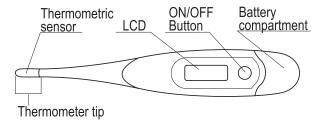


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www.zoeruth.com

Version: 1.0

# RAPID DIGITAL THERMOMETER Model ZR-P100+ (Flexible tip, waterproof)



Congratulations on purchasing this product. Please read the instructions carefully before using for the first time, and keep them in a safe place. This product is intended for the measurement of human body temperature.

### **Operating Instructions**

Before using, please disinfect the probe. To switch on, press the ON/OFF button next to the display; a short beep will sound, indicating that the thermometer is operational. At the same time the thermometer runs a self-check test, during which all the digital segments appear on the LCD. When the letters "L"  $\,$ and a flashing "°C" or "°F" appear, the thermometer is then ready for use (this will flash for approx 5 seconds in which time you commence taking your reading). If the ambient temperature is below 32°C or 89.6°F, then "L°C" or "L°F" will appear on the LCD and if it is more than 43.0 °C or 109.2 °F, then "H°C" or "H°F" will appear on the LCD. During the taking of the reading, the current temperature is constantly displayed and the "  $^{\circ}\text{C}$  " or "  $^{\circ}\text{F}$  " symbol flashes. The measurement is completed when a constant temperature value has been reached. (The temperature value is considered constant when the temperature rises less than  $0.1^{\circ}$ C ( $0.2^{\circ}$ F) within 4 seconds). As soon as the constant temperature value is reached, a beep will sound ten times, and the "°C" or "°F" symbol will stop flashing. The highest measured temperature appears on the LCD. Please note that this thermometer is a maximum thermometer, i.e. the displayed temperature can increase slightly if measurement continues after the beep. This is particularly the case with underarm measurements, the temperature value should be recorded which approximates the core body temperature. In this instance please note the description under "Methods of measuring temperature". When the measurement is completed, please switch the thermometer off by pressing the ON/OFF button. If the device is left on, the thermometer will shut off automatically after 10 minutes.

#### Memory functions

In shutdown mode press the ON/OFF button. The last measured value with " °C " or " °F" will appear automatically on the LCD. This reading is only visible for this one viewing. The reading will now be overwritten from turning the thermometer on.

# Methods of measuring temperature

It is important to remember that the body temperature reading depends on the site where it is measured, for this reason, the measurement site must always be specified in order to ensure that a correct temperature reading is recorded.

#### In the rectum (rectal measurement)

This is the most accurate method from a medical point of view, because it comes closest to the core body temperature. The thermometer tip is inserted carefully into the rectum to a maximum of 2cm (3/4 inch).

The usual measuring time is approximately 9 to 11 seconds.

#### Under the arm (axillary measurement)

Placing the thermometer in the armpit provides a measurement of surface temperature that can fluctuate by around 0.5 °C to 1.5 °C (0.9 °F to 2.7 °F) from rectal temperature readings in adults. The usual measuring time for this method is approximately 23 to 29 seconds. It should be noted that an exact reading won't be obtained if, for example, the armpit temperature is lower than normal (the armpit temperature has been cooled down). In this case, we recommend extending the measuring time by around 5 minutes in order to obtain the most precise possible reading that corresponds as closely as possible to the core body temperature.

#### In the mouth (oral measurement)

There are different heat zones in the mouth. As a general rule, the oral temperature is  $0.3\,^{\circ}\text{C}$  to  $0.8\,^{\circ}\text{C}$  ( $0.5\,^{\circ}\text{F}$  to  $1.4\,^{\circ}\text{F}$ ) lower than the rectal temperature. To ensure that reading is as accurate as possible, place the thermometer tip to the left or right of the root of the tongue. The thermometer tip must have constant contact with the tissue during the reading and be placed under the tongue in one of the two heat pockets at the back. Keep the mouth closed during the reading and breathe evenly through the nose. Do not eat or drink anything before the measurement as this will give you an innacurrate temperature reading. The usual measuring time is approximately 15 to 19 seconds.

Note: We strongly recommend the rectal method as the most accurate method for identifying the basal temperature and advise you to extend the measuring time by 3 minutes after the beep.

## Cleaning and disinfection

The best way to clean the thermometer tip is by applying a disinfectant (eg 70% ethyl alcohol) with a damp cloth. This waterproof thermometer can be immersed in liquid or lukewarm water for thorough cleaning and disinfection.

#### Safety precautions

- + Do not allow the device to come into contact with hot water.
- + Do not expose to high temperatures or direct sunlight.
- + Do not drop the thermometer. It is neither shock-proof nor impact-resistant.
- + Do not bend or open the device (except the battery compartment by no more than 1cm).
- + Do not clean with thinners, petrol or benzene. Only clean with lukewarm water or disinfectant.
- + Do not immerse the waterproof thermometers under more than 15cm of water for longer than 30 minutes.
- + The thermometer contains small parts (including the battery and battery cover) which can be swallowed by children. For this reason, do not leave the thermometer unattended around children.
- + Avoid bending the flexible tip by more than 45 degrees.
- + If the ambient temperature is over 35 °C or 95 °F, dip the thermometer tip in cold water for approximately 5 to 10 seconds prior to measuring the temperature.
- + Persistent fever, in particular in children, has to be treated by a doctor - please get in touch with your doctor!

#### **Battery replacement**

The battery is empty and needs replacing when the \_\_\_ or ■ battery symbol appears on the right of the LCD. Remove the battery cover, gently slide out the battery compartment no more than 1cm and replace it with a new battery (preferably non-mercury) of the same type. Please note: The "+" sign up and the "-" sign down.

## Product disposal

Please ensure environmental protection. Batteries do not belong in the domestic waste. Please hand them in at a collection point or your nearest municipal recycle material centre as special waste.



This symbol on products and/or accompanying documents means that consumed electronic products must not be mixed with conventional domestic waste. Take these products to the corresponding collection points for correct treatment and recycling. For more information on the closest collection point, please enquire with your local authorities.

#### Technical data

Type: Maximum thermometer

**Measurement rang:**  $(32.0 \sim 42.9) \, ^{\circ}\text{C} \, / \, (89.6 \sim 109.2) \, ^{\circ}\text{F}$ Measurement accuracy:

+/- 0.1 °C / 0.2 °F (35.5 °C ~ 42.0 °C / 95.9 °F ~ 107.6 °F) +/-0.2 °C /0.4 °F (32.0 °C  $\sim 35.5$  °C, 42.0 °C  $\sim 42.9$  °C /89.6°F~95.9°F,107.6°F~109.2°F)

Storage/transportation temp:  $(-25 \sim 55)$  °C,  $\leq 95\%$ RH Ambient temperature during use:  $(5 \sim 35)$  °C  $\leq 80\%$ RH

Min Scale: 0.1 °C / 0.1 °F

Battery type: Alkaline manganese battery, type LR41, 1.5V, service life minimum 100 hours under continuous operation.

Weight: Approx 13g

## Explanation of symbols

Battery is empty.



Product disposal instructions for electronic devices.



The battery in this product complies with the requirements stated in European Directives 2006/66/EEC.

L°C or L°F: temperature under 32°C or 89.6°F

H°C or H°F: temperature over 42.9°C or 109.2°F



Type BF equipment.

## Legal requirements and guidelines

This product complies with the European Directive for Medical Devices 93/42/EEC and carries the CE mark. The device also complies with the specifications of the European Standard for clinical thermometers - Part 3: Performance of compact electrical thermometers (non predictive and predictive) with maximum device. The CE marking confirms that this is a medical device with a measuring function in the sense of the Medical Devices Act, which has undergone a conformity assessment procedure. A Notified Body confirms that this product fulfills all the appropriate statutory regulations. This unit is also **FDA Approved** via Section 510K premarket notification and is classified as a Class II product. Regulations affecting this device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898.

## Calibration check

This thermometer is initially calibrated at the time of manufacture. If this thermometer is used according to the operation instruction, periodic re-adjustment is not required. The calibration check has to be carried out immediately, if there are indications that the product does not maintain the defined error limits or if the calibration could have been affected by an external factor or by any other means. Please also observe any national statutory regulations.

#### Warranty

# Please see the enclosed warranty product registration form to complete and extend your warranty with Zoe+Ruth.

Damage resulting from incorrect use or abuse is not covered by the warranty. Battery and packaging are excluded from the warranty. Claims beyond this, including claims for damages, are excluded. If you find that the thermometer is defective and not in good function. Please just firstly check the battery before contacting Zoe+Ruth.

