

# VISIOFOCUS®

## PRO 06480

IT

### Manuale d'Uso

Leggere attentamente le presenti istruzioni prima di usare il termometro

EN

### User Manual

Read these instructions carefully before using the thermometer

FR

### Mode d'Emploi

Lire attentivement les instructions avant d'utiliser le thermomètre



Seguire le istruzioni per l'uso /  
Follow instructions for use /  
Suivre les instructions  
d'utilisation



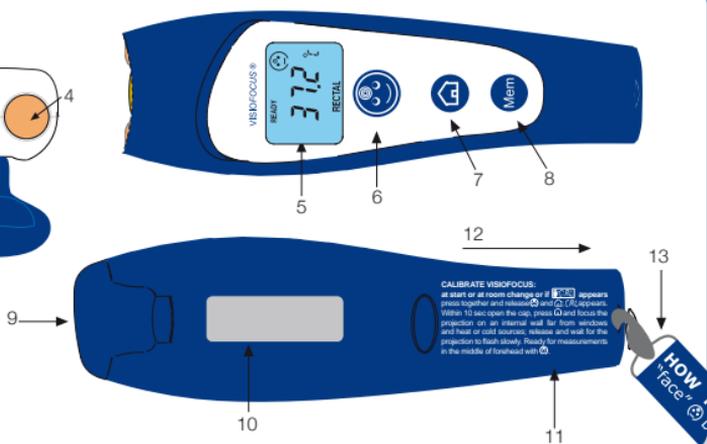
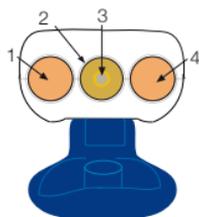
Riferirsi al manuale d'uso /  
Refer to the user manual /  
Reportez-vous au mode  
d'emploi



ATTENZIONE: leggere le  
avvertenze / ATTENTION: read  
the warnings / ATTENTION: il y  
a des précautions d'emploi



Fig. 1



1.	Luce di puntamento	Aiming light	Faisceau lumineux de positionnement
2.	Guida d'onda	Waveguide	Orifice avant
3.	Sensore (sul fondo della guida d'onda)	Sensor (at the bottom of the waveguide)	Captur (au fond de l'orifice avant)
4.	Luce di puntamento	Aiming light	Faisceau lumineux de positionnement
5.	Display LCD	LCD display	Ecran LCD
6.	Pulsante FACCIA per le misurazioni sulla fronte	FACE button for body temperature readings	Bouton VISAGE pour les mesures sur le front
7.	Pulsante CASA per le altre misurazioni	HOME button for other readings	Bouton MAISON pour les autres mesures
8.	Pulsante MEMORIA (per riattivare la retroilluminazione del display, per 3 secondi; mostrare le ultime 9 misurazioni, se il pulsante "Mem" è attivo; cambiare le impostazioni)	MEMORY button (intended for reactivating the display backlight for 3 seconds, showing the last 9 measurements - if "Mem" is enabled - and to changing the settings/modes)	Bouton MEMOIRE (permet de réactiver le rétro éclairage de l'écran pendant 3 secondes, de rappeler les 9 dernières mesures effectuées (si le bouton "Mem" est activé) et de modifier les options)
9.	Capuccio protettivo	Protective cap	Capuchon de protection
10.	Etichetta con numero di serie	Label with serial number	Etiquette avec numéro de série
11.	Sportello batterie (4 x AAA) con istruzioni brevi	Battery door (4 x AAA) with brief instructions	Couvercle des piles (4 x LR03) avec de brèves instructions
12.	Far scorrere lo sportello per aprirlo	Slide to open	Soulevez le couvercle pour le retirer
13.	Lanyard con istruzioni brevi aggiuntive – da indossare intorno al collo	Special lanyard with additional brief instructions - to be worn around the neck	Cordon porte-thermomètre contenant de brèves instructions au sujet de l'utilisation et à mettre autour du cou.

**INTENDED USE:** VisioFocus® PRO is an infrared thermometer intended for intermittent measurement of human body temperature in people of all ages (professional use).

## IMPORTANT

Each non contact thermometer needs to be stabilized at the room temperature. VisioFocus PRO is equipped with 2 quick calibration systems, which allows the thermometer to quickly stabilize at the room temperature: the MQCS (Manual Quick Calibration System) and the AQCS (Automatic Quick Calibration System). See par. # 8. Additionally, VisioFocus PRO foresees two different settings:

- **“NURS”** (default setting): the MQCS is requested and mandatory every 30 minutes. This setting is highly recommended for nurses who take many measurements moving from room to room as well as for any intensive use, such as in airports etc. The “HOME”  button is disabled. The “Mem”  button is disabled and it can be enabled by changing the settings (see par. 7).
- **“DOCT”**: the MQCS is not mandatory, but if the thermometer’s temperature is changing, the AQCS (Automatic Quick Calibration System) is automatically activated and allows the rapid stabilization of the thermometer to the room temperature: the display shows a countdown indicating the time required for its stabilization. To make a measurement is necessary to wait the end of the countdown without touching the device. Alternatively, at any time, it is possible to do the manual MQCS (suggested procedure). In “DOCT” mode the “HOME”  and the “Mem”  buttons are enabled.

Please note that if the thermometer set in “DOCT” is used too frequently and intensively (as in an hospital department) the system will ask the user to make the MQCS anyway (although with some delay).

To change the setting from “NURS” to “DOCT” – and vice-versa – see par. #7.

## 1. FOREWORD

VisioFocus PRO is specifically studied to be used in a hospitals, ambulances or clinic environments, but also airports, schools, factories, etc. in case of emergency and/or pandemic situations where it is necessary to take several fast and hygienic temperature readings.

VisioFocus PRO is:

- hygienic: never touches the patient, does not need disinfection and does not require expensive disposable caps;
- comfortable: as it is totally not invasive, there is no need to wake up the patient or to ask for his cooperation while taking the temperature;
- accurate: detects the body temperature with constancy, repeatability and accuracy;
- unique: it cancels all variables which can’t be monitored by and do not depend on the health worker (i.e. the presence of earwax during a tympanic measurement or the displacement of the thermometer during the armpit or oral measurement). With VisioFocus PRO the user can be sure of having the total control on all measurements made in the hospital ward.



## 2. WARNINGS

Read these instructions carefully before using the thermometer

### 2.1 Precautions

1. To avoid reading anomalies, use VisioFocus PRO according to this user manual.
2. Use VisioFocus PRO in a draft-free room, at a steady temperature between 16 and 40°C (60.8 and 104°F).
3. If the thermometer was stored in another room (or even in a drawer, etc.), before using it, run the manual calibration procedure (MQCS – par. #8). No matter if it is set in “NURS” or “DOCT”.
4. Do not take a temperature reading in the following situations:
  - if the subject is sitting in a draft or has come from another room that was ventilated or at a different temperature than the room where the thermometer is used;
  - if, in the minutes before reading, the subject has:
    - been walking, running or exercising;
    - been wearing a cap, hat or scarf;
    - been cool sponged on the forehead;
    - been exposed to agents that could alter forehead temperature, e.g. shower, shampoo, hair-drier, direct sunlight, fireplace heat, cold compresses therapies, air conditioner flow etc.; even touching the forehead can alter the temperature.In all the above cases, interrupt the exposition of the subject to these agents and wait a few minutes for the forehead temperature to stabilize.
5. Changing the reading point will lead to different results. Therefore, remember, always **aim the projection on the same spot, precisely at the center of the forehead** (midway between the top of the nose and the hairline) and keep the thermometer perpendicular to the forehead. Do not take measurements on areas other than the centre of the forehead, except for the case at #4.2.
6. The temperature reading is taken in the area where the temperature is projected. Make certain that a 1 cm (0,4 in) area is free all the way around the temperature projection area: it is of major importance to make sure that this area does not include eyebrows, hair or clothing. If necessary, brush away any hair from the forehead but remember, this must be done a couple of minutes beforehand or the temperature reading will be higher than the actual body temperature.
7. When taking a temperature reading, please note that in the presence of oils, make-up or an oxygen mask, and in the case of elderly, the temperature detected may be lower than the actual body temperature.
8. The forehead temperature reading can be affected by profuse sweating, superficial wounds or head injuries.
9. **Do not use the thermometer on a sweaty forehead**, since the temperature reading will be unreliable.
10. In the cases at #7, #8, #9, take the temperature reading on the alternative area (read the par. #4.2.).
11. The gilt waveguide (figure 1) is the most delicate part of the thermometer. It is composed of a gold-plated concave mirror that must be kept clean, crystal clear and intact. Any damage, dust or dirt will alter the temperature reading.

12. Do not handle the thermometer for longer than strictly necessary before taking the reading.
13. Do not use the thermometer in direct contact with the ear or other parts of the body.
14. Do not use the thermometer in direct contact with objects or liquids, keep it away from water and sources of heat, and out of direct sunlight. Do not submerge in water or other liquids. If water seeps into the thermometer, contact your Dealer immediately for technical service.
15. Do not use VisioFocus PRO on a subject making a call with a mobile or cordless telephone or in the presence of strong electromagnetic fields.
16. Avoid knocking and dropping it, and do not use it if damaged or if not functioning properly.

## 2.2 Attention

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's malfunctions.**
2. The aiming lights meet the photo-biological safety requirements outlined in standard EN 62471. No harm can be caused should the aiming lights be accidentally pointed in the eyes: the beams are harmless!
3. The unit is a delicate measurement instrument and must not be used by little children. It is not a toy. Keep it out of the reach of children or persons with limited sensorimotor skills. Small parts can be ingested or inhaled.
4. If the patient's fidgeting makes it difficult to take a correct reading (especially in case of children), first become familiar with the device and, anyway, turn the aiming lights on before bringing the thermometer close to the forehead.
5. Since it never comes into contact with the body, VisioFocus PRO does not require any "disposable" protection covers.

### 3. HOW IT WORKS

VisioFocus PRO detects the infrared radiation naturally emitted by the body and, in particular, from the human forehead.

The forehead is the ideal site for taking a temperature reading because it is crossed by the temporal artery which receives blood flowing from the aorta and carotid artery.

Moreover, the forehead is the only part of the head in direct contact with the brain that is not covered by hair.

The brain is the most important, most delicate organ in the human body and it is the most susceptible to injury from fever.

The head is also the first part of the body to change its temperature as a fever rises and falls.

With each temperature measurement, your VisioFocus PRO takes a series of 125 readings a tenth of a second. Its sophisticated microprocessor then amplifies and processes this information along with the room temperature and shows the correct body temperature through the projection.

Please note that the **body temperature varies among individuals: moreover, individual temperature varies according to the measurement's site and throughout the day, also in response to physical or mental effort** (for example a baby's crying). Moreover, the body temperature can be affected by the outside temperature and, depending on the type of reading taken, other factors may also come into play.

Due to heat dispersion from uncovered parts of the body, the actual temperature at the forehead is generally lower than that in covered zones.

Therefore, when the "FACE"  button is pressed, the VisioFocus PRO software automatically applies a correction factor and thus the resulting value is comparable to that given by other more usual temperature reading sites commonly used in the countries where the unit is sold - axillary, oral or rectal reading, or internal temperature reading -, according to the customer's choice.

Nevertheless, the reference value can be changed. Remember, an "oral" reading is generally 0.2°C (0.4°F) higher than an axillary reading while a "rectal" or "core" reading is 0.8°C (1.4°F) higher (see par. #7).

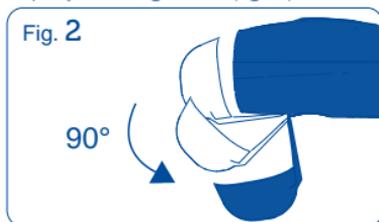
The VisioFocus PRO temperature reading taken on the forehead of a healthy person can range between 35 and 37.5°C (95 and 99.5°F), in axillary mode, although in an adult it may even be below 35°C (95°F).

## 4. HOW to USE IT



### 4.1 Taking the body temperature: FOREHEAD

- At the first use, insert 4 AAA batteries (LR03, preferably alkaline) as explained at #11.
- Open the protective cap by rotating it 90° (fig. 2).



- Press the “FACE”  button.

If the display shows:



it is reminding to do the MQCS if necessary before proceeding with the body temperature measurement.

Proceed as follows:

- press and release at the same time “FACE”  and “HOME”  buttons: the word “CAL”  will appear on the display;
- within 10 seconds point the thermometer against on an internal wall (not the inside of an external wall), pressing the “HOME”  button;
- release the button: lights will flash twice *s l o w l y* and then the display will show the acquired temperature.

VisioFocus PRO is now ready to take a measurement.

For more details about MQCS see par. #8.

- **To take a reading**, press the “FACE”  button and hold it down.

The two aiming lights turn on and you will begin to see the temperature reading, projected onto the forehead between two arches. The display starts to show the temperature, together with the symbol .

- While keeping the VisioFocus PRO **perpendicular to the center of the forehead**, move it in or back away from the forehead until the temperature reading is set squarely between the two arches (fig. 3):



if the thermometer is too far away, or too close, the temperature will not fall between the two arches (fig. 4 and 5).



• When you see the temperature at the midpoint between the two arches (fig. 6), the thermometer is at the right distance: release the button and keep the projection flashes and read the temperature value.



You can also read the temperature on the display, lit in light blue.

If necessary, you can immediately take another reading.

• 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 45 minutes (“DOCT” mode) or 30 minutes (“NURS” mode) before shutting off.



#### 4.2 In case of sweating, oxygen mask, elderly patients: take the reading on the eyelid

In case of perspiring forehead, oxygen mask, elderly patients - especially with wrinkled forehead - , the measurement must be taken on the eyelid.

Proceed as you would do for a forehead reading, using the “FACE”  button, but taking a scan of the closed eyelid (fig. 7).



No need to worry that the patient could open the eyes while you are taking the reading: the lights are harmless.

Precision is not guaranteed, but such reading can be considered a valid approximation of one's body temperature. Such reading is also indicated when one has oil or make-up on the forehead.

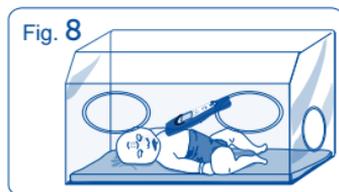


### 4.3 Use on newborns in incubators

For use in the incubator do the MQCS inside (see par. #8):

- press simultaneously “FACE”  and “HOME”  buttons. The word **CAL** appears on the display;
- within 10 sec open the protective cap and, handling the device according to the position of the forehead of the baby, introduce it in the incubator, press the “HOME”  button and focus the lights on the inner wall of the incubator.
- Release the button.

Using the “FACE”  button, take the temperature on the forehead of the baby (fig. 8).



### 4.4 Other readings

In “**DOCT**” mode, using the “HOME” button, VisioFocus PRO can also be used to:

- 1) read the temperature of objects and liquids in the 1-80°C (33.8-176°F) temperature range. For example: canteen meal, liquids, blood bag, incubator, professional tools, room temperature, etc.;
- 2) scan the skin temperature of different body areas, in order to detect possible inflammations and/or circulatory diseases or any other problem which may cause an alteration of the surface skin temperature. Of course VisioFocus PRO can be used on open wounds or organs during surgical interventions, ensuring maximum hygiene thanks to the total absence of contact.

These measurements are not entirely accurate and must be considered as relative rather than absolute values. If taken on the skin, they can show the difference between two close or symmetrical areas.

Proceed as you would for a forehead reading but press the “home”  button; the display will light up in green and show the house symbol .

In “**NURS**” mode the “HOME” button is disabled; anyway, using the “FACE” button, you can also take any temperature from 1 to 80°C/33.8 to 176.0°F, but in this case, these measurements are not entirely accurate and must be considered as relative rather than absolute values. If taken on the skin, they can show the difference between two close or symmetrical areas. The display will show alternately the temperature value and “Lo.3”, if the recorded value is <34°C/93.2°F or “Hi.2”, if it is >37°C or 38°C (98.6 or 104°F) depending on the Alarm level - see par. #7.

## 5. ROOM TEMPERATURE

When the thermometer is in stand-by, the room temperature and the symbol flash and remain displayed automatically for 45 minutes (DOCT mode) or 30 minutes (NURS mode) after the last reading is taken.

To display the room temperature on the backlit display, while the thermometer is in stand-by mode, press the "Mem"  button: the display illuminates in orange showing the room temperature and the symbol  flashing.

## 6. MEMORY FUNCTION

The "Mem" button (in DOCT mode or in NURS mode if it is enabled) lets you call up the last 9 temperature readings.

Press twice the "Mem"  button: the display will light up in violet and the value of the last reading will be shown accompanied by the number 1 and the symbol  or  depending on which button was used for that reading.

Pressing the button again calls up the second to last, third to last reading and so on, accompanied by the numbers 2, 3, etc.

## 7. HOW to CHANGE the SETTINGS

Depending on where it is going to be sold, your thermometer leaves the factory:

- **Celsius** ( °C ) or **Fahrenheit** ( °F ) **degrees**;
- referred to **oral** ( ORAL ), **rectal** ( RECTAL ) or **axillary** ( AXILLA ) or **internal** temperature readings ( *OR ε* ) or only internal temperature readings (no symbol will be shown);
- **"NURS" mode** ( *nurs* ), (highly recommended if used by nurses, in ambulances and for any intensive use, such as in airports etc: "HOME" and "Mem" buttons are disabled; MQCS is requested and mandatory every 30 minutes) or **"DOCT" mode** ( *doct* ), (suggested for doctors' use: "HOME" and "Mem" buttons are enabled; AQCS is automatic and MQCS is optional);
- **≥37.0°C (≥98.6°F) or ≥38.0°C (≥100.4°F) temperature level alarm**: you can choose the temperature threshold beyond which the thermometer alternates the projection of "Hi.2" and the temperature (for 7 seconds);
- **memory function** enabled ( *MEM ON* ) or disabled ( *MEM OFF* );
- **"air" function** enabled ( *AIR ON* ) or disabled ( *AIR OFF* ): to be activated in case of high air conditioning in the room, to minimize the cooling effect of intense air conditioning on the subject/patient.

If necessary, these settings can be modified as follows:

- while the thermometer is off or in stand-by mode, press the "Mem"  button and hold it down; after about 8 seconds the visualization on the display changes showing in rotation the following combinations:

☺	☹	ORAL	RECTAL	AXILLA	Core	nurs	docs
37.0 ☺	38.0 ☹	nen	on	off	Air	on	off

### The current settings are highlighted by the green backlight.

• When the new desired setting appears, release the button. The purple backlight will turn green.

Only one setting can be modified at a time.

#### NOTES:

- The measurement of the body temperature must be taken always at the centre of the forehead (par. #4.1) or at the eyelid (par. #4.2), no matter what the current setting is: in fact, the axillary, oral, rectal or core settings provide a forehead temperature value that is a valid approximation of the axillary, oral or rectal/internal temperature respectively (see par. #3).

- if the thermometer was produced with the sole internal temperature setting, the ORAL, RECTAL, AXILLA and CORE settings will not appear in the sequence.

- Temperature level alarm: if you choose 37.0°C the thermometer alternates the projection of "Hi.2" and the temperature above 37°C; if you choose 38.0°C the thermometer alternates the projection of "Hi.2" and the temperature above 38°C.

- Air function: choose **on** in case of high air conditioning in the room (in case of high air conditioning in the room, when **Air** appears, wait for **on** and release the button - the display will show alternately the word **Air** and the temperature value); otherwise choose **off**.

## 8. ROOM TEMPERATURE CALIBRATION

### 8.1 MQCS

The exclusive **Manual Quick Calibration System (MQCS)** promptly corrects the device's internal temperature and adapts it to the real temperature of the room where the reading is to be taken.

This system is extremely useful in case of prolonged use, when you need to keep the temperature of the thermometer steady, or in case you have to move quickly from one room to another - having different temperature - and you cannot wait too long to have the thermometer stabilized to room temperature: for example, if you move from room to room in a hospital department, especially if rooms have different exposures (North, South, etc.) or in case of ambulance use for home-care.

This system is very useful also if the device is kept in the pocket or if handled for long time for example during screening of passengers in airports.

Proceed as follows (room temperature must be in the 10-45°C/50.8-113°F temperature range):

- press the "FACE"  and "HOME"  buttons (fig. 9) simultaneously;
- the symbol CAL  will appear and the display will light up in blue. Open the cap;

- within 10 seconds focus the thermometer on an internal wall (not the inside of an external wall) or wardrobe with uniform temperature and at a point approximately 80/150 cm (30 to 60 inches) from the floor. Press the "HOME"  button (fig. 10);



- once the right distance is reached (temperature value between the arches, fig. 5), release the button: the lights flash **slowly** and the display shows the room temperature.

To ensure a reliable temperature reading, do not focus the thermometer on an outside wall, window, source of heating or cooling (radiator, air conditioner, lamp, computer, surface in contact with the human body, etc.).

The thermometer is now ready to take a reading and will keep the MQCS for 30 minutes. "MQCS" on the display indicates that manual quick calibration has been performed. This system enables the thermometer to take accurate readings.

The MQCS can also be performed in case of countdown (see par. 8.2).

In "NURS" setting, the MQCS is mandatory every 30 minutes.

In "DOCT" setting, see the par. #8.2.

## 8.2 AQCS - countdown (only DOCT MODE)

In DOCT setting, if the thermometer is handled at length or if there is a significant temperature difference with respect to the room temperature, a countdown will appear on the display indicating that you should wait until automatic temperature calibration **AQCS (Automatic Quick Calibration System)** has been completed. The countdown will continue updating as long as differences in temperature are detected (for example, because the thermometer has been continuously handled).

At this point you have 2 options:

1. make the **MQCS** as described in par. #8.1

or

2. without touching the thermometer, wait until the countdown has run its course and automatic quick calibration AQCS (countdown) is completed.

At the end of the countdown, the thermometer can take accurate readings.

"AQCS" appears on the display indicating that automatic quick calibration has been performed.

## 9. MEANING of DISPLAY MESSAGES



**DESCRIPTION:** during normal operation, the symbol appears on the display.  
**PROBLEM:** the batteries are running low but it is still possible to take several readings.  
**SOLUTION:** obtain new batteries for changing them when the signal E.1 (below) appears.



**DESCRIPTION:** "E.1" and the symbol appear on the display, or the unit does not turn on at all.  
**PROBLEM:** the batteries are dead.  
**SOLUTION:** remove the batteries immediately and insert the new ones when necessary (see par. #11).



**DESCRIPTION:** the projection/display reads "E.8".  
**PROBLEM:** the thermometer was moved before the light started flashing, or the area is subject to strong electromagnetic fields.  
**SOLUTION:** wait until the lights flash before moving the thermometer; make certain that you are not in the vicinity of calls with mobile or cordless telephones.



**DESCRIPTION:** the display reads C:AL and/or a countdown (in minutes and seconds), a pictogram of a hand inviting to stop, and the messages AQCS and MQCS?  
**PROBLEM:** the thermometer has not stabilized.  
**SOLUTION:** • wait until the AQCS countdown has run its course without touching the thermometer, or  
 • perform an MQCS (par. #8).



**DESCRIPTION:** while in stand-by mode, the room temperature displayed is accompanied by the symbol MQCS or AQCS.  
**MEANING:** the thermometer has undergone manual or automatic quick calibration (par. #8).



**DESCRIPTION:** if you've pressed the "FACE" button and the projection/display shows "Hi.4" and the value alternately.  
**PROBLEM:** the room temperature is between 40.1 and 45°C (104.1 and 113°F).  
**MEANING:** the temperature reading can be taken but accuracy is not guaranteed.



**DESCRIPTION:** the projection/display reads "Hi.4".  
**PROBLEM:** the room temperature is too high (above 45°C/113°F).  
**SOLUTION:** move to another, cooler site and, if you are taking the body temperature, wait for the stabilization of the device and of the subject.



**DESCRIPTION:** the projection/display shows "Lo.5" and the value alternately.  
**MEANING:** - reading with "FACE" button: the room temperature is between 10 and 15.9°C (50 and 60.6°F).  
 - reading with "HOME" button (DOCT mode): the room temperature is between 41 and 60.6°F (5 and 15.9°C).  
**SOLUTION:** the temperature reading can be taken but accuracy is not guaranteed.



**DESCRIPTION:** the projection/display reads "Lo.5".

**PROBLEM:** the room temperature is too low (below 10°C/50°F if you've pressed the "FACE" 😊 button or below 5°C/41°F if you've pressed the "HOME" 🏠 button).

**SOLUTION:** move to another, warmer room and, if you are taking the body temperature, wait for the stabilization of the device and of the subject.



**DESCRIPTION:** the projection/display shows "Hi.2" and the value alternately.

**MEANING:** ATTENTION! The temperature is above the level alarm you've chosen (see par. 7).



**DESCRIPTION:** the projection/display reads "Hi.2".

**PROBLEM:** the temperature detected exceeds the limit for operation (>42.5°C / >108.5°F if you've pressed the "FACE" 😊 button or >80°C / >176°F if you've pressed the "HOME" 🏠 button).

**SOLUTION:** if you've pressed the "FACE" 😊 button: please make certain that you've pressed the correct button, with regard to the measured object, and that the warnings have been met.

If you've pressed the "HOME" 🏠 button (DOCT mode): the temperature reading cannot be taken (because it is too high).



**DESCRIPTION:** the projection/display reads "Lo.3".

**PROBLEM:** if you've pressed the "FACE" 😊 button: the forehead temperature appears to be too low (<34.0°C or <93.2°F).

If you've pressed the "HOME" 🏠 button (DOCT mode): the surface temperature read is below the operating limit (<1°C/33.8°F).

**SOLUTION:** if you've pressed the "FACE" 😊 button: make certain the waveguide is not soiled or damaged and that the subject has not come from a cold room.

If you've pressed the "HOME" 🏠 button: the temperature reading cannot be taken.



**DESCRIPTION:** the display shows "off".

**MEANING:** the button that you've pressed is disabled when the device is set in NURS.

**SOLUTION:** if you want to enable it see par. 7.

## 10. TROUBLESHOOTING

1. The projection/display does not turn on: the batteries are completely dead or incorrectly inserted; replace or reinsert them (par. #11).
2. The temperature is not projected between the two arches: the unit is not at the correct distance; move the thermometer forward or back until the projected temperature falls precisely between the two arches (fig. 6).
3. The projected temperature is not clearly visible: there is too much light in the room or the batteries are low; cast a shadow over the subject or replace the batteries.
4. The sensor (fig. 1) is damaged or water has seeped into the thermometer: contact your Dealer right away for technical service.
5. The thermometer temperature reading is too low:
  - make certain that the conditions outlined in 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. #12 or contact your Dealer for technical service;
  - check that the thermometer is perpendicular to the forehead as indicated in fig. 3.
6. The temperature reading is too high: make certain that the conditions outlined

in the warnings have been met (par. #2).

7. The thermometer appears blocked, for instance, some lights remain on for longer than 2 minutes: reset the thermometer by removing and reinserting the batteries.

## 11. REPLACING the BATTERIES

- Set your thumb in the oval hollow on the back of the unit, press down and slide the battery hatch out as shown in fig. 11.

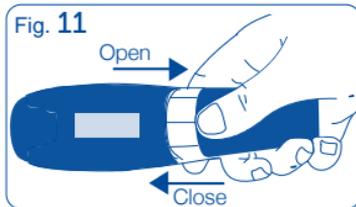
- Remove the battery hatch.

- 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.

- To close the hatch, slide it in the opposite direction from which it was opened. After changing the batteries, let the thermometer stabilize for 20 minutes before taking a temperature reading, or run a manual quick calibration (MQCS, par. #8).

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



## 12. CLEANING

**CLEANING THE WAVEGUIDE:** the thermometer waveguide (fig. 1) is very 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 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.**

## 13. TECHNICAL CHARACTERISTICS

**Series VisioFocus®**, model **VisioFocus® PRO 06480**: non-contact infrared thermometer

Resolution: 0.1

**Body temperature readings**  Measurement range: 34,0/42,5°C (93.2-108.5°F)  
Room temperature working range: 16/40°C (60.8/113°F) <sup>(1)</sup>

Accuracy °C	from 34,0 to 35,9°C:	±0,3°C
	from 36,0 to 39,0°C:	±0,2°C <sup>(2)</sup>
	from 39,1 to 42,5°C:	±0,3°C

Accuracy °F	from 93.2 to 96.7°F:	±0.5°F
	from 96.8 to 102.2°F:	±0.4°F <sup>(2)</sup>
	from 102.3 to 108.5:	±0.5°F

**Other readings**  Measurement range: 1,0/80,0°C (33.8-176°F)  
Room temperature working range: 10/40°C (40/104°F) <sup>(3)</sup>

Accuracy °C	from 1,0 to 19,9°C:	±1,0°C
	from 20,0 to 35,9°C:	±0,3°C
	from 36,0 to 39,0°C:	±0,2°C
	from 39,1 to 42,5°C:	±0,3°C
	from 42,6 to 80°C:	±1,0°C

Accuracy °F	from 33.8 to 67.9°F	±1.8°F
	from 68.0 to 96.7°F	±0.5°F
	from 96.8 to 102.2 °F	±0.4°F
	from 102.3 to 108.6°F	±0.5°F
	from 108.7 to 176 °F	±1.8°F

<sup>(1)</sup> In rooms where the temperature is between 10 and 15,9°C (50 and 60.6°F), accuracy and the operating range are not guaranteed and the message "Lo.5" and the temperature value are displayed alternately. In rooms where the temperature is between 40,1 and 45°C (104.1 and 113°F), accuracy and the operating range are not guaranteed and the message "Hi.4" and the temperature value are displayed alternately.

<sup>(2)</sup> ASTM E1965-98-2009 laboratory accuracy requirements in the display range of 37 to 39°C (98 to 102°F) for IR thermometers is ±0,2 °C (±0,4 °F), whereas for mercury-in-glass and digital thermometers, the requirement per ASTM Standards E 667-86 and E 112-86 is ±0,1 °C (±0,2°F).

<sup>(3)</sup> In rooms where the temperature is between 5 and 9,9 °C (41 and 50°F) accuracy and the operating range are not guaranteed and the display shows "Lo.5" and the value alternately. In rooms where the temperature is between 40,1 and 45°C (104.1 and 113°F), accuracy and the operating range are not guaranteed and the message "Hi.4" and the temperature value are displayed alternately.

**Power supply:** 4 AAA (LR03) alkaline batteries - 1.5 V (included)

**Life of high quality batteries:** up to 3 years or 30,000 readings (depending on use)

**Dimensions:** 144 x 43,5 x 21,5 mm (5.67 x 1.71 x 0.85 inches) - including cap

**Weight:** 98 gr. (3.46 oz.) - batteries included

Distance from the subject: **calculated using an optical aiming system** (approx. 6 cm/2.36 inches).

Large, clearly visible, backlit display in 5 colors:

1. light blue (button used: FACE. See par. #4.1 and #4.2);
2. green (button used: HOME. See par. #4.3);
3. violet (button used: MEM, memory function. See par. #5);
4. orange (button used: MEM, ambient temperature function. See par. #6);
5. blue (MQCS function. See par. #8).

Atmospheric pressure range of operating conditions: from 700 hPa to 1,060 hPa. Relative humidity range of operating conditions: from 15% to 93%, non-condensing.

Keep in a clean, dry place, preferably at a temperature ranging between +16 and +40°C (60.8 and 104°F). Store at a temperature included between -10 and +60°C (14 and 140°F) and in any case not lower than -18°C (0.4°F) or higher than +70°C (158°F).

Expected life: 10 years.

VisioFocus PRO is a class IIa medical device (per Directive 93/42/EEC and subsequent amendments and integrations). Its measuring system has been tested in hospitals, private clinics and medical offices. It is compliant with the pertinent ASTM standard (E1965-98:2009) and with IEC 60601-1 and IEC 60601-1-2 standards. Internally powered equipment for continuous operation. The VisioFocus PRO LEDs emit low light radiation in compliance with IEC 62471. Tecnimed srl, P.le Cocchi, 12 - 21040 Veduggio Olona (VA) - Italy undertakes full responsibility for this product's compliance with the reference standards.

Fig. 2

90°

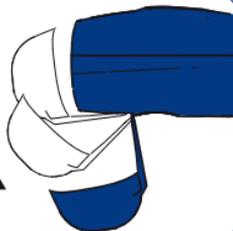


Fig. 4



Troppo lontano /  
Too far /  
Trop loin

Fig. 3



Distanza corretta e termometro  
perpendicolare al centro della fronte /  
Correct distance and thermometer  
perpendicular to the forehead /  
Bonne distance et thermomètre  
perpendiculaire au milieu du front

Fig. 5



Troppo vicino /  
Too near /  
Trop près

Fig. 6



Distanza corretta /  
Correct distance /  
Bonne distance

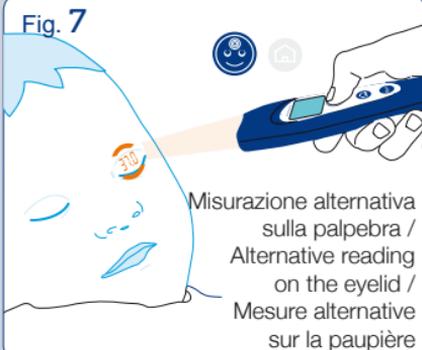
Fig. 9  
MQCS



Fig. 10  
MQCS



Fig. 7



Misurazione alternativa  
sulla palpebra /  
Alternative reading  
on the eyelid /  
Mesure alternative  
sur la paupière

Fig. 8

