



## Description of this Thermometer

EN

## Description de ce thermomètre

ES

- ① ON/OFF button
- ② Display
- ③ Antimicrobial copper coated battery compartment cover
- ④ Antimicrobial copper coated measuring sensor

This Digital Antimicrobial Medical Thermometer provides highly accurate readings over the human body temperature range. At the same time, it reduces the microbial flora and minimizes the dispersion of contagious microorganisms, providing high safety to the user.

## Antimicrobial Copper Properties

Surfaces made or covered by special copper alloys, have strong antimicrobial properties against a wide variety of microorganisms\*. Copper alloys emit antimicrobial copper ions Cu+ that whilst in contact with microbes and bacteria rupture their cellular membranes, thus destroying these microorganisms. This activity reduces the microbial flora on the coated area and – due to the "halo phenomenon" – simultaneously causes a drastic reduction in pathogens on the remaining body of the thermometer. Thermometers containing parts with antimicrobial copper alloys drastically reduce microbial flora, minimizing the dispersion of contagious microorganisms and thus providing high safety to the end user.

\*Efstathios A. Panos «The Role of Antimicrobial Copper Surfaces in Reducing Healthcare associated Infections», European Infectious Disease, Volume 5, Issue 2, Autumn 2011.

## Important Safety Instructions

- The instrument may be used only for measuring body temperature!
- The minimum measurement limit until the beep is heard must be maintained without exception!
- Ensure that children do not use this device unsupervised; some parts are small enough to be swallowed. Be aware of the risk of strangulation in case this device is supplied with cables or tubes.
- Do not use this device close to strong electromagnetic fields such as mobile telephones or radio installations. Keep a minimum distance of 3.3 m from such devices when using this device.
- Protect the instrument from impact and dropping!
- Avoid ambient temperatures above 60 °C. NEVER boil the instrument!
- We recommend this instrument is tested for accuracy every two years or after mechanical impact (e.g. being dropped). Please contact Microlife® Service to arrange the test.

**WARNING:** The measurement result given by this device is not a diagnosis! Do not rely on the measurement result only. Batteries and electronic devices must be disposed of in accordance with the locally applicable regulations, not with domestic waste.

Read the instructions carefully before using this device.

Type BF applied part

Keep dry

## Turning on the Thermometer

To turn on the thermometer, press the ON/OFF button ①; a short beep signals «thermometer ON». A display test is performed. All segments should be displayed.

Then at an ambient temperature of less than 32 °C, an «L» and a flashing «C» appear at the display field ②. The thermometer is now ready for use.

## Function Test

Correct functioning of the thermometer is tested automatically each time it is turned on. If a malfunction is detected (measurement inaccuracy), this is indicated by «ERR» on the display, and a measurement becomes impossible. In this case, the thermometer must be replaced.

## Using the Thermometer

Before use, keep this thermometer out of any physical contact, for at least 2 hours. This utilizes the antimicrobial copper properties, as described in chapter «Antimicrobial Copper Properties». The use of antimicrobial copper is a supplement to and not a substitute for standard infection control practices. Users must continue to follow all current infection control and cleaning practices. We recommend cleaning the thermometer as described in chapter «Cleaning and Disinfecting».

The preferred measuring method: When taking a measurement, the current temperature is continuously displayed and the «C» symbol flashes. If the beep is heard 10 times and the «C» is no longer flashing, this means that the measured increase in temperature is less than 0.1 °C in 16 seconds and that the thermometer can now be read.

To prolong the battery life, turn off the thermometer by briefly pressing the ON/OFF button ①. Otherwise the thermometer will automatically turn off after about 10 minutes.

## Storage of Measured Values

If the ON/OFF button ① is pressed for more than 3 seconds when turning on the thermometer, the automatically stored maximum temperature during the last measurement will be displayed. At the same time, a «M» for memory will appear on the display. About 2 seconds after the button is released, the temperature value disappears and the thermometer is ready for measurement.

## Measuring methods / Normal body temperature

In the mouth (oral) / 35.5 - 37.5 °C  
Position the thermometer one of the two pockets under the tongue, to the left or right of the root of the tongue. The measuring sensor ④ must be in good contact with the tissue. Close your mouth and breathe evenly through the nose to prevent the measurement from being influenced by inhaled/exhaled air.

Approx. measuring time: 1 minute!  
In the anus (rectal) / 36.6 - 38.0 °C

This is the most reliable measuring method, and is especially suitable for infants and small children. Carefully insert the measuring sensor ④ of the thermometer 2 to 3 cm into the anal aperture.

Approx. measuring time: 1 minute!

In the armpit (axillary) / 34.7 - 37.3 °C  
To receive more reliable results we recommend measuring temperature orally or rectally. A minimum measurement time of 3-5 minutes is recommended regardless of the beep sound.

## Cleaning and Disinfecting

Clean the thermometer with a soft, dry cloth or with a cotton tissue moistened with Isopropyl alcohol (70%). Don't let the thermometer come into contact with any chemical thinner!

Please never immerse into liquids!

## Battery Replacement

When the «▼» symbol (up-side-down triangle) appears at the display field, the battery is flat and needs replacing. To replace the battery remove the battery compartment cover ③ from the thermometer. Insert the new battery with the + at the top. Make sure you have a battery of the same type to hand. Batteries can be purchased at any electrical store.

## Technical Specifications

Type: Maximum thermometer  
Measurement range: 32.0 °C to 43.9 °C  
Temp. < 32.0 °C: display «L» for low (too low)  
Temp. > 43.9 °C: display «H» for high (too high)

Measurement accuracy: ± 0.1 °C between 34 °C and 42 °C

Operating conditions: 10 - 40 °C; 15-95 % relative maximum humidity

Storage conditions: -25 - +60 °C; 15-95 % relative maximum humidity

Battery: 1.5/1.55 V; LR41

Battery lifetime: approx. 4500 measurements (using a new battery)

IP Class: IP21

Reference to standards: EN 12470-3, clinical thermometers; ASTM E1112; IEC 60601-1; IEC 60601-1-2 (EMC); IEC 60601-1-11

Expected service life: 5 years or 10000 measurements

This device complies with the requirements of the Medical Device Directive 93/42/EEC.  
Technical alterations reserved.

## Guarantee

We grant you a 5 year guarantee after the date of purchase. Any damage caused by improper handling shall not be covered by the guarantee. The battery and packaging are excluded from the guarantee. All other damage claims excluded. A guarantee claim must be submitted with the purchase receipt. Please pack your defective instrument well and send with sufficient postage to the Microlife distributor.

§ Greek national patent No: 1007847 (20110107847)/31.10.2011;  
§ International Patent Application No: WO/2013/064847;

§ European Patent Application No: 12798356.7/17.10.2012.

## microlife®

- ① Bouton ON/OFF (marche/arrêt)
- ② Écran
- ③ Couvercle du compartiment à pile recouvert de cuivre antimicrobien
- ④ Sonde de mesure, recouverte de cuivre antimicrobien

Ce thermomètre médical antimicrobien digital délivre des mesures fiables et précises sur la plage de températures du corps humain. En même temps, il réduit la flore microbienne et réduit au minimum la dispersion des micro-organismes contagieux, permettant ainsi d'être plus sûr pour l'utilisateur.

**Propriétés de cuivre antimicrobien**

Surfaces composées ou revêtues par des alliages de cuivre spéciaux, ont une forte activité antimicrobienne contre une grande variété de micro-organismes\*. Les alliages de cuivre émettent des ions de cuivre antimicrobien Cu+ qui, en contact avec les microbes et les bactéries rompent leurs membranes cellulaires, entraînant ainsi la destruction de ces micro-organismes. Cette activité antimicrobienne réduit la flore sur la zone revêtue et – en raison de la «phénomène de halo» – simultanément provoque une réduction drastique des agents pathogènes sur le reste du thermomètre. Thermomètres contenant un alliage de cuivre antimicrobien qui réduit la flore microbienne en limitant la dispersion des micro-organismes contagieux, garantissent ainsi une sécurité et à son utilisateur.

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## Importante Instructions

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• Protect the instrument from impact and dropping!

• Avoid ambient temperatures above 60 °C. NEVER boil the instrument!

• We recommend this instrument is tested for accuracy every two years or after mechanical impact (e.g. being dropped). Please contact Microlife® Service to arrange the test.

**WARNING:** The measurement result given by this device is not a diagnosis! Do not rely on the measurement result only. Batteries and electronic devices must be disposed of in accordance with the locally applicable regulations, not with domestic waste.

Read the instructions carefully before using this device.

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## Instructions importantes de sécurité

• Cet instrument doit être utilisé uniquement pour mesurer la température corporelle.

• Toujours respectez la durée de mesure minimale en attendant que le bip retentisse.

• Ne laissez jamais les enfants utiliser l'appareil sans surveillance.

Certaines de ses parties sont si petites qu'elles peuvent être avalées. Possible risque d'étranglement dans le cas où l'appareil est fourni avec des câbles ou des tuyaux.

• Ne mettez pas l'appareil en service dans un champ électromagnétique de grande intensité, par exemple à proximité de téléphones portables ou d'installations radio. Garder une distance minimale de 3,3 mètres de ces appareils lors de toute utilisation.

• Veiller à ne pas laisser tomber l'instrument et à ne pas lui faire subir de chocs!

• Ne pas exposer l'instrument à des températures ambiantes supérieures à 60 °C. N'essayez pas de faire bouillir l'instrument!

• Nous recommandons de faire contrôler la précision de cet instrument tous les deux ans ou après un choc mécanique (par ex. chute).

• Evitez le placement de l'instrument à une température ambiante supérieure à 60 °C. Cet instrument NUNCA debe ser herido!

• Recomendamos revisar la precisión de este instrumento cada dos años o después de un impacto mecánico (p.ej., si se ha caído). Por favor, contacte al servicio técnico Microlife para concertar la revisión.

**ATTENTION:** La mesure délivrée par ce thermomètre ne constitue pas un diagnostic! Ne pas se fier uniquement au résultat de la mesure.

Les batteries et les dispositifs électroniques doivent être éliminés en conformité avec les prescriptions locales, séparément des ordures ménagères.

Veuillez lire attentivement les instructions avant d'utiliser ce produit.

**ADVERTENCIA:** El resultado de la medida dado por este dispositivo no representa una diagnóstico! No confie sólo en el resultado del dispositivo.

Las baterías y los dispositivos electrónicos se deben eliminar según indique la normativa local pertinente y no se deben desechar junto con la basura doméstica.

Lea atentamente las instrucciones antes de utilizar este dispositivo.

**Puesta en marcha del termómetro**

Para encender el termómetro, pulse el botón ON/OFF ①; un breve pitido indica que el termómetro está encendido. Se realiza una prueba de pantalla. Todos los iconos deben aparecer en la pantalla.

Si la temperatura ambiente es inferior a 32 °C, una «L» fija y un «C» parpadeante aparecen en la pantalla ②. Ahora, el termómetro está preparado para realizar la medición de la temperatura.

**Prueba de funcionamiento**

El funcionamiento del termómetro es probado automáticamente cada vez que se enciende. En caso de detectar un fallo de funcionamiento (medición imprecisa), se indica mediante «ERR» en el display.

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**Utilización del termómetro**

El funcionamiento correcto del termómetro se comprueba automáticamente cada vez que se enciende. En caso de detectar un fallo de funcionamiento (medición imprecisa), se indica mediante «ERR» en el display.

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