



# VISIOFOCUS® VET

## **VisioFocus® Vet, a technological innovation**

VisioFocus® Vet is the evolution of Thermofocus®, the world's first non-contact thermometer intended for human use and also the evolution of Thermofocus Animal and of VisioFocus.

With Thermofocus®, Tecnimed introduced, first in the world, the non-contact measurement, thus revolutionizing the way to take the temperature. The Tecnimed's 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 the animals.

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.

VisioFocus Vet is able to take the body temperature of animals at a distance and without touching their skin, without bothering them, in few seconds and in a simple way.

VisioFocus Vet does not use laser radiations, it is safe and harmless.

VisioFocus Vet can also be used to measure the temperature of the pet food, bath water, kennel etc., thanks to its accuracy over a wide range of temperatures.

VisioFocus Vet is protected by a number of patents and patents pending filed internationally.

VisioFocus® is a trademark registered in Italy and extended internationally.

## **Technical background**

All objects and living beings emit infrared radiations of varying wavelength in relation to their surface characteristics. Particularly, the animal's eyes emit infrared radiations of wavelength between 5 and 14 micrometers.

VisioFocus Vet uses a sensor (thermopile) that, when stimulated by infrared radiations, emits an electrical signal, which is amplified and then converted into a digital signal which is elaborated in a sophisticated way using exclusive algorithms according to the temperature of the environment.



## **Temperature measurement.**

VisioFocus Vet is able to take the temperature of animals at a distance and on their eyes: without touching their body, without bothering them, in few seconds and in a simple way.

Any animals' body is subject to heat dispersion and, according to their race, it is more or less covered with fur and vascularized. Nonetheless, eyes are not covered with fur, they are always highly vascularized, and moreover their temperature is correlated to the actual internal body temperature. They are therefore the ideal point for a precise body temperature to be taken.



The right distance between the eye and the thermometer for a correct measurement is easily determined thanks to a LED system (normal lights which are totally safe) emitting two couples of light arcs. When you press and hold down one of the buttons, the LED system turns on. As the thermometer is moved closer to the eye and reaches the right distance (approx. cm 6), the two couples of arcs converge to form a circle on the hair around the eye.



Too far



too close



correct distance

When you are at the correct distance, release the button and keep the thermometer steady for less than one second until the lights flash and the temperature appears on the LCD display. There is no need to concern if the aiming lights are pointed into the eyes: the beams are not laser lights and are absolutely harmless.

Should the measurement on the eye be not possible, you can take the temperature on your pet's rectum area, auricle or on the gum, with no contact and in a non-invasive way. You can search for the more comfortable area for both you and the animal.



## **VisioFocus Vet automatically adjusts to the environment**

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 physical effort. Moreover, the body temperature is affected by the outside temperature and other factors may also come into play. Therefore, when one of the buttons is pressed for the body temperature reading, the VisioFocus Vet software automatically applies a correction factor according to the ambient conditions, thus giving a resulting value comparable to your pet's internal temperature.

If the thermometer is handled for a long time or if the device is coming from a room with a significantly different temperature, you can let the device stabilize automatically by leaving it for at least 5 minutes, without touching it, in the room in which the measurement has to be taken, or you can run a manual calibration to correct the thermometer temperature.

**Manual Quick Calibration System (MQCS):** it is possible to correct immediately the internal temperature of the device in just 3 seconds and adjust it to the temperature of the environment in which the animal is. The ambient temperature must preferably be in the 5-40°C temperature range. However, the system can work in environments from -7 to +45 °C (19.4 to 113°F) but out of 16-40°C (60.8-104°F) the accuracy is not guaranteed. The thermometer keeps the calibration for 15 minutes.

To ensure a reliable temperature reading, while making MQCS do not aim the thermometer at a surface having a temperature obviously different from the one of the environment where the animal 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 or animal body, etc.).

If you are taking the temperature outdoor do not make the MQCS on the walls of a heated house. You can make the MQCS on the trunk of a tree or on the floor no matter if asphalt, concrete, soil, grass.

## **VisioFocus Vet is suitable for all animals**

Due to the fact that the temperature of the animals changes depending on the breed and type of animal, but also in function of the size, VisioFocus Vet has been designed to be able to adapt to all animals.

VisioFocus Vet has been set according to averages statistically obtained from several tests made on pets and farm animals of different races. It is important to know that there is not such a thing as a unique "normal" body temperature common to all animals. If necessary, it is possible to set VisioFocus Vet in accordance with each kind of animal and with the chosen measurement area and adjust the thermometer to a specific animal standard temperature.

Indeed, using the VisioFocus Vet App it is possible to calibrate the three buttons to align them to a specific kind of animal and/or to a specific area of measurement.

## **VisioFocus Vet is multipurpose**

VisioFocus Vet can also be used to take the temperature of objects, liquids or other surfaces in the 1-80°C (33.8 to 176.0°F) temperature range.

For example:

- temperature of food, doghouse, bathwater, etc.
- room temperature by pointing the thermometer against a wall or a piece of furniture
  
- temperature of a wound, inflammation, scar, burns, circulations problem. You may also use VisioFocus Vet to check the temperature of stimulated muscles, for instance on racing horses (professional use).

Proceed as in the case of a body temperature measurement but press the third button (if it is not set for a specific animal).

Indeed, the third button by default gives a real temperature with no adjustment at all.

However, if you prefer you can set it to a third specific animal (in addition to the buttons 1 and 2). These measurements must be considered as relative rather than absolute values. If taken on the skin, they will show the difference between two neighboring or symmetrical areas. In these cases, the presence of fur, as long as equally spread on the concerned areas, is not critical.

The device is supplied by 4 AAA batteries (normally included in the box) that have a life of 30,000 measurements or 3 years, according the use. The only necessary maintenance is to protect the waveguide with its built-in protective cap when the device is not in use.

## **Manufacturing and QA**

VisioFocus Vet is manufactured by Tecnimed under the ISO 9001:2015, ISO 13485:2016 Quality System and according to EN 60601-1, EN 60601-1-2, EN 62471, EN ISO 14971 Standards and according to RoHS directive (Pb-free).

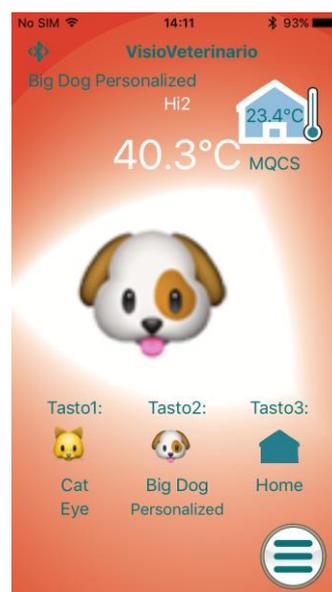
The production, calibration and testing of VisioFocus® VET are performed by Tecnimed in a room with controlled temperature.

## **Bluetooth**

VisioFocus Vet is provided with Bluetooth system and you can connect it to your smartphone. Initially iOS and later also Android.

Using the VisioFocus Vet App you can record a large number of data and you can also easily change the setting of each button. For example, you can set the three buttons with the more commons animals you need to take the temperature to. For example, the button 1 for big dogs, the button 2 for cats, the button 3 for small dogs. But if necessary, with the smartphone you can easily change any of the button with the adjustment necessary for horses or cows or elephants and so on.

Provisional graphics



## TECHNICAL DATA

<b>VisioFocus Vet 06610</b>	<b>For animals</b>
<b>No. of buttons</b>	3
<b>LED lights color</b>	Amber
<b>Protective cap</b>	Standard
<b>Display backlight</b>	5 different colors
<b>Room temperature detection</b>	Yes
<b>MQCS (Manual Quick Calibration System)</b>	yes
<b>AQCS Automatic Quick Calibration System)</b>	Yes
<b>Batteries (normally included)</b>	4 AAA/LR03 type (preferably alkaline)
<b>Batteries life</b>	3 years or 30.000 measurements (depending on use)
<b>Resolution</b>	0.1°C (0.1°F)
<b>Body temperature measuring range</b>	32.0/43.5°C (93.2/108.5°F)
<b>General measuring range (out of the body)</b>	1.0/80°C (33.8/176°F)
<b>Room temperature working range:</b>	
Measurement on animals	-7/+45°C (50/113°F) please note that under +16°C the LCD display alternates the value to Lo5 and the accuracy is not guaranteed
Measurements with button 3 if set on objects measurements	-7/+45°C (50/113°F)
Correction factor range with the APP	-9,9/+9,9 °C (-17.8/+17.8°F) dynamic range with respect to the correction factor set by the producer.
Distance from the pet during operation: about 6 cm (2.4 inches), set through an optical signal	
Dimensions: 144(approximate) x 43.5 x 21.5 mm (5.66 x 1.71 x 0.85 inches) - including cap Weight: 98 gr. (3.45 oz.)0- batteries included	

<b>Name :</b>	<b>VisioFocus Vet 06610</b>
<b>Description :</b>	Infrared non-contact thermometer which allows an instant, hygienic and accurate measurement of animal temperature without any contact with the animal
<b>Manufacturer :</b>	Tecnimed srl, plant in Vedano Olona, Varese
<b>Project :</b>	Tecnimed srl, Vedano O. (VA) Italy
<b>Owner Patents :</b>	Tecnimed srl, Vedano O. (VA) Italy
<b>Patents :</b>	US 7.001.066, US 7,651,266B2, US 8,128,280, US 8,821,010, EP 1.283.983, EP 1,886,106, EP 2,577,242 B1, and other International Patents Pending
<b>EC conformity :</b>	LVD (2014/35/UE) and EMC (2014/30/UE) Directives
<b>Quality system</b>	ISO 9001:2015 and ISO 13485:2016 EN 60601-1, EN 600601-1-2, EN 14971
<b>Standards:</b>	ASTM (American Society for testing Materials) E 1965-98 Accordance with RoHS (Pb-free) directive

### VisioFocus Vet packaging

VisioFocus Vet will be available in a white neutral box with a sticker with the data of the product.

