TECHNICAL **CHARACTERISTICS**

THERMOFOCUS® ANIMAL Non-contact infrared thermometer

Resolution: 0.1

Room temperature working range: -7/55°C 19.4/131.0°F

When the room temperature is lower than 16°C (60.8°F or higher than 40°C (104.0°F) accuracy and the operating range are not guaranteed and the display shows "Lo.5" or "Hi.4" respectively and the value alternate

Body temperature readings Measurement range: 32.0/43.5°C (89.6-110.3°F)

Accuracy	from 32.0 to 35.9°C:	±0.3°C
	from 36.0 to 39.0°C:	±0.2°C (2
	from 39.1 to 42.5°C:	±0.3°C
	from 42.6 to 43.5°C:	±1.0°C

from 89.6 to 96.6°F: ±0.5°F Accuracy from 96.7 to 102.2°F: ±0.4°F⁽²⁾ from 102.3 to 108.5: +0.5°E from 108.6 to 110.3°E: +1.8°E ²⁾ The ASTM E1965-98-2009 standard requires ±0.2°C

(±0.4°F) accuracy for infrared thermometers in the 37-39°C (98.6-102.2°F) temperature range while th ASTM E667-86 and E1112-86 standards require ±0.1°C (±0.2°F) precision for mercury and electronic thermometers in that same temperature range.

Other readings

Measurement range: 1.0/55.0°C (33.8-131°F)

	from 1.0 to 31.9°C:	±1.0°C
Accuracy	from 32.0 to 35.9°C:	±0.3°C
°C	from 36.0 to 39.0°C:	±0.2°C
-	from 39.1 to 42.5°C:	±0.3°C
	from 42.5 to 55.0°C:	±1.0°C
	from 44.6 to 89.5°F	±1.8°F
Accuracy	from 89.6 to 96.6°F	±0.5°F
°F	from 96.7 to 102.2 °F	±0.4°F
	from 102.3 to 108.5°F	±0.5°F
	from 108.6 to 131 °F	±1.8°F

	Power supply:	4 AAA (LR03) alkaline batteries - 1.5 V
	Life of high quality batteries:	up to 3 years or 10,000 readings (depending on use)
	Dimensions:	m 165 x 40 x 22 (6.5 x 1.45 x 0.86 inches) - including cap
	Weight:	gr. 92 (3.17 oz.) - batteries included

Distance from the subject: calculated using an representation of the subject: calculated using an representation of the subject of the subj optical aiming system (approximately 3 cn inches).

Large, clearly visible display

Keep in a clean, dry place, preferably at a temperature ranging between +16 and +40°C (60.8 and 104° F). Expected life: 10 years.

Thermofocus Animal is a veterinary medical device clinically tested at veterinary studios and university departments in Italy, UK, Japan.

cnimed srl, P.le Cocchi, 12 - 21040 Vedano Olona (VA) - Italy undertakes full responsibility for this product's compliance with the reference standards.

Thermofocus Animal is compliant with the CELEN 60601-1, and CEI EN 60601-1-2 Internally powered equipment for continuous

The aiming leds of Thermofocus emit low luminous

radiation largely under the level foreseen from IEC 60825-1:1993+A1:1997+A2:2001 Standard for Class 1 lights (class 1, wavelength: 610 nm; n power: Pmax<1mW)



Dispose of the device in compliance with applicable legislation regarding electrical equipment and batteries. X



Non contact thermometer Termometro senza contatto





THERMOFOCUS® NIMAL

Veterinary medical device, clinically tested / Dispositvo medico veterinario clinicamente testato

Patents no. / Patenty n° MI 1.284.119. EP 0909.377. US 6.196.714, IL 127.876, JP 504769/98 EP 1.283.983. US 7.001.066. US 8 821 010 and others international Patents Pending / e altri brevetti internazionali depositati

CE

Manufactured in Italy by Prodotto in Italia da TECNIMED srl

12. P.le Cocchi 21040 Vedano O. (VA) - ITALY info@tecnimed.eu www.tecnimed.com

Tel. +39 0332 402350





Cod. 96606EI- r.00 150213

INDICATION for USE

8. Do not use the thermometer in contact

9. Do not use the thermometer in contact

with any parts of your pet's body.

with objects or liquids, keep it away

from sources of heat and out of direct

sunlight. Should water seep into the

thermometer, contact your Dealer

immediately for Technical Service.

10. To prevent dust or dirt infiltrations in

11. Do not use the device close to

of strong electromagnetic fields.

12. Avoid knocking and dropping it,

1. Failure to observe the above-

mentioned precautions (par. #2.1)

may lead to very low or very high

temperature readings, which

cannot be attributed to product

2. Do not use Thermofocus Animal

3. No harm may be caused when the

to take the temperature of human

aiming lights are pointed in the eves:

the beams are totally harmless. They

are not lasers but LEDs in compliance

instrument and must not be used by

children. It is not a toy. Keep it out

of the reach of children or animals

or persons with limited sensorimotor

skills. Small parts can be ingested or

substitute veterinary consultation.

Tell your veterinary which type of

difficult to take a correct reading, turn

the aiming lights on before bringing

the thermometer close to your pet

or take the reading in one of the

with the body, it does not require any

3. HOW it WORKS

Thermofocus Animal detects the infrared

radiation coming from your pet's body.

Any animals' body is subject to heat

dispersion and, according to their race,

is more or less covered with fur and

Nonetheless, eyes are not covered with

fur and always highly vascolarized, and

moreover they replicate the actual

internal body temperature. They are

therefore the ideal point for a precise

It is important to remember that each

animal's individual temperature varies

according to the measurement's site and

throughout the day, also in response to

Moreover, the body temperature can be

affected by the outside temperature and

other factors may also come into play.

button is pressed for the body tempera-

ture reading, the Thermofocus Animal

software automatically applies a

correction factor according to the

ambient conditions, thus giving a

resulting value comparable to your pet's

4. HOW to USE it

4.1 Body temperature reading

EYE

Insert batteries as explained in par. #10

and get familiar with Thermofocus Animal:

before taking the temperature on your

pet as explained here below, we suggest

you practise by aiming the thermometer

at any surface (such as an object or wall

Therefore, when the "dog&cat"

body temperature to be taken.

7. Since it never comes into contact

"disposable" protection covers.

5. Using this thermometer may not

6. If your pet's fidgeting makes it

thermometer you are using.

alternative zones.

vascolarized.

physical effort.

internal temperature.

- par. #4,4).

4. The unit is a delicate measurement

does not work properly.

malfunctions

with the IEC 60825.

beings.

inhaled

subject making a call with a mobile or

cordless telephone or in the presence

and do not use it if damaged or if

2.2. Attention

the tip, always close the cap.

Thermofocus[®] Animal is an infrared thermometer intended for intermittent measurement of animal body temperature.

1. INTRODUCTION

Dear Client, thank you for buying Thermofocus[®] Animal, the non contact thermometer designed to take your pet's body temperature. Thermofocus Animal is the evolution of

Thermofocus®, the world's first noncontact thermometer meant for human With Thermofocus, Tecnimed introduced

the non-contact measurement, thus revolutionizing the way temperature is taken. Tecnimed thermometers, designed and produced in Italy and provided with a technology constantly refined and covered by patents, are unsurpassed leaders on the market. After revolutionizing and simplifying the

way human beings' temperature is taken. Tecnimed has thought of your pets as well Usually, animals' internal temperature is

taken by introducing a traditional thermometer in their rectum, a procedure which is invasive and annoying for the animal, and uncomfortable for the person taking the measurement. Thermofocus Animal is able instead to

take your pet's body temperature at a distance and on its eye: without touching its skin, without bothering it, in few seconds and in a simple way Should the measurement on the eve be

not possible, you can take the temperature on an alternative area (par. #4.2), always with no contact and in a non invasive way. You can search for a point comfortable for both you and your pet.



Read carefully before use

2.1 Precautions

1. Use the thermometer in a draftfree room, having a steady temperature preferably between 16 and 40°C (60 8-104°F).

- If the thermometer was stored in another room (or even in a drawer. cabinet, etc.), before using it, run the manual calibration procedure (MQCS, par. #6). Alternatively, without touching the unit, wait 10-30 minutes for the temperature to stabilize.
- Do not take a temperature reading if your pet is sitting in a draft or if it has: been moving, walking or running; · come from a ventilated room or from an area having a temperature different from that of the room where
- the thermometer is used: · been exposed to agents that could alter its temperature, e.g.
- shower, hair-drier, etc., In all the above cases, wait a few minutes for the pet's temperature to
- stabilize. . The temperature reading is taken in the area included in the two light arches. Make sure that this area is
- fur-free. If necessary, brush any hair The temperature reading may be affected by local infections or injuries. The waveguide (see figure 1) is the most delicate part of the device. It is composed of a concave mirror that must be kept clean and intact.
- Any damage, dust or dirt would alter the temperature reading. Do not handle the thermometer, and in particular the tip (fig. 1), for longer than strictly necessary before taking the reading.

Take your pet's body temperature by proceeding as follows:

- · Open the protective cap, by rotating it 90° (fig. 2).
- Press the "dog&cat" button and hold it down: the thermometer will switch on and two aiming arches will light up, allowing you to find the correct distance.
- Move the thermometer perpendicularly to your pet's eve until you see a complete circle around the eve (fig. 3). If the thermometer is too far away vou will see two crossed arches (fig. 4), if it is too close you will see two separate and smaller arches (fig. 5). When you see a complete circle around the eye (fig. 6), the thermometer is at the right distance. While keeping the button pressed, take a close-up scan, horizontally and perpendicularly to the eve.
- Release the button and keep the thermometer steady while the lights flash.
- Read the temperature value on the display. If necessary, you may take another reading immediately.

 Close the protective cap. When the thermometer remains idle for 20 seconds, it reverts to stand-by mode and will display the room temperature for 4 hours before shutting off. You may change the related setting by proceeding as described in par. #5.

Thermofocus Animal aiming lights are totally safe: they are not lasers but simple LED diodes, sometimes used on human beings as well

Remember that if the thermometer was stored in a room different from the one in which the measurement is taken, wait 10-30 minutes for the temperature to stabilize or run the manual calibration procedure (MQCS - par. #6) before using it. If your pet comes from outside or from a different room, wait from 10 to 30 minutes (depending on the difference in the rooms temperature) before taking the reading, for your pet's temperature to stabilize

4.2 Body temperature reading: alternative areas

Should you find it difficult to take your pet's body temperature on its eye, you can use one of the possible alternative

Rectal area:

Lift your pet's tail up and, while keeping the "dog&cat" 🔊 button pressed, take a close-up scan horizontally and perpendicularly to the rectal area. Auricle:

The light circle may be difficult to see. Just enter the auricle as much as possible, but without touching it, and address the lights toward its bottom.

Gums area Lift your pets upper lip and take the temperature on its gums (do not use this area immediately after meals)

4.3 First use: setting

Thermofocus Animal has been set on the basis of results of several tests made on pets and farm animals of different races.

Nonetheless, it is important to know that there is not such a thing as a unique "normal" body temperature common to all animals.

It may thus be necessary to set Thermofocus Animal in accordance with your own pet and with the chosen measurement area, and adjust the thermometer to your pet's standard temperature, by proceeding as follows: 1) to adjust your thermometer to your pet's body temperature, make sure: your pet is healthy;

your pet is stabilized (it has been for 10-30 minutes in the room in which you are taking its temperature):

- you know which is your pet's standard temperature (vou may ask vour veterinary or, if you are used to, you may take once again its temperature with a traditional

thermometer). Otherwise, refer to the following table. Tab 431

Tab. 4.3.1			
ANIMAL	AVERAGE VALUE		
Dog	38.8°C - 101.8°F		
Cat	38.7°C - 101.6°F		
Horse	38.0°C - 100.4°F		
Rabbit	39.0°C - 102.2°F		
Goat	39.7°C - 103.5°F		
Bovine	38.6°C - 101.5°F		

2) Take the temperature with Thermofocus Animal on the chosen area as indicated on par. #4.1 and #4.2. Should the temperature taken with Thermofocus Animal on the chosen area be substantially different from the standard temperature (as indicated by the veterinary, as measured with a traditional thermometer or as taken from the table 4.3.1), then you may set Thermofocus Animal temperature by proceeding as follows:

 take note of the spotted difference: it will be the correction factor.

- push the "+/-" 😢 button and hold it down; the display will read for two seconds 0.0 (or the possible correction factor which you inserted previously), followed by a flashing 0.0 which will be the starting point for the new correction factor.
- Keep the button pressed: after 6 seconds, you will see the settings move increasingly from 0.1° to 5.0°C (0.2 to 10°F) and then from -3.0° to +5.0° (-6 to 10°F) again.
- · When approaching the chosen setting, release and push again the button to slow the speed down, until you see the chosen value.

The thermometer is now ready for use and the new corrective value (which will automatically include any other previous corrective value) will be kept in the device's memory.

Example: temperature taken with Thermofocus Animal (including any corrective value previously set): 39.1°C (102.4°F). Temperature indicated on the table: 38.7°C (101.7°F). The CURRENT difference is +0.4°C (+0.8°F). Insert a corrective value of -0.4°C (-0.8°E)

The correction factor's variation range is dynamic and changes to always keep the -3/+5°C (-6/+10°F) range with respect to the correction factor set by the producer. This procedure must be performed,

ONLY if necessary, at first use and for each animal.

You may download the apposite table from the website www.tecnimed.com: fill it out and keep it as a reference.

4.4 Other readings

Thermofocus Animal may also be used to take the temperature of objects, liquids or other surfaces in the 1-55°C (33.8-131°F) temperature range. For example:

- 1. temperature of food, doghouse, bathwater, etc. In the latter case, remember to mix the liquid well before taking the reading (with hot liquids or foods, take the reading quickly to prevent condensation from forming on the waveguide (fig. 1) and wait 30 minutes before taking another
- reading); 2. room temperature by pointing the thermometer against a wall or a piece of furniture;
- 3. temperature of a wound, inflammation, scar, burns, or to detect circulations problem. You may also use Thermofocus Animal to check the temperature of stimulated muscles. for instance on horses (professional use)

Proceed as in the case of a body temperature measurement (par. #4.1). but press the "home" fig. 7). These measurements must be considered as relative rather than absolute values. If taken on the skin, they will show the difference in

temperature between two close or symmetrical areas In these cases, the presence of fur, as long as equally spread on the concerned areas, is not critical.

4.5 Room temperature

mode, the room temperature remains displayed automatically for 4 hours after the last reading is taken (where setted in "Peak Performance" mode). As alternative, you can take the room temperature by pointing the thermometer against a wall or a piece of furniture, by pressing the "home" button (see also par.#4.4).

5. HOW to CHANGE the

reading).

modified as follows:

release the button.

another setting.

as follows:

display

pet is.

the letters RE

for 15 minutes.

Depending on where it is to be sold, your thermometer leaves the factory preset Celsius (°C) or Fahrenheit (°F) degrees;

When the thermometer is in stand-by

SETTINGS

 "Energy saving" setting (oFF): display off after 20 seconds from last reading) or "Peak Performance" setting (on 🟠: display on for 4 hours after the last

If necessary, these settings may be

1. while the thermometer is switched off or in stand-by mode, press and hold both the "+/-" 🔁 and "home" 🍙 button for about 8 seconds until the display changes, showing the settings in sequence: °C; °F; on , oFF , oFF .

2. When the desired setting appears,

Only one setting can be modified at a time. Repeat the procedure to change

6. ROOM TEMPERATURE CALIBRATION

If the thermometer is handled for a long time or if it comes from a location having a temperature different from that in which the reading is taken, you may let the device stabilize automatically by leaving it for at least 15 minutes in the room in which the measurement has to be taken.

Otherwise, run a manual calibration; with the Manual Quick Calibration System (MQCS) you may correct immediately the internal temperature of the device and adjust it to the temperature of the room in which your pet is, proceeding

• press the "dog&cat" 🚯 button and the "+/-" 🖄 button simultaneously: the symbol CAL will appear on the

 Within 10 seconds, open the cap. press the "home" in button and take the temperature of an internal wall close to the area in which your

Release the button: the lights will flash twice **slowly** and the display will show the room temperature, together with

The thermometer keeps the calibration

To ensure a reliable temperature reading, do not aim the thermometer at a surface having a temperature obviously different from the one of the room where your pet is. If you take the reading indoor, do not focus the thermometer on outside walls, windows, sources of heating or cooling (radiator, air conditioner, lamp, computer, surface in contact with the human body, etc.). This system enables the thermometer to take sufficiently accurate readings. When the thermometer is in stand-by mode, the "RE" letters appear on the display indicating that a manual quick calibration has been performed.

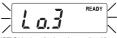


36.8; READY 4----

DESCRIPTION: during normal operation, the battery wmbol appears on the display. PROBLEM: the batteries are low but many measurements may be still taken. SOLUTION: obtain new batteries for changing them when the signal E.1 (below) appears.

DESCRIPTION: "E.1" and the battery symbol appear on the display, or the unit does not turn or

PROBLEM: the batteries are dead. SOLUTION: remove the batteries immediately and replace them when necessary (see par. #10).



DESCRIPTION: the display shows "Lo.3" and the value alternately

PROBLEM: the temperature is between 32 and 33.9°C (89.6 and 93°F). If the measurement was taken to get the internal body temperature, the temperature seems to be too low.

SOLUTION: check that the guide wave is not dirty or damaged, and that your pet has not just come from a location with a lower temperature. Otherwise, verify the thermometer's settings.



DESCRIPTION: the display reads "Lo.3 PROBLEM: if the "dog&cat" button has been pressed, the temperature appears to be too low (<32°C/89.6°F). If the "home" button has been pressed, the temperature detected is under the limit for unit operation (<1°C/33.8°F). SOLUTION: in the first case, make sure that the

instructions have been followed. In the latter case the temperature reading cannot be taken

DESCRIPTION: the display shows "Hi,2" and the

PROBLEM: temperature of 40°C (104°F) or more If the measurement was taken to get the internal body temperature, it indicates high fever. SOLUTION: consult a veterinary

READ 8,2

DESCRIPTION: the display reads "Hi.2" PROBLEM: if the "dog&cat" button has been pressed: the body temperature appears too high (=/>43.5°C/110.3°F). If the "home" button has e limit for unit operation (>55°C/131°F). SOLUTION: in the first case, make sure that the instructions have been followed. In the latter case, the perature reading cannot be taken

READY 10.5

DESCRIPTION: the displays shows "Lo.5" and the value alternately. PROBLEM: the room temperature is below 16°C

(60.8°F). SOLUTION: the temperature reading can be taken

but accuracy is not guaranteed

L o.5

DESCRIPTION: the display reads "Lo.5" PROBLEM: the room temperature is under the device's operative range: -7°C (19.4°F). SOLUTION: move to another, warmer room, and wait for your pet's stabilization.

 $H_{I,Y}$

DESCRIPTION: the display shows "Hi.4" and the value alternately. PROBLEM: the room temperature is above 40°C

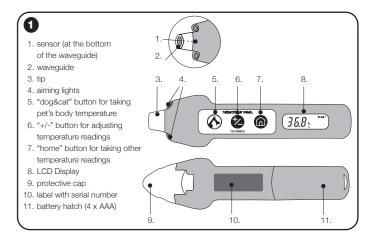
SOLUTION: the temperature reading can be taken but accuracy is not guaranteed.

DESCRIPTION: the room temperature displayed is accompanied by the symbol RE. MEANING: the thermometer has undergone manual calibration (MQCS).



DESCRIPTION: the display reads "E.8". PROBLEM: the thermometer was moved before the light started flashing, or the area is subject to

a electromagnetic fields. SOLUTION: wait until the light starts flashing before moving the thermometer; make certain that there are no mobile or cordless telephones in the vicinity.



8. TROUBLESHOOTING

- 1. The display does not turn on: the batteries are completely dead or incorrectly inserted; replace or reinsert them (par. #10)
- 2. Two arches are visible on the measuring area:

- the unit is not placed at the correct distance: move the thermometer forward or back until you see a complete circle (fig. 5).

- 3. The circle is hard to see: - there is too much light in the room, or the measuring area is very dark or covered by fur; cast a shadow over your pet or, in the case of auricle, enter the auricle as much as possible. but without touching it, and address the lights toward its bottom.
- 4. The wavequide (fig. 1) is damaged or water has seeped into the thermometer
- contact your Dealer immediately for technical service
- 5. The thermometer temperature reading is too low: - make certain that the warnings

(par. #2) have been met:

- check that the waveguide (fig. 1) is not soiled or damaged; if it is, clean it as indicated in par. #9 or contact your Dealer for technical service; - make sure the thermometer is perpendicular to the measuring area (fig. 3);

- set the thermometer (par.# 4.3) 6. The thermometer temperature
- reading is too high: - make certain that the warnings have been met (par. #2);

set the thermometer (par.# 4.3).

7. The thermometer seems to be blocked. does not turn off/does not go on standby or the aiming LEDs remain on after the button is released: - reset the thermometer by removing

and reinserting the batteries.

9. CLEANING

CLEANING THE WAVEGUIDE: the thermometer waveguide is delicate. Therefore, when the thermometer is not being used, we recommend that you always keep the cap on. However, if you need to remove dust or dirt from the waveguide or sensor at its base, use a cotton swab that has been slightly dampened with alcohol. Remove all dirt and make certain that nothing accumulates at the bottom of the waveguide where the sensor is located. Do not use any other objects or liquids as the surface of the waveguide or sensor could easily be scratched or damaged. Never let any excess liquid penetrate into the waveguide and sensor.

CLEANING THE THERMOMETER BODY: use a soft cloth dampened with soap and water and possibly re-wipe with a sodium hypochlorite disinfectant.

DO NOT USE the thermometer for at least 30 minutes after cleaning.

10. REPLACING the BATTERIES

- Use your nail as showed in figure 10. or a pen and press inside the hole on the back side of the device or insert the edge of a small coin in the crevice and apply a gentle leverage (fig. 11). Remove the battery hatch.
- Remove the old batteries and dispose of them as required in the containers provided for this purpose.
- · Insert 4 new AAA LR03 batteries, preferably alkaline, carefully complying with the position indicated in their housing
- Close the hatch.

After changing the batteries, let the thermometer stabilize for 20 minutes before taking a temperature reading or perform the MQCS.

Remove the batteries if you do not expect to use the thermometer for a long time.

WARRANTY

Tecnimed s.r.l. guarantees this product against any lack of conformity for 24 months as of the date of purchase (indicated on the cash register receipt or other fiscal document). Follow the instructions given by your Dealer for the technical service procedures.

his warranty does not cover the batteries and any damage caused by defective or run down batteries or damage to the casing due carelessness or improper use. The warranty is also voided if

- the product is tampered with, damaged or used improperly

- the label on the back bearing the serial number is removed, damaged or rendered illegible. the product is opened or repaired by

unauthorized personnel.

the product has been damaged due to non-compliance with the instructions given in this manual.

If Technical Service is required, contact the Manufacturer or your Dealer.

In case the Product was purchased through an Online-store, warranty service can only be provided through the Internet Seller, where the product was purchased.

In case of any lack of conformity, the product will be either repaired or replaced, as decided by the Manufacturer or Dealer, at their sole discretion Any repaired or replaced product does not extend the original warranty beyond the period of 2 years from original date of purchase

If, after technical evaluation, the Product is found not to be covered by the terms and conditions of this Warranty (because no lack of conformity are found). Tecnimed reserves the right to charge a handling fee for technical verification and delivery. Under no circumstance may Tecnimed be held responsible for damages related to the improper use of the product or for costs exceeding the original price of the product.

