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Scigiene RD0370C Digital RTD Thermometer Instruction Manual

Contents

Scigiene RD0370C Digital RTD Thermometer

Features

Scigiene RD0370C is a high accuracy certified RTD thermometer accurate to better than +-0.4C. It includes a full 3-point N.I.S.T traceable certificate at 3 points over -20C to 140C.

- Includes 3 point N.I.S.T traceable certificate
- IP67 waterproof housing
- Platinum resistor temperature sensor requires less temperature compensation than thermocouple units
- 4-digit LCD readout with LED backlight
- °C/°F switchable
- Min/Max/Avg functions
- Relative mode and Data Hold
- Low battery indication with auto power-OFF
- Includes a pointed 4.5" Stainless Steel RTD probe

Specifications

- **Temperature Range:** -100°C to +300°C (-148°F to +572°F)
- **Resolution:** 0.1°F/C
- **Accuracy:** +-0.4C over -20 to 100C
- **Sensor Types:** Platinum resistance for Pt-100, Pt-500, Pt-1000 (4 wires) selectable
- **Power Supply:** 3 x 1.5V AAA alkaline batteries
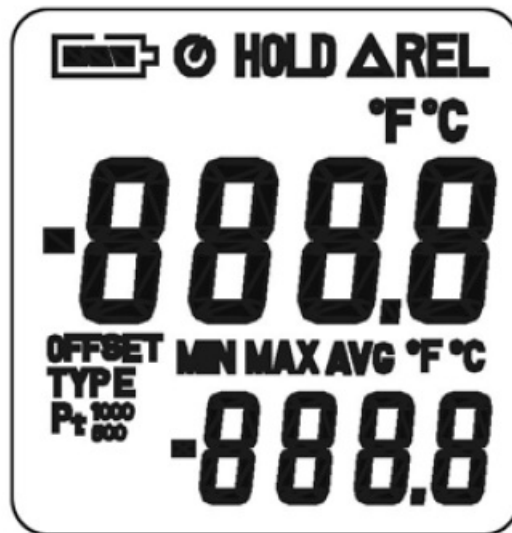- **Battery Life:** Approximately 100 hours

Instrument Description
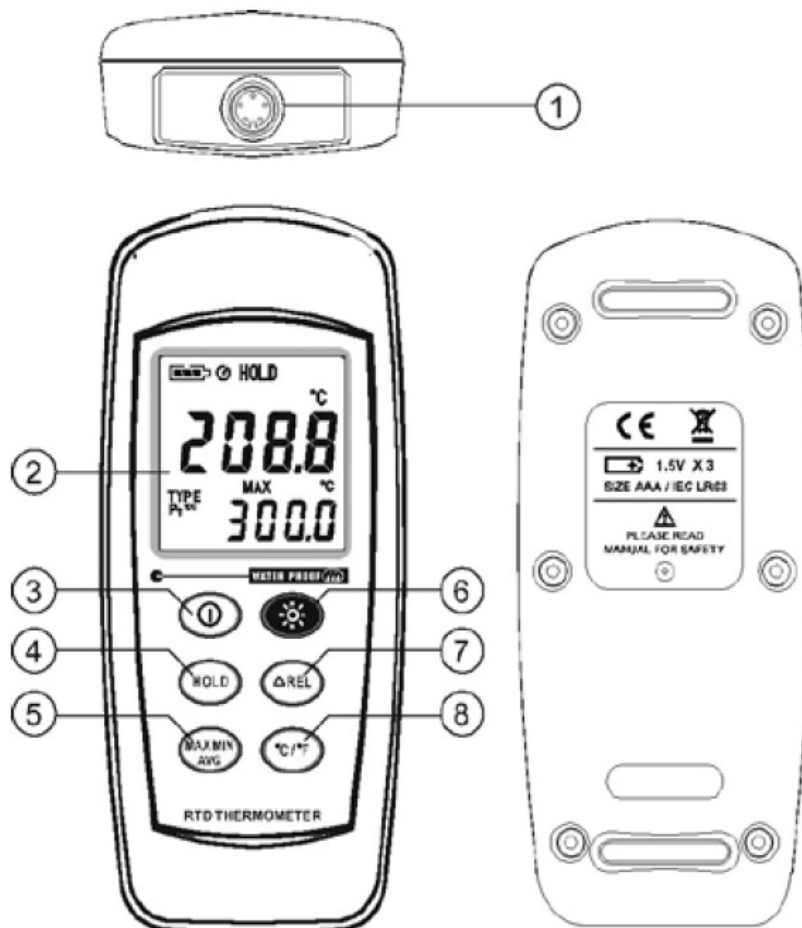
1. Pt type temperature sensor connector
2. LCD display
3. Power ON/OFF button
4. HOLD button
5. MAX/MIN/Average control button
6. Back light button
7. Relative readout button

Display

Symbol definitions and button locations

| -	This indicates that the minus temperature is sensed
°C/°F	Celcius and Fahrenheit indication
Pt xxx	Platinum Type Indication
HOLD	This indicates that the display data is being held
MAX	The Maximum value is being displayed
MIN	The Minimum value is being displayed
AVG	The Average value is being displayed
△REL	The reading is under Relative Mode
▰▰▰▭	The battery power level indication
⏻	This indicates Auto Power Off is enabled

Operating Instructions

Turning the meter on

Press the ⏻ button to turn the thermometer ON or OFF.

Connecting the temperature probe
For measurement, plug the temperature probe into the input connectors.
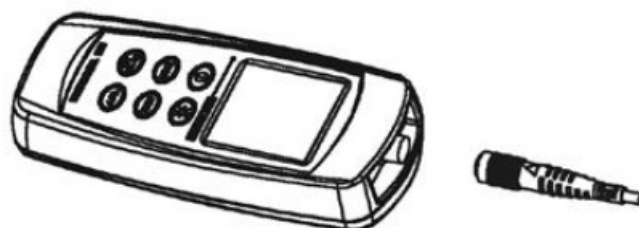
Selecting the Temperature Scale
When the meter is first turned on, the default setting is set to the Celsius (°C) scale. It can be changed to

Fahrenheit (°F) by pressing "°C/°F"button and vice versa back to Celsius.

Data-Hold Operation
To hold the present reading and keep it on the display, press the "HOLD" button. When the hold data is no longer needed, release the data-hold operation by pressing "HOLD" button again.

When the meter is under Data Hold operation, the " △ REL", ⬭AVG MAX MIN AVG MAX MIN and "°C/°F" buttons are disabled.
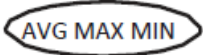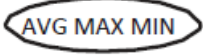

Back Light Operation
Press the "Back Light" button to turn the back light on, press it once again to turn it off. The meter will turn the back light off automatically if the "Back Light" button is not pressed after 10 seconds.
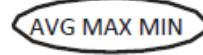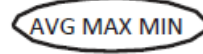

Relative Operation
When the " △ REL" button is pressed, the meter will memorize the present reading and the difference between

the new reading and the memorized reading and the result will be shown on the display. Press the " △ REL" button again to exit the relative operation.
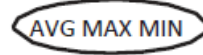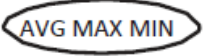

MAX/MIN/AVG Operation

When the ⬭AVG MAX MIN button is pressed, the meter will enter the MAX/MIN/AVG mode. Under this mode the maximum value, minimum value and average value will appear simultaneously. The average value is calculated using the last 8 readings from the memory, it will update with every new reading.
When the MAX symbol is displayed, the Maximum value is shown on the display.

Press ⬭AVG MAX MIN again and the NIN symbol is on the display and also the minimum reading.

Press ⬭AVG MAX MIN again and the AVG symbol is on the display as well as the average reading.

Press ⬭AVG MAX MIN again and the MAX, MIN and AVG will blink together. This means that all these readings are updated in the memory and the reading is the current temperature.

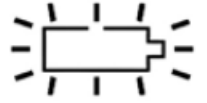Press ⬭AVG MAX MIN to circulate the display mode among these options.

When the meter is under ⬭AVG MAX MIN operation, the " △ REL" and "°C/°F" functions are disabled.
To exit the MAX/MIN mode, press and hold AVG MAX MIN for two seconds.

Auto Power Off
By default, the meter is in auto power-off mode. The meter will power itself off after 30 minutes without operation. To disable the auto power off, press and hold the "HOLD" button and turn the meter on. There will be two successive beeps to indicate that the auto power off has been disabled.

Low Battery
This meter indicates the battery power level directly on the display. Use this reference guide to establish battery power level.

|	
	Battery power level is FULL, you can still take measurements.
	Battery power lever is LOW, the battery will need to be replaced, you can still take measurements.
	Battery power lever is EMPTY, the batteries need to replaced (size AAA, 1.5V x 3). You can no longer take measurements.

Temperature Measurement

Correct Measurement Method
The temperature sensor is located at the end of the metal sheath of the sheath type temperature probe. To accurately test internal temperatures, insert the probe to a distance of at least 15 times the diameter of the sheath directly into the item you want to measure.

Connector Configuration
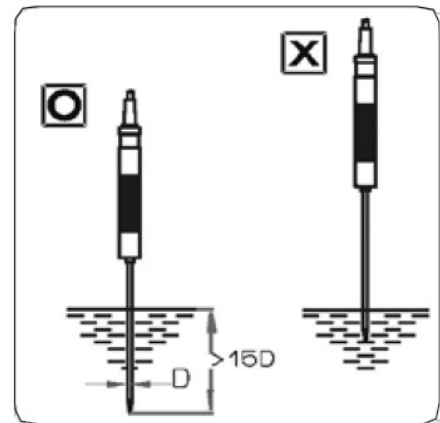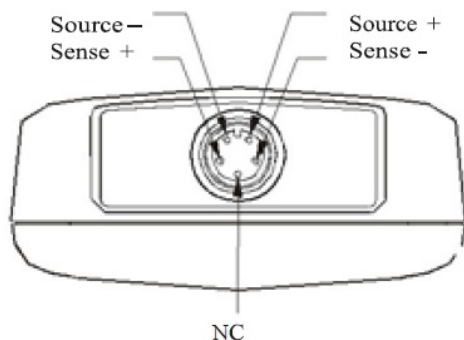
Battery Replacement

1. Remove all of the back cover screws to be able to remove the cover.

2. Verify the polarity of the batteries and install the new LR03 (AAA size) alkaline batteries into the instrument.

3. Replace cover properly onto the meter and tighten screws.

Do no use cleaning agents that contain carbon or benzenes, alcohol or anything similar to clean the meter as thesesubstances will damage the surface of the meter. Do not use tools with sharp edges, screwdrivers, metal brushes or anything similar to clean the meter.
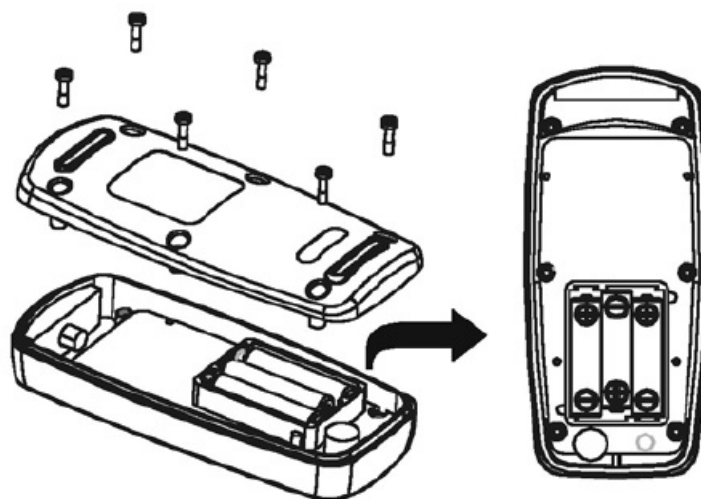
Product Maintenance

In order to ensure the accuracy of the thermometer for a long period of time it should be calibrated once a year.
For service (repairs or calibration) on this or any other products, contact Scigiene at
416-261-4865 or visit our website at: **www.scigiene.com**
Clean the device and the window of the display with a clean, lint-free, antistatic and dry-cleaning cloth.

Temperature Probe

**Piercing type
temperature probe**
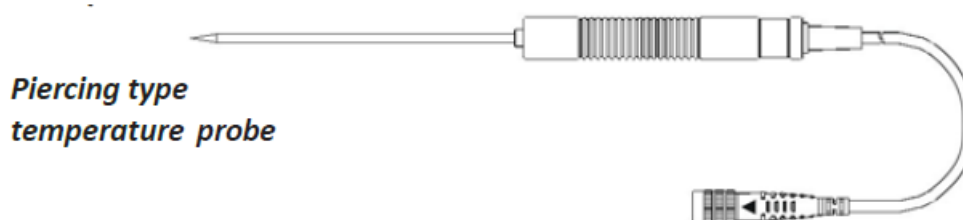
Piercing type temperature probe Specification

Sensor Type	Platinum resistance thermometer sensor Pt 100 (4 wires) IEC751, class A
Accuracy	+/- 0.15°C +/- 0.002 measurement temperature
Measurement Range	-100 to 400°C
Temp. Sensor Dim.	Approx. 3.2mm (0.125")
Temp. Sensor Length	Approx. 120mm (4.72")
Cable Length	Approx. 1100mm (43.3")
Water-resistant	EN60529:1991, IP67

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Documents / Resources

Scigiene RD0370C Digital RTD Thermometer [pdf] Instruction Manual
RD0370C, Digital RTD Thermometer, RD0370C Digital RTD Thermometer, RTD Thermometer, Thermometer

References

- **Scigiene Corporation > Home**