INFRARED CAMERAS

INFRARED THERMAL CAMERAS
Simply
advanced.

Capacitive touch screen extra-bright	
Interchangeable optics Optional equipment	
Laser pointer	
Optical thermal camera in visible range	
Integrated Flash LED	
Up to 3 independent pointers	
Preset selection properties of materials	

50 hz

384x288
160x120
80x80
32x31
p i x e l

- Multi-areas with independent pointers
- Fluid image also on moving targets
- High resolution for sharp images
- P.i.P. fusion Overlapping visual + thermo-graphic image
- PC USB 2.0 connection HDMI video output Data saving on MicroSD card
- **THT45** Use with the **THTview*** App for iOS™ and Android™ systems

0,06 °C

- Temperature range −20°C + 400°C
- Automatic adjustment of SPAN
- Higher thermal sensitivity
- Rechargeable batteries and battery chargers
- Recording of of IR videos
- Voice notes
- Text notes

Industrial, electrical or construction. Excellent in any sector.

The new THT range makes use of a highly **innovative technology** to deliver **performance at affordable prices**.
The use of IR technology today applies to many sectors, from industry to construction, from systems to installation. Thanks to the **innovative icon display**, the wide **capacitive touch screen display** and the very high **infrared resolution** with 384x288 pixels and 160x120 pixels (80x80 pixels for THT45), identifying those problems which are not visible to the naked eye becomes simpler and more intuitive.
The new THT thermal cameras are provided with Flash Led*, Laser pointer*, photo-camera for visual images and PiP* and optional interchangeable optics**. With the provided 4GB memory card, with which you will be able to take hundreds of pictures, it will be possible to prepare **reports complete with images**, **audio and text comments**. With the new THT thermal cameras, **thermographic analysis** will be **simple and quick**.

* THT70, THT60 and THT45.   ** Only THT60 and THT70.   *** The THTview App is available for free download in the Apple Store™ and Google Play™ store.

CHARACTERISTICS OF IR IMAGE

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
IR sensor resolution	384 x 288	160 x 120	160 x 120	80 x 80	80 x 80	80 x 80	32 x 31
Temperature range	-20 ÷ 400°C -4 ÷ 752°F	-20 ÷ 400°C -4 ÷ 752°F	-20 ÷ 350°C -4 ÷ 662°F	-20 ÷ 350°C -4 ÷ 662°F	- 20 ÷ 260°C - 4 ÷ 500°F	- 20 ÷ 380°C - 4 ÷ 716°F	-20 ÷ 300°C -4 ÷ 572°F
Thermal sensitivity	< 0.06°C @ 30°C	< 0.08°C @ 30°C	< 0.1°C @ 30°C	< 0.1°C @ 30°C	< 0.1°C @ 30°C	< 0.1°C @ 30°C	< 0.15°C @ 25°C
NETD	< 60mK	< 80mK	< 100mK	< 100mK	< 100mK	< 100mK	< 150mK
Spectrum range	8 ÷ 14µm	8 ÷ 14µm	8 ÷ 14µm	8 ÷ 14µm	8 ÷ 14µm	8 ÷ 14µm	6.5 ÷ 14µm
IFOV (@1m)	1.14mrad	3.33mrad	2.78mrad	3.78mrad	4.86mrad	4.53mrad	-
Type of IR sensor	UFPA	UFPA	UFPA	UFPA	UFPA	UFPA	UPC
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz	9Hz

CHARACTERISTICS OF IR OPTICS AND BUILT-IN PHOTO CAMERA

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Field of view (FOV)	24.6° X 18.6° (provided optics)	29.8° X 22.6° (provided optics)	25° X 19°	17° X 17°	21° X 21°	21° X 21°	38° X 38°
Focus width of standard lens	22mm	7.5mm	9mm	9mm	7,5mm	7,5mm	-
Focusing of IR optics	Manual	Manual	Manual	Manual	Fixed	Fixed	Fixed
Resolution and FOV of visual camera	640 x 480pxl, FOV 62.3°	640 x 480pxl, FOV 62.3°	1.3Mpxl, FOV 59°	1.3Mpxl, FOV 59°	-	-	320 x 240pxl
Interchangeable optics	•	•	-	-	-	-	-

FUNCTIONS

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Fusion PiP function for combination of thermal and visual images	•	•	•	•	-	-	• (Blending)
3 cursors: Central, Min, Max.	•	•	•	•	•	•	•
Advanced analysis: Spots, Lines, Areas on images and Isotherm line function	•	•	-	-	-	-	-
Correction according to distance, reflected temperature and relative humidity	•	•	• Only reflected temperature	• Only reflected temperature	-	-	• Only reflected temperature
Colour palettes	• 8 standard	• 8 standard	• 4 standard	• 4 standard	• 5 standard	• 5 standard	• 5 standard
Integrated table with emissivity values of common materials	•	•	•	•	-	-	-
Alarm thresholds on temperature measurement	•	•	-	-	-	-	•
Readings in °C, °F, °K	•	•	•	•	•	•	•
Class 2 laser pointer	•	•	•	•	•	-	-
Integrated white light illuminator	•	•	•	•	•	-	-
Digital zoom	1x ÷ 20x	1x ÷ 20x	1x ÷ 32x	1x ÷ 32x	-	-	-
Manual and automatic span	•	•	•	•	Auto only	•	Auto only
Vertical and horizontal lines	•	•	-	-	-	-	-

DATA SAVING

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Standard format of saved images JPEG	•	•	•	•	• (BMP)	• (BMP)	• (BMP)
Saving of IR videos and audio comments in MPEG4 format	•	•	•	•	-	-	-
Voice and text annotation	•	•	-	-	-	-	-

ADDITIONAL CHARACTERISTICS

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Capacitive touch-screen colour display	•	•	-	-	-	-	-
Power supply with rechargeable battery	•	•	•	•	•	•	•
USB interface to PC and THTLink software	•	•	•	•	-	-	• (No software)
PAL/NTSC video output	•	•	• HDMI	• HDMI	-	-	-
WiFi function for connection to mobile devices	-	-	-	• with APP THTview	-	-	-
Bluetooth function for connection to mobile devices	-	-	-	-	• with APP HTMercury	• with APP HTMercury	-

POWER SUPPLY

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Battery type	rechargeable Li-ION 7,4V 2700mAh	rechargeable Li-ION 7,4V 2700mAh	rechargeable Li-ION 3,7V 2000mAh	rechargeable Li-ION 3,7V 2000mAh	rechargeable Li-ION 7,4V 2300mAh	rechargeable Li-ION 3,7V 1300mAh	rechargeable Li-ION 3,7V 1400mAh
Recharging system	On thermal camera or external recharging base	On thermal camera or external recharging base	On thermal camera	On thermal camera	External recharging base	On thermal camera (USB/ power supply)	On thermal camera
Duration	4.5 hours	4.5 hours	4 hours	4 hours	2 hours	5 hours	2 hours
External power supply	External power supply 100/240VAC (50/60Hz)/12VDC	External power supply 100/240VAC (50/60Hz)/12VDC	External power supply 100/240VAC (50/60Hz)/5VDC	External power supply 100/240VAC (50/60Hz)/5VDC	External power supply 100/240VAC (50/60Hz)/10VDC	External power supply 100/240VAC (50/60Hz)/5VDC	External power supply 100/240VAC (50/60Hz)/5VDC

GENERAL CHARACTERISTICS

	THT70	THT60	THT46	THT45W	MERCURY	THT33	THT32
Operating temperature	-20°C ÷ 50°C	-20°C ÷ 50°C	-15°C ÷ 50°C	-15°C ÷ 50°C	5°C ÷ 40°C	-10°C ÷ 45°C	0°C ÷ 50°C
Operating humidity	10% ÷ 90%HR	10% ÷ 90%HR	10% ÷ 90%HR	10% ÷ 90%HR	<80%RH	<80%RH	10% ÷ 90%HR
Storage temperature	-40°C ÷ 70°C	-40°C ÷ 70°C	-40°C ÷ 70°C	-40°C ÷ 70°C	-20°C ÷ 60°C	-20°C ÷ 60°C	-20°C ÷ 60°C
Storage humidity	10% ÷ 90%HR	10% ÷ 90%HR	10% ÷ 90%HR	10% ÷ 90%HR	<80%RH	<80%RH	10% ÷ 90%HR
Ingress protection	IP65 in compliance with IEC529	IP65 in compliance with IEC529	IP50 in compliance with IEC529	IP50 in compliance with IEC529	IP65 in compliance with IEC529	IP54 in compliance with IEC529	IP42 in compliance with AIEC529
Shock	25G, in compliance with IEC60068-2-29	25G, in compliance with IEC60068-2-29	25G, in compliance with IEC60068-2-29	25G, in compliance with IEC60068-2-29	-	-	-
Vibrations	2G, in compliance with IEC60068-2-6	2G, in compliance with IEC60068-2-6	2G, in compliance with IEC60068-2-6	2G, in compliance with IEC60068-2-6	-	-	-
Falling test	2m	2m	2m	2m	-	2m	-
Size (L x W x H)	243x103x160mm	243x103x160mm	224x77x96mm	224x77x96mm	190x75x55mm	180x60x75mm	205x155x62mm
Weight (battery included)	0.92kg	0.92kg	0.5kg	0.5kg	0.55kg	0.26kg	0.4kg
Order code	**HN000070**	**HN000600**	**HN000046**	**HN000045**	**HR000MER**	**HN000033**	**HN000032**

384 x 288 pixel
160 x 120 pixel

THT70 | THT60

**ADVANCED INFRARED THERMAL CAMERA WITH TOUCH SCREEN
WITH RESOLUTION 384x288pxl (THT70) AND 160x120pxl (THT60)**

THT70 and THT60 are professional thermal cameras provided with an IR sensor with **high resolution 384x288pxl (THT70) and 160x120 (THT60)** which make them suitable both for use in **industrial environments** and in the **construction sector**, thus allowing them to be used for **energetic certification tests**. Their peculiarity is their **internal icon structure** with a **capacitive colour touch-screen display with high brightness**. It is possible to save thermal and visual images in standard JPG format in the internal memory or on the appropriate Micro-SD card and **transfer data onto the PC** through the **USB** interface. It can be used to record **IR videos**. THT70 and THT60 have a **wide temperature range (max. 400°C)** thanks to which it is possible to carry out **advanced analyses** including **spots**, **lines**, **areas** and **isotherm lines** on every image. Thermal cameras are the ideal solution for **detecting electric problems, checking mechanical parts, analyzing hydraulic systems, forced ventilation**, etc. Thermal cameras are completed and made particularly performing by the possibility of using **optional interchangeable optics**, the **Flash LED** and the **laser pointer**. In order to make thermographic analyses more immediate, these thermal cameras have been provided with the technology **Picture in Picture** (possibility of **overlapping thermographic** and **visual images**), with the **SPAN** function **(creation of a temperature range of interest)** and with the **automatic setting of emissivity** with a **preset table of materials**. Finally, with the **provided software THTLink** it is possible to **analyze IR photos, change colour palettes**, prepare advanced reports and much more.
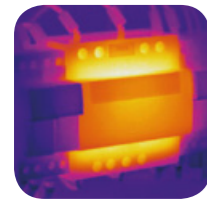
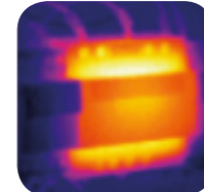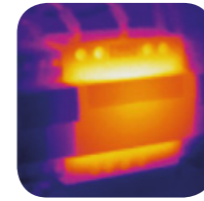**THT70** 384x288pxl

160 x 120
80 x 80 pixel

THT46 | THT45W

**COMPACT INFRARED THERMAL CAMERAS
WITH FUNCTION PiP**

THT45W and **THT46 are an absolute innovation** in the sector of thermal cameras, both for the **advanced performance** typical of a high-level thermal camera and for their **reduced size**. THT45W is provided with IR sensor with resolution **80x80pxl** which makes it the ideal device for maintenance operations and **everyday analysis**. THT46, which a resolution of **160x120pxl**, has an even more advanced performance which allows a **better definition of the infrared image**. They are provided with an **LCD colour display** with **high brightness** and by a drop-down menu **very easy to use**, which allow for a **simple programming** by means of a keypad. The temperature range is very wide **(-20°C at 350°C)** and it is possible to save both **thermal images** and **visual images** in a standard JPG format on a **micro SD card**. IT is also possible **to transfer data onto the PC via USB**. Recording of **IR videos** is also available. Thermal cameras THT45W and THT46 are the **ideal partner** for **detecting electric problems, checking mechanical parts, analyzing hydraulic systems, forced ventilation**, etc. These thermal cameras are completed by the **SPAN** function (creation of a temperature range of interest) and the **automatic setting of emissivity** with a preset table of materials.

THT45W 80x80pxl

THT46 160x120pxl

⚙ Functions and characteristics

Characteristics of IR image	THT70	THT60
IR sensor resolution	384x288pxl 25μm	160x120pxl 25μm
Temperature range	-20°C a 400°C	
Thermal sensitivity	< 0,06° @ 30°C	< 0,08° @ 30°C
NETD	< 60mK	< 80mK
Spectrum range 8÷14μm	●	●
IFOV (@1m)	1.14mrad	3.33mrad
Type of sensor IR UFPA	●	●
Frequency 50Hz	●	●
Characteristics of IR and integrated optics		
Field of view (FOV)	24.6° x 18.6° (lens 22mm)	29.8° x 22.6° (lens 7.5mm)
Focal length of standard lens	22mm	7.5mm
Manual focusing of IR optics	●	●
Integrated photo-camera resolution	640x480pxl	
Functions		
Fusion PiP function	●	●
3 cursors: Central, Min, Max.	●	●
Advanced analysis (Line, Areas, Spots)	●	●
Correction functions (%RH,Distance)	●	●
Availabe palettes	8 standard + 10 custom	
Integrated table with emissivity values of common materials	●	●
Alarm thresholds	●	●
Readings in °C, °F, °K	●	●
Class 2 laser pointer	●	●
Integrated white light illuminator	●	●

Data saving	THT70	THT60
Standard format of saved images	JPEG	JPEG
Saving of IR videos in MPEG4 format	●	●
Voice and text annotation	●	●
Additional characteristics		
Capacitive touch-screen colour display	●	●
Power supply with rechargeable battery	●	●
USB interface to PC	●	●
PAL/NTSC video output	●	●

🛒 Included accessories

	Optics 22mm f/1.0 **(THT70)** Optics 7,5 mm f/1.0 **(THT60)**
	Micro SD Card 4GB
BAT7X	Rechargeable Li-ION battery (2x)
	USB cable for PC connection and Video cable
A007X	AC/DC power supply + universal plugs
	Headset with microphone
	User manual on CD-ROM + Quick guide for use
VA6070	Rigid Carrying case
BRC7X	Recharging base
TRIP07X	Adapter for tripod
SSHIELD7X	Sun screen
THTLink	Windows software
	ISO9000 calibration certificate

🎁 Optional accessories

RL-11-70	Optional optics 11mm **(THT70)**
RL-38-70	Optional optics 38mm **(THT70)**
RL-11-60	Optional optics 11mm **(THT60)**
RL-22-60	Optional optics 22mm **(THT60)**
RL-33-60	Optional optics 33mm **(THT60)**

⚙ Functions and characteristics

IR image features	THT46	THT45W
IR sensor resolution	160x120pxl/25μm	80x80pxl/34μm
Temperature range -20°C a 350°C	●	●
Thermal sensitivity < 0,1° @ 30°C	●	●
NETD: < 100mK	●	●
Spectral range 8÷14μm	●	●
IFOV (@1m)	2.78mrad	3.78mrad
Sensor type IR UFPA	●	●
Frequency 50Hz	●	●
IR and integrated optical system features		
Field of view	25° x 19°	17° x 17°
Standard lens focal length 9 mm	●	●
Manual IR optical system focus	●	●
Functions		
PiP Fusion function to mix thermal images with visual images	●	●
3 cursors: Central, Min, Max.	●	●
Reflected temperature correction	●	●
4 color palettes	●	●
Integrated emissivity table of common materials	●	●
Readout in °C, °F, °K	●	●
Laser pointer Class 2	●	●
Built-in white light lamp	●	●
Data saving		
Images saved in standard JPEG format	●	●
Saving IR video and audio in MPEG4 format	●	●

Additional features	THT46	THT45W
Powering with rechargeable battery	●	●
USB port for PC connection	●	●
HDMI output	●	●
WiFi connection for communication with mobile devices	-	● through THTview

🛒 Included accessories

	Micro SD Card 8GB
BAT45N	Rechargeable Li-ION battery
	USB cable for PC connection
	HDMI Video Cable
A0045U	Universal Mini USB adapter + AC/DC plug
	Headset with microphone
	User manual on CD-ROM + quick guide
B45	Soft bag for transport
THTLink	Windows software
	Calibration certificate ISO9000

ORDER CODE **HN000032**

THT32

80x80 pixel

COD. METEL **HN000033**

THT33

COMPACT INFRARED CAMERA WITH 32X31PXL
IR RESOLUTION AND PIP FUNCTION

INFRARED THERMAL CAMERA
WITH RESOLUTION 80x80 AND BLUETOOTH CONNECTION

THT32 is the entry level **thermal imaging camera** for anyone who wants to enter the world of thermographic inspection for the first time.
The device is extremely simple and features an intuitive menu that allows you to set up measurement solutions till now available only on expensive equipment. For example, **you can read all maximum or minimum temperature values by choosing to display on display either a visual image or an infrared image**. The images can be saved and opened later.
An interesting feature of THT32 is the ability to gradually mix the visual image with the infrared image (**PiP**). That's why it represents a handy solution for everyone. Last but not least, THT32 is equipped with a **rechargeable battery**, via **Mini USB**, to charge the battery in any condition (Network, PC, Car).

Model THT33 is a thermal camera with **reduced size** provided with IR sensor with resolution **80x80pxl**, which makes it the ideal device for maintenance operations and **everyday analysis**. THT33 has an **LCD colour display** and a **very simple** menu which allows for a **simple programming**. The temperature range is very wide (**-20°C to 380°C**) and it is possible to save **thermal images** in a BMP format in the internal memory, or to transfer the captured snapshots to mobile devices through the dedicated APP **HTMercury** using the Bluetooth connection. Within the APP, it is possible to carry out advanced analyses and create PDF reports which can be shared by mail and/or via social networks. Thermal camera THT33 **is the ideal solution** for **detecting** electric problems, checking mechanical parts, analyzing hydraulic systems and forced ventilation systems.

32x31 pixel

You Tube

PiP function   Only infrared image

App HT Mercury33

⚙ Functions and features

IR image features
- IR sensor resolution: 32x31pxl
- Temperature range: -20°C ÷ 300°C
- Thermal sensitivity: <0.15°C @ 25°C
- NETD: <150mK
- Spectral range: 6.5 ÷ 14µm
- IFOV (@1m):
- IR sensor type: UPC
- Frequency: 9Hz

IR and integrated optical system features
- Field of view (FOV): 38°x 38°
- Standard lens focal length:
- Focus: automatic

Functions
- Fusion (Blendings) function with adjustable distance
- 3 cursors: Central, Max, Min
- Object emissivity adjustable from 0.10 to 1.00
- Reflected temperature correction
- 5 color palettes
- Readout in °C, °F
- Automatic read lock (HOLD)

Data saving
- Saved images in BMP format
- Save to micro SD card (max 6000 images)

Additional features
- Powering with rechargeable battery
- USB port

🛒 Included accessories

BAT32	Rechargeable Li-ION battery
	Battery charger power supply
	USB cable
	Tripod
	Transport bag
	Micro SD card 4GB + reader
	User manual

⚙ Funzioni e caratteristiche

Characteristics of IR and integrated optics
- Field of view (FOV): 21°x 21°
- Automatic focusing

Functions
- 3 cursors: Central, Max, Min
- Emissivity adjustable from 0.10 to 1.00
- 5 colour palettes
- Reading in °C, °F
- HOLD function

Data saving
- BMP format of saved images
- Saving in the internal memory (max 20 images)
- Download of images to mobile devices via Bluetooth and APP HTMercury

Additional characteristics
- Power supply with rechargeable Li-ION battery
- USB interface for battery recharge
- Built-in white-light torch
- Automatic/Manual temperature span
- D/S ratio: 74:1

Characteristics of IR image
- Resolution of IR sensor: 80x80pxl
- Temperature range: -20°C ÷ 380°C
- Thermal sensitivity: <0.1°C @ 30°C
- NETD: <100mK
- Spectrum range: 8 ÷ 14µm
- Type of IR sensor: UFPA
- Frequency: 50Hz

🛒 Included accessories

Built-in rechargeable Li-ION battery
Battery charger power supply
USB cable for battery recharge
Carrying bag
Non-slip strap
User Manual
ISO9000 calibration certificate