



VISIOFOCUS[®] ANIMAL



VisioFocus[®] Animal, a technological innovation

VisioFocus[®] Animal 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 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 Animal 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 Animal does not use laser radiations, it is safe and harmless.

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

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

VisioFocus[®] is a trade mark registered in Italy and extended internationally.

Technical background

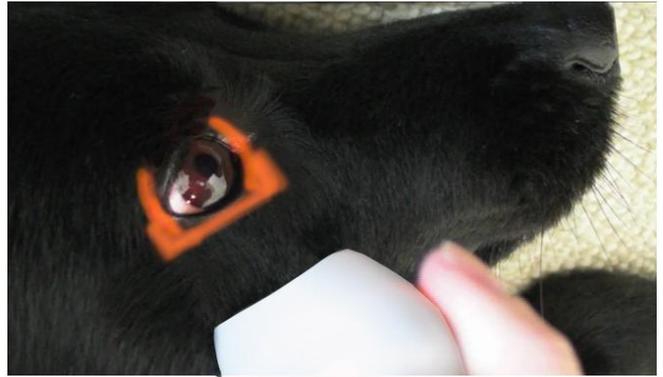
All objects and living beings emit infrared radiations of varying wavelength in relation to their surface characteristics. Particularly, the animal eyes emit infrared radiations of wavelength between 5 and 14 micrometers.

VisioFocus Animal 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 Animal is able to take the temperature of your pets 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) projecting two arches and a partial rectangle.

When you press and hold down the  button, the LED system turns on. As the thermometer is moved closer to the eye and reaches the right distance (approx. cm 6), the two arches will result inside the partial rectangle as in the pictures below.



Too far



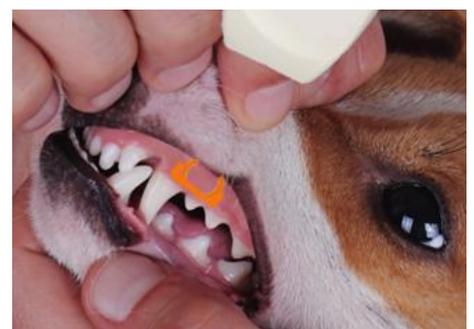
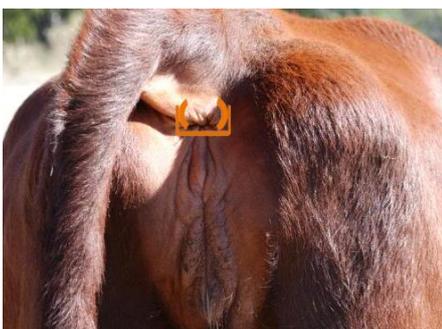
Too close



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 worry 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 your pet.



VisioFocus Animal 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 the  button is pressed for the body temperature reading, the VisioFocus Animal 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 6 minutes 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 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 also in environments from -7 to +5 and from +40 to +45 °C but in these cases the accuracy is not guaranteed.

The thermometer keeps the calibration for 15 minutes.

The MQCS allows the device to immediately stabilize its temperature with the one of an ambient or a reference element in just 3 seconds.

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 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 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 on the grass, or on the floor, the soil, no matter if asphalt, concrete or tile.

VisioFocus Animal 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 Animal has been designed to be able to adapt to all animals.

VisioFocus Animal 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 Animal® in accordance with the kind of pet and with the chosen measurement area, and adjust the thermometer to a specific animal standard temperature.



Indeed, using the  button it is possible to calibrate VisioFocus Animal to align to a specific kind of pet and/or to a specific area of measurement.

VisioFocus Animal is multipurpose

VisioFocus Animal can also be used to take the temperature of objects, liquids or other surfaces in the 1 to 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 Animal 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  button.

The device is supplied by 4 AAA batteries (normally NOT included in the package) that have a life of 30,000 measurements or 3 years, according the use. The only necessary maintenance is to protect the wave-guide and avoid that dust and dirty enter inside. In case dust or dirty will enter we recommend to clean it using a cotton bud moistened with alcohol

Manufacturing and QA

VisioFocus Animal is manufactured by Tecnimed in accordance with RoHS (Pb-free) directive under the ISO 9001:2008, ISO 13485:2003, ISO 13485:2003 CMDCAS, EN 60601-1 and UNI CEI EN ISO 14971:2009 Quality System.

The production, control and calibration of VisioFocus[®] are performed by Tecnimed in a Class 100 Clean Room.

The packaging is made in an Ambient Controlled room.

The quality of the product is further certified by external independent institutes

VisioFocus Animal packaging

VisioFocus Animal will be available in clam shell



TECHNICAL DATA

VisioFocus Animal 06620	For animal
No. of buttons	3
LED lights color	Amber
Protective cap	Not available
Display backlight	Green color
Room temperature detection	Yes
MQCS (Manual Quick Calibration System)	Yes
Batteries (normally NOT included)	4 AAA/LR03 type (preferably alkaline)
Batteries life	3 years or 30.000 measurements
Resolution	0.1°C (0.1°F)
Body temperature measuring range	32.0/43.5°C (93.2/108.5°F)
General measuring range (out of the body)	1.0/80°C (33.8/176°F)
Room temperature working range:	
<i>Measurement on animals</i>	-7/+45°C (50/113°F) please note that under +10°C the LCD display alternates the value to Lo5 and the accuracy is not guaranteed
<i>Measurements on objects</i>	-7/+45°C (50/113°F)
Correction factor range	-3/+5 °C (-6/+10°F) dynamic range with respect to the correction factor set by the producer.
Accuracy level (in instrumental tests according to ASTM E 1965-98 (2009) standard):	
from 36 to 39°C (96.8/102.2°F) =	+/-0.2°C (+/-0.4°F)
from 34 to 35.9°C (93.2/96.6°F) =	+/-0.3°C (+/-0.5°F)
from 39.1 to 42.5°C (102.4/108.5°F) =	+/-0.3°C (+/-0.5°F)
from 1.0 to 19.9°C and from 42.5 to 55.0°C =	+/-1.0°C
(from 33.8 to 67.9°F and from 108.5 to 131°F) =	(+/-1.8°F)
from 20 to 33.9°C =	+/-0.3°C
(from 68.0 to 93.0°F) =	(+/-0.5°F)
Distance from the pet during operation: about 6 cm (2.4 inches), set through an optical signal	
Dimensions: 136 x 43.5 x 21.5 mm (5.35 x 1.71 x 0.85 inches)-not including cap	
Weight: 90 gr. (3.17 oz.) - batteries included 46 gr. (1.62 oz.) - without batteries	

Name: Visiofocus Animal 06620

Description: Infrared non-contact clinical thermometer which allows an instant, hygienic and accurate measurement of animal temperature without any contact with the pets

Manufacturer: Tecnimed srl, plant in Vedano Olona, Varese

Project: Tecnimed srl, Vedano O. (VA) Italy

Owner Patents: Tecnimed srl, Vedano O. (VA) Italy

CE conformity: LVD (2014/35/UE) and EMC (2004/108/EC) Directives

Patents: 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

Conformance: Quality System ISO 9001:2008,
ISO 13485:2003 and ISO 13485:2003 CMDCAS,
EN 60601-1 and UNI CEI EN ISO 14971:2009
ASTM (American Society for testing Materials) E 1965-98(2009)
Accordance with RoHS (Pb-free) directive