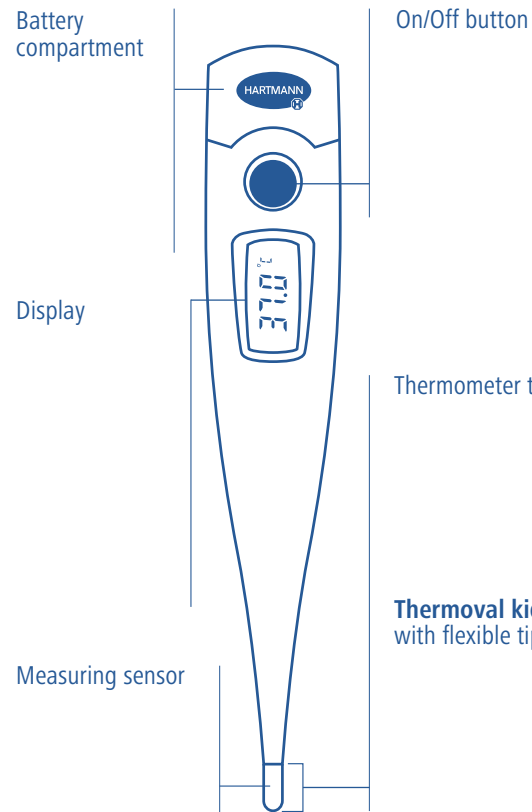


Thermoval® rapid/kids/kids flex



Normal temperature
rectal



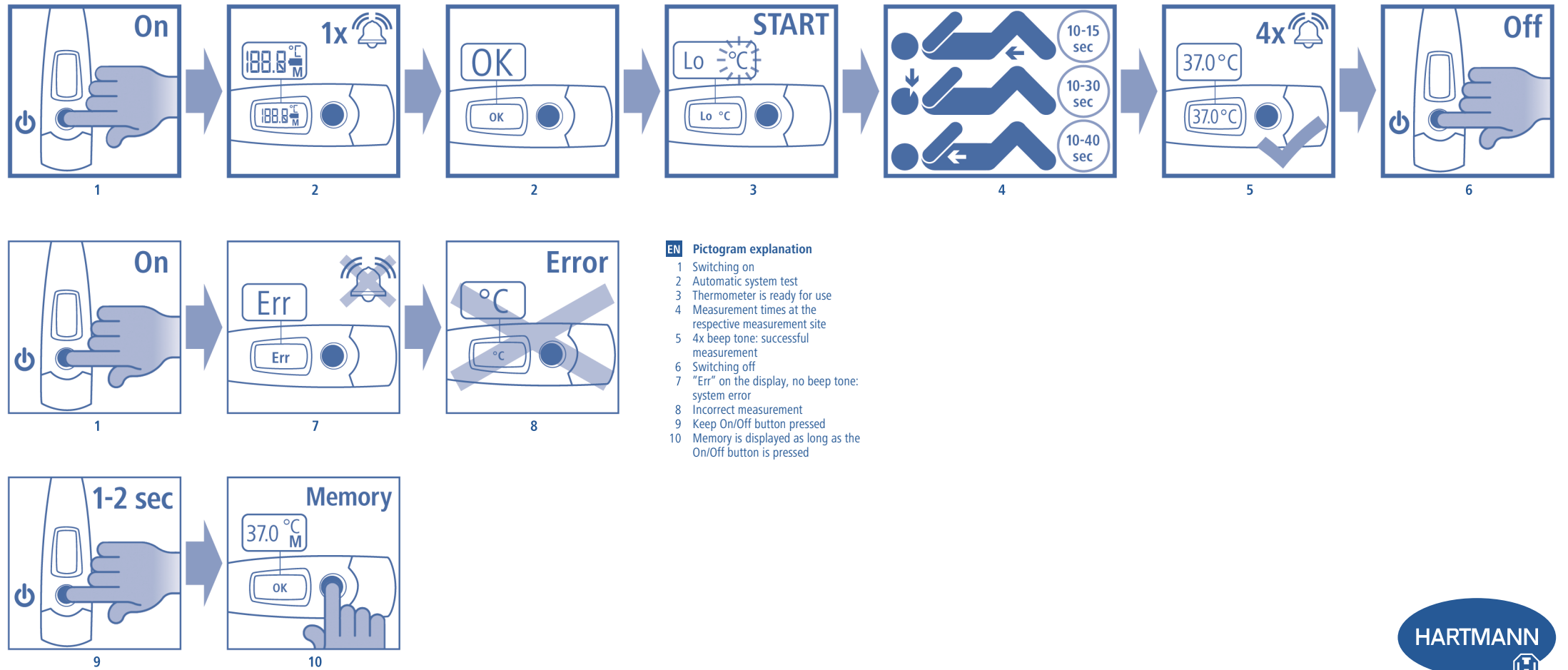
oral

35.5 – 37.5 °C

axillary

34.7 – 37.3 °C

Thermoval kids flex:
with flexible tip



EN Pictogram explanation

- 1 Switching on
- 2 Automatic system test
- 3 Thermometer is ready for use
- 4 Measurement times at the respective measurement site
- 5 4x beep tone: successful measurement
- 6 Switching off
- 7 "Err" on the display, no beep tone: system error
- 8 Incorrect measurement
- 9 Keep On/Off button pressed
- 10 Memory is displayed as long as the On/Off button is pressed

EN Instructions for use

We are pleased that you have chosen to purchase a thermometer from HARTMANN. Use this device in accordance with these instructions for use and carefully store these instructions.

Package contents
Digital thermometer incl. 1.5 V LR41 battery
Protective casing
Instructions for use

Explanation of display symbols

Digits and symbols of the display

- Battery is empty
- System error or measuring error
- Temperature below 32.0 °C
- Temperature above 43.9 °C
- Display of last temperature reading

Important instructions for use

Intended use
The Thermoval rapid/kids/kids flex thermometer is a reusable, digital thermometer for rectal, oral or axillary measurement that is intended for temporary monitoring of the body temperature of humans and can be used by laypersons and healthcare professionals in clinical and domestic settings.

■ A high temperature or persistent fever requires medical treatment, especially in small children. Please consult your doctor.

■ Self-diagnosis based on these temperature readings or administering treatment on their basis may carry an unacceptable medical risk or even worsen the symptoms. For this reason, do not interpret measured values yourself and do not use them to self-prescribe treatment. Follow the instructions provided by your doctor.

■ The body temperatures measured in the rectum, the mouth or the armpit can differ from one another. This must always be taken into account when comparing the values.

■ Please note that correct temperature measurement is influenced by numerous factors, particularly, but not limited to, the measurement site, the condition of the measurement site, duration of measurement, method of measurement/use as well as drinking, eating, smoking, bathing and physical exertion prior to the measurement.

■ If measured values seem incorrect, repeat the measurement.

Safety instructions concerning the device

■ Do not leave the device unattended near small children or persons who cannot operate it themselves. Store the device, the packaging and the batteries accordingly in an inaccessible place. Some components of the device could be swallowed.

■ Do not use the device if you detect or suspect damage. In particular the measuring tip must be undamaged.

■ Protect the device from mechanical influences, strong shocks, impacts or vibrations and do not drop it.

■ Do not bring the device into contact with hot water.
■ Do not expose the device to extreme temperatures and direct sunlight.

■ Do not modify, dismantle or repair the device yourself.

■ Do not use the device directly next to or between other electronic products or near strong electromagnetic fields, and keep at a distance from radio equipment, mobile phones, high-frequency surgical equipment and magnetic resonance imaging equipment. Portable, mobile or wireless high-frequency and communication devices, such as telephones and mobile phones (including any accessories), should be used no closer than 30 cm to the thermometer. (Further documentation in accordance with the electromagnetic compatibility standard can be requested from customer service, see contact details below).

■ Please comply with the storage, transport and operating conditions (see "Technical data").

■ The thermometer tip contains nickel and can therefore cause allergies/allergic reactions.

■ Using the thermometer on different people may not be suitable if certain acute infectious diseases are present, because germs may be transferred from one person to another despite mandatory cleaning and disinfection. Ask your treating doctor if you are unsure.

■ Applies only to Thermoval kids flex: The flexible tip must not be bent to the side by more than 45°.

If the safety instructions are not followed, the measuring accuracy, the display as well as the functionality of the device can be influenced or faulty, or a health hazard cannot be ruled out!

Operating instructions

Measuring methods

In the rectum (rectal)

This is, from the medical point of view, one of the most reliable measuring methods, because it comes very close to the core body temperature. For this method, insert the thermometer tip carefully into the anus up to a maximum of 2 cm. The usual measurement time is approximately 10 to 15 seconds.

In the mouth (oral)

There are different heat zones in the mouth. As a general rule, the oral temperature is 0.3 to 0.8 °C lower than the rectal temperature. To ensure that the reading is as accurate as possible, place the thermometer tip on the left or right of the root of the tongue. During the measurement, the sensor must have constant contact with the tissue and must be placed under the tongue in one of the two rear heat pockets. Keep your mouth closed during the ongoing measurement and breathe evenly through the nose. Do not eat or drink anything directly before the measurement is performed. The usual measurement time is approximately 10 to 30 seconds.

Under the arm (axillary)

Placing the thermometer in the armpit provides a measurement of surface temperature that can differ by around 0.5 to 1.5 °C from rectal temperature readings in adults. The usual measurement time for this method is approximately 10 to 40 seconds. It should be noted, however, that an accurate reading cannot be obtained if, for example, the armpits have been allowed to cool. In order to obtain a reading that is as precise as possible and that corresponds as closely as possible

to the core body temperature, we recommend extending the measurement time by 3 minutes.

Note regarding minimum measurement time

The measurement time depends on the measurement site. The measurement must not be finished before the signal tone is sounded. If the measuring time is prolonged beyond the displayed end of the measurement, the displayed temperature can further increase.

Carrying out the measurement

To take a measurement, press the On/Off button next to the display. A signal tone is sounded, followed by an automatic functional self-test, during which all the digital segments are visible for an optical check of the LCD display.

Upon release of the button, "ok" briefly appears on the display, followed by "Lo". As soon as the "°C" symbol flashes, the device is ready to take a measurement. During the ongoing measurement, the current temperature is continuously displayed and the "°C" symbol flashes. Once sufficient temperature stability has been reached, an acoustic signal (4x5 short signal tones) is sounded, the "°C" symbol no longer flashes and the temperature value measured up to that point in time is displayed. If the temperature measured, or the ambient temperature, is outside of the measuring range, then "Lo" or "Hi" is shown on the display.

If the ambient temperature is above 35 °C, dip the measuring tip into cold water for approximately 5 to 10 seconds before performing the temperature measurement.

After finishing the measurement, please switch off the thermometer by pressing the On/Off button. This is followed by a beep. The maximum temperature value that was determined before switching off is stored in the memory until the next measurement is performed.

In order to call up the reading memory, keep the On/Off button pressed when switching on until the reading, that was saved automatically when the last measurement was performed, appears on the display along with "M" and "°C".

Cleaning and disinfection

In order to prevent cross infections, ensure adequate hygiene by cleaning and disinfecting the device before and after each use.

■ Clean the device and the measuring sensor with a moist cloth and a mild detergent or a suitable disinfectant, e.g. 70% isopropyl alcohol solution (active substance: 2-propanol).

■ The device is waterproof. You can therefore immerse it in liquid or lukewarm water for a full cleaning and disinfection.

■ Do not immerse the thermometer in liquid for longer than 30 minutes, and do not immerse it any deeper than 15 cm.

■ Please do not use any aggressive cleaning agents or solvents as these can damage the device and cause the display to become opaque.

■ To protect it from external influences, you can store the thermometer in the protective casing.

Power supply (battery)

The battery is included in delivery and is already inserted in the device. The Thermoval device is immediately ready for use. When the battery symbol lights up, you should replace the battery. To do this, carefully remove the battery cover and then remove the battery, taking care not to pull the electronic components out of the device in the process. When closing the battery compartment, make sure that the locking mechanism snaps into place.

■ Remove empty batteries immediately and replace them with new batteries of the same type.

■ Take note of the polarity labels plus (+) and minus (-).

Disposal information

To protect our environment, empty batteries must not be disposed of in household waste. Please comply with the relevant waste disposal regulations or use public collection points.

This product is subject to the European Directive 2012/19/EU on Waste Electrical and Electronic Equipment and is marked accordingly. Never dispose of electronic equipment in your household waste. Please obtain information about your local regulations on the proper disposal. This protects the environment and human health.

Technical data

Product description: Compact clinical electrical thermometer with maximum device

Model: Thermoval rapid/kids/kids flex
Type: 32.0 to 43.9 °C
Measuring range: 0.1 °C (measuring unit: degrees Celsius)
Smallest display unit: +/- 0.1 °C for the entire measuring range
Measuring accuracy: Measurement in direct mode, intermittent (non-extrapolating)
Operating mode: Switching on, switching off, end of measurement.

Acoustic signal: 1 reading (autom. saving of the last reading)

Memory capacity: None

Acoustic fever signal: Ambient temperature: +5 to +40 °C
Relative humidity: 15 to 90%, non-condensing

Operating conditions: Ambient temperature: -25 to +55 °C
Relative humidity: 15 to 90%, non-condensing

Storage / transport conditions: Approx. 10 minutes after end of measurement (approx. 3 minutes if no measurement is performed)

Automatic switch-off function: 1.5 V alkaline manganese button cell (LR41)

Battery type: At least 4000 measurements

Battery capacity: Protection against harmful ingress of water or solid materials: IP67: Dust-proof and protected against the effects of temporary immersion

Service life (operating life): 5 years

Reference to standards: DIN EN ISO 80601-2-56:2020;

ASTM E1112-00; DIN EN 60601-1:2013;
DIN EN 60601-1-2:2016

Instructions for the metrological check

We recommend carrying out a metrological check every 2 years for devices in professional use, for example, at hospitals, medical practices and nursing homes. In addition, please also follow the national regulations specified by the legislator. Metrological checks should only be carried out by the competent authorities or authorised maintenance providers at the user's expense.

Warranty conditions

We offer a 3-year warranty for this thermometer from the purchase date and in accordance with the conditions listed below.

This device is solely intended for the purpose stated in these instructions for use. The manufacturer is not liable for damage or injuries resulting from improper handling, use or unauthorized interference.

Within the warranty period, HARTMANN will replace or repair free of charge any faulty device components caused by material faults or manufacturing errors. This does not extend the warranty period.

Accessory parts that are subject to wear and tear (battery, protective casing, packaging etc.) are excluded from the warranty. Claims for compensation are limited to the value of the product; compensation for consequential damage or injuries is expressly excluded.

Warranty claims must be made during the warranty period. Please send the device with protective casing and the purchase receipt, directly or via your dealer to the Customer Service department for your country.

Customer queries

If necessary, please contact us at the relevant address listed at the end of the instructions for any questions regarding initial startup, use and maintenance of the device, or to report an unexpected operating malfunction or incident. For a patient/user/third party in the European Union and in countries with identical regulatory regime (Regulation 2017/745/EU on Medical Devices); if, during the use of this device or as a result of its use, a serious incident has occurred, please report it to the manufacturer and/or its authorized representative and to your national authority.

Date of revision of the text: 2020-05-07, Version 3

Subject to errors and changes

HARTMANN



















Contact details for customer queries

DE – PAUL HARTMANN AG
 Service Center Diagnostic
 Friedrich-Penseler-Str. 17
 21337 Lüneburg
 E-Mail: customer.care.center@hartmann.info
www.veroval.de
 Tel.: 0800-400 400 9

AT – PAUL HARTMANN Servicevertragspartner
 UTS Geräte Service Ges.m.b.H.
 Sendnergasse 30
 2320 Schwechat
 Tel.: 0043-1 706 14 15
 E-Mail: office@uts.at
www.veroval.at

CH – IVF HARTMANN AG
 Victor-von-Brunns-Strasse 28
 Postfach 634
 8212 Neuhausen
 Tel: +41 (0)52 674 31 11
 E-Mail: info@ivf.hartmann.info
www.veroval.ch

Explanation of symbols

	Follow instructions for use
	Medical Device
	Manufacturer
	Date of manufacture
	Batch code
	Catalogue number
	Caution (Please note)
	Temperature limit
	Humidity limitation
	Protection against electric shock (type BF)
	Unique Device Identifier
	Distributor
	Protection type due to housing
	Symbol for the marking of electrical and electronic equipment
	Dispose of packaging in an environmentally responsible way
	Dispose of packaging in an environmentally responsible way
	Dispose of packaging in an environmentally responsible way
	Cardboard recycling code

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