm time exceeds the delay time.
Set Temperature and Humidity	Adjust the logger error by changing the calibration value.
Sampling interval	10 seconds to 24 hours
Sampling delay	Start logging after the delay period has elapsed. 0 to 240 minutes
Start logging	Press the start button, start immediately via the software, or start at a specified time.

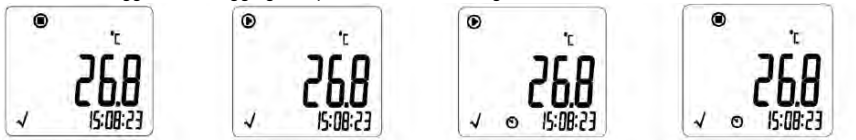


Operation

There are three start modes:

1. Press the " " button to start the logger
2. Start logging via the software
3. Start logging at a specified time.

- Mode 1: Press and hold the Start button in the main menu for 3 seconds to start logging. This start mode supports a start delay. If a delay time is set, the logger starts after this time has elapsed.
- Mode 2: Start logging via the software: Once parameter settings are complete in the PC software, the logger starts logging after being disconnected from the PC
- Mode 3: Start the logger at a preset time: Once parameter settings are complete in the PC software, the logger starts logging at a preset time after being disconnected from the PC. Mode 1 is disabled.



Not logging Logging Delay logging Logging at fixed time

Stopping the logger
When the logger reaches its maximum capacity, it stops logging. The “Press button to stop” mode supports the “Stop logging via computer software” mode.

There are two stop modes:

1. Press the button to stop.
2. Stop logging via the software.

- *Mode* 1: On the main interface, press and hold the Stop button for 3 seconds to stop the logger. This function is disabled when “Stop logging via the software” is enabled.
- *Mode* 2: After connecting the logger to the computer, click the stop icon on the computer’s main interface to stop logging.

Function Interface 1

Briefly press the stop button to switch between temperature and humidity on the main interface.

Users can briefly press the stop button at any time to return to the main interface. If no button is pressed for 5 seconds, the logger enters power-saving mode.

Mark

When the device is in logging mode, press the Start button for 3 seconds to mark the current data for later reference. The mark icon and the current value will flash three times; the total number of marked values is 10.

Function Interface 2

On the main interface, press the Start and Stop buttons simultaneously for 3 seconds to access Function Interface 2. Briefly press the Start button to display the following: D/M/Y, device ID, maximum number of remaining memory groups, number of mark groups.

Alarm status
When the logger is in operation
Alarm disabled: The green LED flashes every 10 seconds and “✓ ” is displayed on the main interface.
Alarm enabled: The red LED flashes every 10 seconds and "x" is displayed on the main interface. When the logger is in stop mode, no LED is lit.

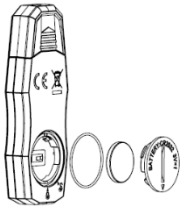
Viewing Data
Users can view the data in either the stop or operating state.
• Viewing data in stop mode: Connect the logger to the PC. If the LED is flashing at this time, the PDF report is being generated. Do not disconnect the logger from the PC at this time. After the PDF report has been generated, users can click on the PDF file to view the data and export it from the computer software.
• Viewing data while the device is running: Connect the logger to the PC. The logger will generate a PDF report containing all previous data. At the same time, the logger continues to collect data and will not be able to generate a new PDF report with updated data until the next time.

Maintenance
Battery Replacement

Follow these steps to replace the battery when the logger displays “ .”

- Turn the battery cover counterclockwise.
- Insert the CR2032 battery and the waterproof rubber ring.
- Insert the cover in the direction of the arrow and turn it clockwise.

Cleaning the Logger
Wipe the logger with a soft cloth or sponge moistened with a little water, detergent, or soapy water. Do not clean the logger directly with water to avoid damaging the circuit board.



Function		JTL 100
	Measuring range	Accuracy
Temperature	-30.0 °C to -20.1 °C	± 0.4 °C
	-20.0 °C to 40.0 °C	
	40.1 °C ~ 70.0 °C	
Humidity	0 ~ 99.9% RH	± 2.5% RH
Resolution		Temperature 0.1 °C; Humidity 0.1 % RH
Logging capacity		64,000 records
Logging interval		10 s to 24 h
Unit/Alarm setting		The default unit is °C. Alarm types include single and collective alarms; the default type is alarm. The alarm type can be changed via the PC software.

Start mode	Press the button to start the logger, or start the logger via the software (immediately/delayed/at a specified time).
Logging delay	0 min ~ 240 min; the default value is 0 min and can be changed via the software
Device ID	0 to 255; the default value is 0 and can be changed via the software
Alarm delay	0 s ~ 10 h, default value is 0 min and can be changed via the software
Screen Off Time	5 seconds
Battery type	CR 2032
Data export	View real-time data export and export data (PDF, XLS) via the software
Operating time	140 days with a 15-minute test interval
Operating temperature and humidity	-30 °C to 70 °C
Storage temperature	-50 °C to 70 °C
Protection class	IP 65