Thermal
Imaging App

SUPER
RESOLUTION
4x
MORE PIXELS

Testo thermal imaging cameras

See more. Know more. Do more.

www.testo.co.uk

Simply see more without contact.

The measuring instrument for every application: there are hardly any measuring instruments that are as versatile as a thermal imager. The areas where the visualisation of temperatures makes your work easier include the following:

- In building thermography a Testo thermal camera helps you to detect thermal bridges and structural defects.
- In heating engineering you can use thermography to check underfloor heating is working properly or for the non-destructive detection of leaks.
- In maintenance a thermal camera enables you to see wear before systems fail.
- In electrical inspection, thermography enables the immediate and precise detection of both existing defects and potential sources of faults and danger.

Testo thermal imagers:

- prevent damage and save money
- stand out thanks to razor-sharp images
- ensure fast, comprehensive analysis
- are intuitively operated
- guarantee a large image section thanks to the wide-angle lenses

Optimum image resolution, high-quality system components and quality "Made in Germany": simply better thermography with Testo and the experience of 60 years in measurement technology!

SUPER RESOLUTION
4x MORE PIXELS

For day-to-day work in buildings, heating, electrical and preventative maintenance

Thanks to outstanding detector and lens quality as well as intelligent system solutions, details are never overlooked. In addition to the intuitive menu, the PC software IRSoft guarantees fast and comprehensive analysis of the image data.

Even the smallest temperature differences can be identified with the excellent temperature resolution of Testo thermal imagers. Thermography with Testo thermal imagers saves you time, energy and money.

Optimum image quality and innovative technology

Testo offers the right thermal imager for every application in thermography. With high-quality germanium optics and the best detector quality, Testo thermal imagers guarantee optimum image quality for every thermographic application. With SuperResolution technology, the geometric resolution of each thermal image is improved by a factor of 1.6 – with four times more pixels.

High-performance, intuitive and reliable

Intuitive operation and user-friendly handling offer security and flexibility in every situation. The high-performance PC software IRSoft offers extensive functions for the professional analysis of your thermal images: It allows sophisticated image analyses, provides templates for convenient reporting and with TwinPix offers image overlay of real and thermal images. This means the information from both these images can be presented together in one image on the PC.

What is thermography?

Infrared radiation cannot be seen by the human eye. Thermal imagers, on the other hand, can convert this infrared radiation into electrical signals and present them as a thermal image. This makes the heat radiation visible for humans.

testo thermal imaging camera range.

testo 865
thermal imaging camera

- Infrared resolution 160 x 120 pixels
- SuperResolution technology available in the imager and App (to 320 x 240 pixels)
- Thermal sensitivity 0.12 °C
- Automatic detection of hot and cold spots
- IFOV warner
- testo ScaleAssist
- Pro software for image evaluation on the PC

See pages 16 & 17

£699.00

testo 868
thermal imaging camera

- Infrared resolution 160 x 120 pixels
- SuperResolution technology available in the imager and App (to 320 x 240 pixels)
- Thermal sensitivity 0.10 °C
- Automatic detection of hot and cold spots
- IFOV warner
- Integrated digital camera
- Thermography App
- testo ScaleAssist- testo ε-Assist
- Pro software for image evaluation on the PC

See pages 18 & 19

£1,099

testo 872
thermal imaging camera

- Infrared resolution 240 x 180 pixels
- SuperResolution technology available in the imager and App (to 480 x 360 pixels)
- Thermal sensitivity 0.09 °C
- Automatic detection of hot and cold spots
- IFOV warner
- Integrated digital camera
- Thermography App
- testo ScaleAssist- testo ε-Assist
- Pro software for image evaluation on the PC
- Measurement mode for detecting areas with danger of mould
- Bluetooth connectivity with thermohygrometer testo 605i and clamp meter testo 770-3 (option)

See pages 20 & 21

£1,590

NEW FOR 2020
testo 872 now with free testo 605i

testo 872 thermal imager building inspection kit with free testo 605i Smart Probe

- Infrared resolution 320 x 240 pixels
- SuperResolution technology available in the imager and App (to 640 x 480 pixels)
- Thermal sensitivity 0.06 °C
- Includes testo 605i smart thermohygrometer
- Automatic detection of hot and cold spots
- IFOV warner
- Integrated digital camera and laser marker
- Thermography App
- testo ScaleAssist- testo ε-Assist
- Pro software for image evaluation on the PC
- Min/max/average on area
- Measurement mode for detecting areas with danger of mould
- Bluetooth connectivity with clamp meter testo 770-3 (option)

See pages 22 & 23

£1,990

For even more meaningful thermal images, the testo 871 and 872 thermal imagers also integrate the measurement values of the clamp probe testo 770-3, as well as the thermohygrometer testo 605i via a Bluetooth connection.

The new testo 872 building inspection kit includes the testo 605i. The testo 605i is also available as an option on the testo 871. The testo 770-3 is avaialble as an option with both thermal imagers.

testo 875i

- Infrared resolution 160 x 120 pixels
- SuperResolution technology
  (to 320 x 240 pixels)
- Thermal sensitivity 0.05 °C
- Large field of view with 32° lens
- Exchangeable lenses
- Built-in digital camera with power LEDs
- Laser pointer
- Lens protection glass
- Voice recording using headset
- Min/max on area calculation
- Solar mode
- Measurement mode for detecting areas with
  danger of mould

from £1,790

See pages 24 & 25

testo 882

- Infrared resolution 320 x 240 pixels
- SuperResolution technology
  (to 640 x 480 pixels)
- Thermal sensitivity 0.05 °C
- Large field of view with 32° lens
- Built-in digital camera with power LEDs
- Laser pointer
- Lens protection glass
- Voice recording using headset
- Min/max on area calculation
- Solar mode
- Measurement mode for detecting areas
  with danger of mould

£2,990

See pages 26 & 27

Features of testo thermal imaging cameras.

640 X 480
Good pixel resolution provides fine detail and clarity, increased 4x with testo SuperResolution

NETD < 90 mK
Strong thermal sensitivity to highlight temperature differences

32x23°
Display large image section thanks to wide field of view lenses

-10.2°C / +83.4°C
Hot spot / cold spot recognition

App
Free App connection via WiFi (testo 868, 871, 872)

Bluetooth
Bluetooth connectivity to testo 770-3 and 605i (testo 871, 872)

Laser marker (testo 871, 872, 875i, 882)

%RH
Surface moisture mode (testo 871, 872, 875-2i)

Testo thermal imaging cameras
for many applications.

Thermal imaging cameras are highly versatile and can be deployed wherever there is a need to visualise temperature, making them a measuring instrument for many varied applications.
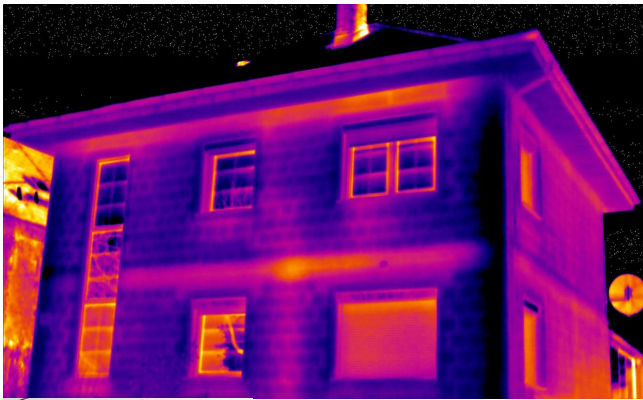
1. Detecting structural defects and ensuring construction quality

Inspection with a Testo thermal imager is a fast and efficient method of detecting possible structural defects. In addition, Testo thermal imagers are suitable as proof of the quality and the correct implementation of structural renovation measures. Heat loss, moisture and lack of air-tightness in a building are visible in a thermal image. Faulty thermal insulation and structural damage are also detected – without contact.

2. Carrying out detailed energy consultancy

In building thermography, infrared technology is ideally suited for the fast and effective analysis of energy losses in the heating or air conditioning of buildings. Thanks to their high temperature resolution, Testo thermal imagers provide detailed images of inadequate insulation and thermal bridges. They are ideal for the recording and documentation of energy losses on outer windows and doors, roller blind casings, radiator niches, in roof structures or the entire building shell. Testo thermal imagers are the perfect tool for comprehensive diagnosis and maintenance when providing energy consultation services.

3. Electrical testing

Testo thermal imaging cameras allow a safe and effective evaluation of the heat status of low, medium, and high voltage electrical systems. Thermal imaging can lead to early diagnosis and recognition of defective components and connections, so that the required preventative steps can be taken. This minimises the potential risk of overheating and subsequent fires that can be initiated, and also avoids costly production downtime through preventative maintenance.
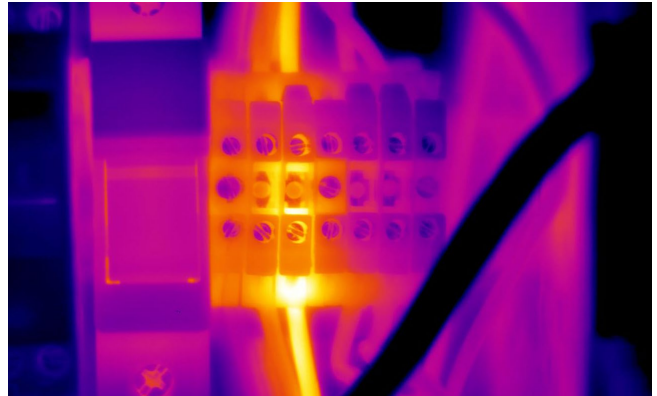
4. Easy checking of heating systems and installations

Testo thermal imagers can be used to quickly and reliably check heating, ventilation and air conditioning installations as they are easy and intuitive to operate. A glance with the thermal imager is enough to discover irregular temperature distribution. Silting and blockages in radiators, for example, are reliably detected.
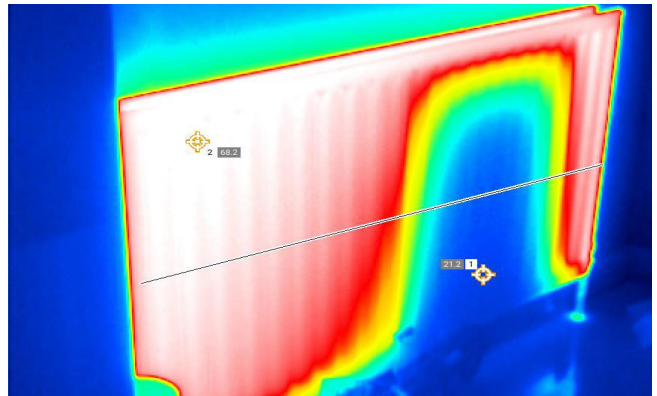
5. Hot on the trail of a ruptured pipe

If a pipe rupture is suspected, often the only solution is to break open the entire wall or flooring area. With Testo thermal imagers, you can minimise the damage and reduce the cost of your work. Leakages in underfloor heating and other inaccessible pipes are located precisely and without damage. This avoids opening walls unnecessarily and considerably reduces the repair costs.
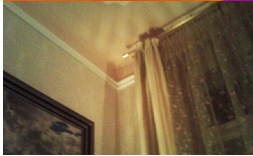
6. Investigating moisture damage

Not every damp wall is caused by a ruptured pipe. Rising damp or penetrating water due to the faulty implementation of rain and drain water flow-off can cause damp walls. Moisture damage can also occur due to blocked drains or insufficient seepage. Testo thermal imagers find the cause of rising damp or penetrating rainwater straight away, before the water causes major damage.
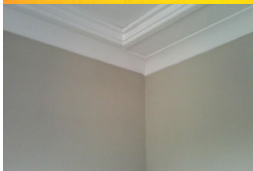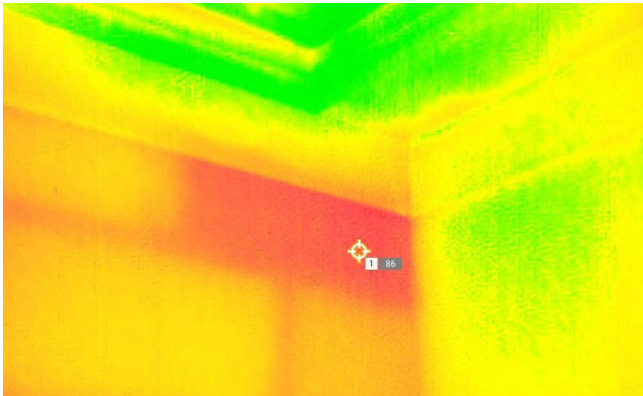
7. Preventing mould formation

Thermal bridges waste energy. Condensation can also form in these places due to humidity in the ambient air. As a result, mould forms in these locations with the associated health risks for the occupants. Testo thermal imagers use the externally determined ambient temperature and humidity as well as the measured surface temperature to calculate the relative surface moisture value for each measuring point. The mould risk is therefore visible on the display before it becomes visible to the naked eye: areas at risk are displayed in red, those not at risk in green. This makes it possible to introduce measures to prevent dangerous mould formation at an early stage - including in hidden corners and niches.
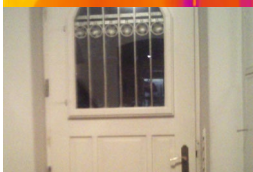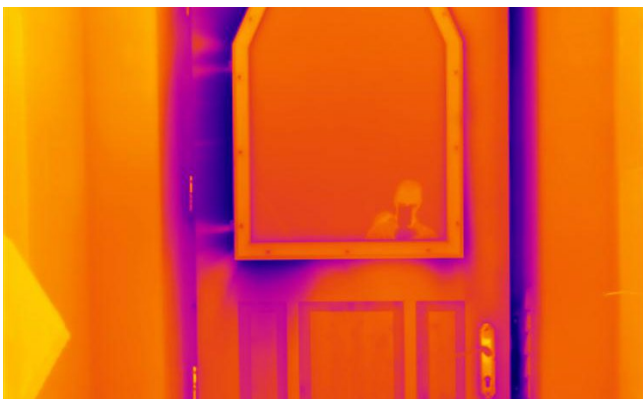
8. Testing the air tightness of new buildings

If doors or windows are not correctly fitted, in winter cold air can enter or warm indoor air can escape. This results in draughts, increased ventilation heat loss and above all high energy costs. The combination of thermography and BlowerDoor has proved its worth. This procedure involves creating a negative pressure in the building, so that cool outside air can flow into the interior of the building through leaky joints and cracks. The Testo thermal imager makes it easy to detect any leaks.

9. Locate roof leaks exactly

Damp areas in the roof structure, in particular in flat roofs, store the warmth from the sun for longer than intact areas. This means the roof structure cools unevenly in the evenings. Testo thermal imagers use these temperature differences to pinpoint the exact roof areas with trapped moisture or damaged sealing.
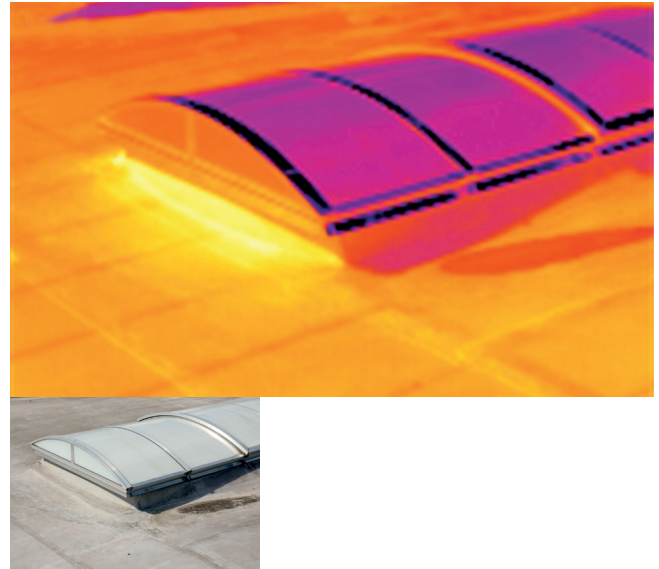

10. Monitoring and checking solar energy systems

There are two main reasons for inspecting solar energy systems: safety and performance monitoring. Solar energy systems achieve their top performance in full sunshine. Testo thermal imagers can be used to monitor photovoltaic systems of all sizes in a way that is wide-ranging, contact-free and exceptionally efficient. Malfunctions are detected, the proper functioning of all components is ensured and the greatest possible efficiency is thus achieved. The option of inputting solar radiation intensity, the key measurement parameter, offers extra reliability: the value entered is stored with the thermal image and is subsequently available for image analysis.
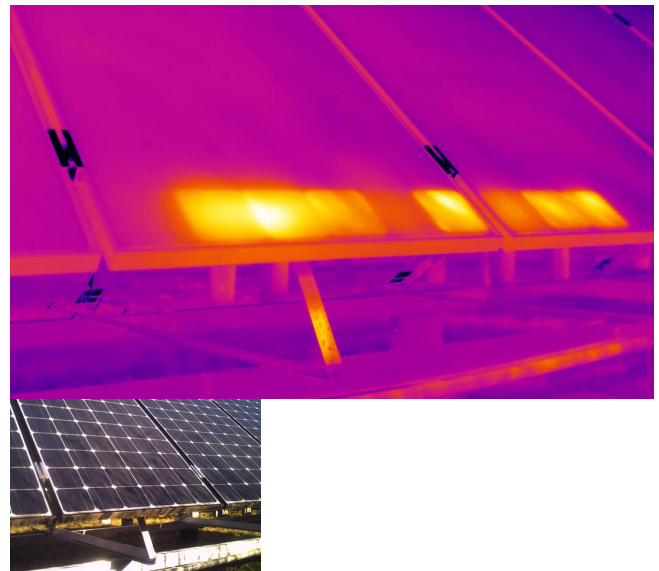
11. Mechanical testing :

With many mechanical systems a high level of heat emissions could be indicative of problems such as frictional wear or lack of lubrication. With the ability to work across a wide temperature range testo thermal imaging cameras can offer a fast non-contact route to diagnosis of such issues in a wide range of mechanical systems such as motors, gearboxes, bearings, conveyors, heat-sealing, and general process machinery. The ability to take images over a time period allows engineers to determine general wear cycles across operating machinery to then ensure correct preventative maintenance takes place.
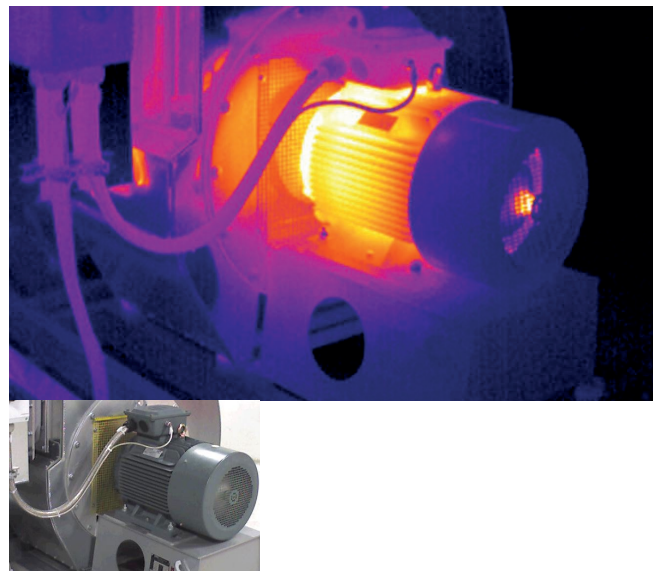
Fever detection and disease prevention
using thermal imaging.

In times of increasing mobility, infections don't stop at national borders either. Whether ebola, SARS, swine flu or COVID-19: no-one wants to imagine the consequences of an epidemic or even a pandemic. That's why it's in the interest of public health to identify risk individuals in large groups of people early. The operators of heavily frequented facilities such as airports, shopping malls or sports stadiums carry a special responsibility for disease prevention.

Why fever measurement with thermography?
An important indicator for an infection is increased body temperature (compared to other people in the immediate surroundings), generally known as fever.

Thermography is the ideal method for scanning not just individuals, but also large flows of people. To do this, the temperature at the inner corner of the eye is measured, and an alarm triggered if it deviates. This allows persons with increased body temperature to be identified quickly and reliably, and to be isolated for more exact testing.

Why testo thermal imagers for fever measurement?

With the **testo FeverDetection assistant**, the testo 885 and testo 890 thermal imaging cameras are perfect for identifying potentially ill individuals:

• Reliable: up to 1280 x 960 pixels resolution (with testo SuperResolution) and good thermal sensitivity

• Flexible: thanks to an HDMI interface for data transfer to an external screen, they can also be used in semi-stationary applications such as security checks

• Easy: can be used by the most diverse staff, thanks to high level of user convenience

Testo SuperResolution technology.

High-resolution thermal images

Optimum thermography is simple: the better the image resolution and the more pixels, the more detailed and clearer the display of the measuring object will be. And high-resolution image quality is particularly essential if you are unable to get very close to the measuring object or need to detect the finest structures. This is because the more you can detect in the thermal image, the better your analysis will be.

Standard thermal image

SuperResolution technology

SuperResolution thermal image
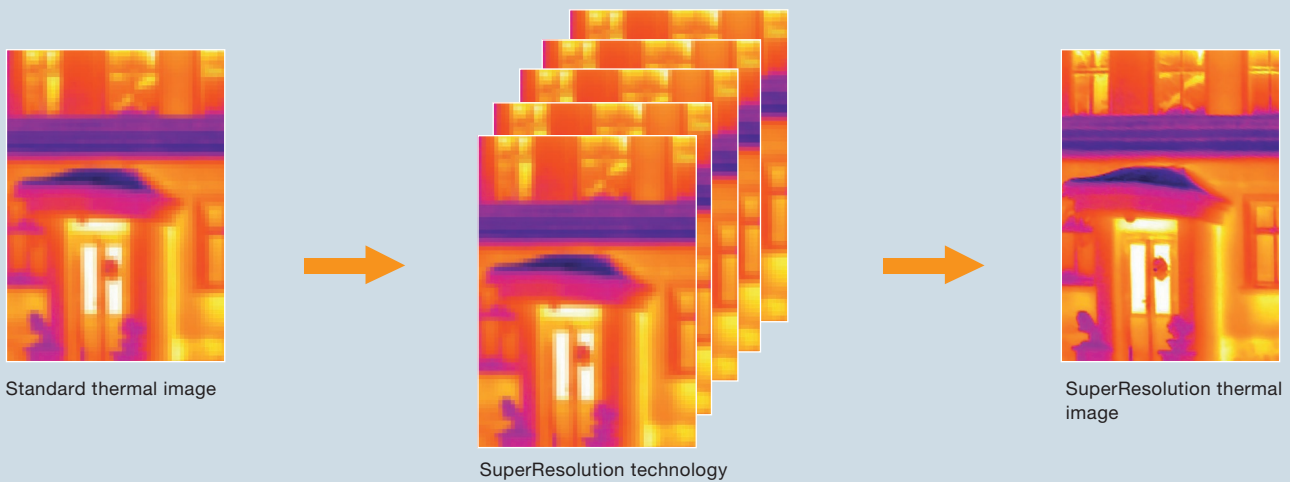
Simply see more with SuperResolution

With the SuperResolution technology included in all Testo thermal imagers, the image quality of the Testo thermal imagers is improved by one class, i.e. by four times more pixels and a geometric resolution improved by a factor of 1.6. For example, 160 x 120 pixels turns into 320 x 240 pixels, or 640 x 480 pixels into 1280 x 960 pixels.

The innovation from Testo uses your natural hand movements and takes multiple, slightly offset images very rapidly one after another. Using an algorithm, these are then calculated to obtain an image. The result: Four times more pixels and a considerably better geometric resolution of the thermal image. The SuperResolution technology thus delivers high-resolution thermal images. In the case of the thermal imagers testo 865, testo 868, testo 871 and testo 872, the SuperResolution thermal images can be viewed directly in the imager and in the Thermography App.

SUPER RESOLUTION 4x MORE PIXELS

PC software IRSoft.

IRSoft – the high-performance PC software for professional thermography analysis from Testo. IRSoft enables thermograms to be analysed comprehensively on a PC. It is characterised by its clear structure and excellent user-friendliness. All analysis functions are explained using easily comprehensible symbols. Tool tips additionally provide explanations of each function by mouseover. This assistance simplifies image processing and allows intuitive operation. A fully functional version of the PC software IRSoft is included with all Testo thermal imagers.

IRSoft – precise analysis of thermal images

IRSoft enables users to conveniently process and analyse infrared images on a PC. Extensive functions are available for professional image analysis. For example, the different emission levels of various materials can be corrected afterwards for image areas, right up to individual pixels. The histogram function shows the temperature distribution of an image area. Up to five profile lines can be used to analyse the temperature curves. In order to visualise critical temperatures in an image, limit value violations as well as pixels in a specific temperature range can be emphasised. In addition, unlimited measurement points can be set, hot/cold spots determined and comments on the analysis made.

Easy creation of professional thermography reports

Infrared and real images are displayed in the screen during the analysis and automatically transferred into the report. This makes it possible to simply and professionally document the measurement results.
The report assistant guides you step by step to a complete and clear report. Different templates are available for both short, quick reports and more comprehensive documentation. The templates contain all the relevant information on the measuring location, measuring task and inspection results. In addition, the report designer can be used to create user-defined templates for individual reports.

IRSoft – everything important at a glance

Several infrared images can be opened and analysed in parallel. All analyses in the images are visible at a glance and can be compared. Settings can be adjusted for either the entire infrared image or individual image sections. It is also possible to transfer current image corrections to all open infrared images with a mouse click.

Simultaneous evaluation and comparison of several images
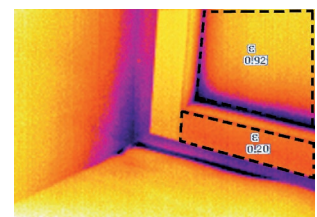
Change the emissivity of certain areas, for precise temperature analysis
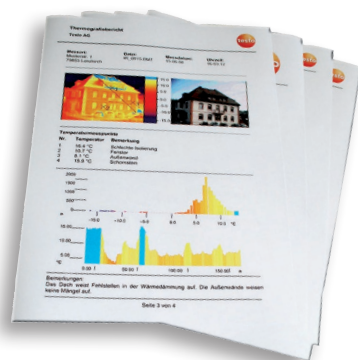
Multi-page reports for complete documentation

With IRSoft from Testo:

- analyse thermal images precisely

- create professional thermography reports quickly and easily

- analyse and compare several images simultaneously

TwinPix – thermal and real images in one.

Testo thermal imagers with an integrated digital camera automatically store both an infrared and a real image. With the professional image overlay TwinPix, these two images can be overlaid in the PC software IRSoft. The information from the thermal image and the real image is then jointly displayed in a single image.
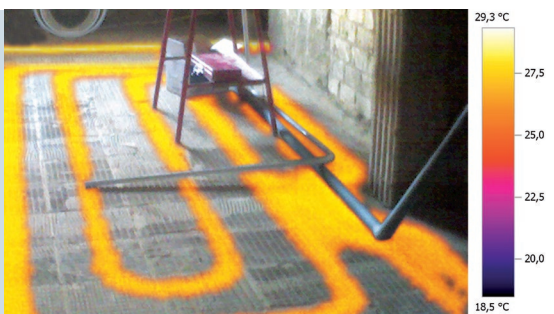
See hidden pipelines even in the real image, with TwinPix

TwinPix

Function of the PC software: Image overlay TwinPix

Straight to the perfect result with Testo TwinPix
By setting marking points which correspond in the thermal and the real image, the images are overlaid exactly. Even scenes with measurement objects at different distances can be blended without a problem, and shown simultaneously in one image.

Show what's important with the professional image overlay from Testo
During the analysis, the image overlay helps with the orientation in the image and with the exact localisation of the damage location. Setting the transparency level allows regulation of the intensity of the infrared or the real image component in the overlay. Critical temperature ranges can be marked by inserting infrared limit values and the infrared range. Even in the real image, problem areas can be directly emphasised, and the temperature status of the measurement object displayed plastically. The overlaid image is taken over into the report for documentation purposes.

Overview of Testo thermal imaging cameras.

Features	testo 865	testo 868	testo 871	testo 872	testo 875-1i	testo 875-2i	testo 882
Infrared resolution (pixels)	160 x 120	160 x 120	240 x 180	320 x 240	160 x 120	160 x 120	320 x 240
SuperResolution technology (in pixels)	to 320 x 240	to 320 x 240	to 480 x 360	to 640 x 480	to 320 x 240	to 320 x 240	to 640 x 480
Thermal sensitivity (NETD)	120 mK	100 mK	< 90 mK	< 60 mK	< 50 mK	< 50 mK	< 50 mK
Measuring range	-20 to +280 °C	-30 to +100 °C 0 to +650 °C	-30 to +100 °C 0 to +650 °C	-30 to +100 °C 0 to +650 °C	-30 to +350 °C	-30 to +350 °C	-20 to +350 °C
Image refresh rate	9 Hz	9 Hz	9 Hz	9 Hz	33 Hz	33 Hz	33 Hz
Standard lens: FOV $IFOV_{geo}$ / $IFOV_{geo-SR}$	31° x 23° 3.4 mrad	31° x 23° 3.4 mrad	35° x 26° 2.6 mrad	42° x 30° 1.3 mrad	32° x 23° 3.3 / 2.1 mrad	32° x 23° 3.3 / 2.1 mrad	32° x 23° 1.7 / 1.1 mrad
Exchangeable telephoto lens: FOV $IFOV_{geo}$ / $IFOV_{geo-SR}$ Exchangeable super telephoto lens: $IFOV_{geo}$ / $IFOV_{geo-SR}$	–	–	–	–	–	(9° x 7°) (1.0 / 0.6 mrad)	–
Focusing	Fixed focus	Fixed focus	Fixed focus	Fixed focus	Manual	Manual	Manual / motor
High temperature measurement	✓	✓	✓	✓	–	up to 550 °C	up to 550 °C
Centre point measurement	✓	✓	✓	✓	✓	✓	✓
Auto Hot/Cold Spot Recognition	✓	✓	✓	✓	✓	✓	✓
Min/max on area calculation	–	–	–	✓	–	✓	✓
Isotherm functions	–	–	–	–	–	✓	✓
Alarm value function	–	–	–	–	–	–	–
Display of surface moisture distribution via manual input	–	–	✓	✓	–	✓	✓
Humidity measurement with wireless humidity probe	–	–	✓	✓	–	✓	✓
Solar mode	–	–	✓	✓	✓	✓	✓
Voice recording	–	–	–	–	–	✓	✓
Save JPEG function	✓	✓	✓	✓	–	–	–
Integrated digital camera	–	✓	✓	✓	640 x 480 pixels	640 x 480 pixels	640 x 480 pixels
Integrated power LEDs	–	–	–	–	–	✓	✓
Laser	–	–	–	Laser marker	Laser pointer	Laser pointer	Laser pointer
IFOV warner	✓	✓	✓	✓	–	–	–
testo Thermography App	–	✓	✓	✓	–	–	–
testo ScaleAssist	✓	✓	✓	✓	–	–	–
testo ε-Assist	–	✓	✓	✓	–	–	–

Functions of the testo 865, 868, 871 and 872 thermal imaging cameras.

testo ScaleAssist: **Comparable thermal images**

With testo ScaleAssist, the correct evaluation of construction errors and thermal bridges is easier than ever before, since the thermal image scale is automatically and optimally set. This prevents interpretation errors which can be caused by a false setting of the scaling. Undesired extreme temperatures are automatically filtered out, and building faults realistically presented. This makes infrared images comparable in spite of altered ambient conditions. This is of great significance in before-and-after images, for example.

Without ScaleAssist

With ScaleAssist ▶
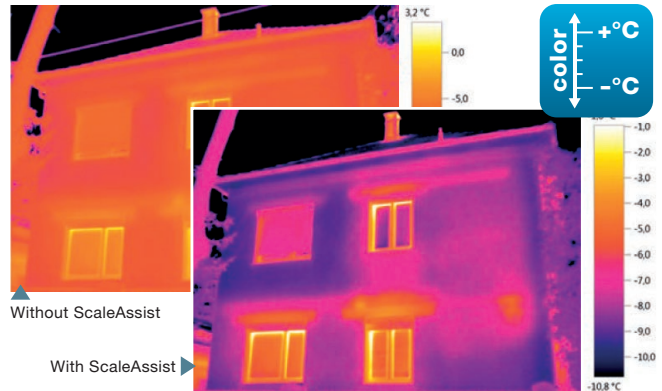
testo ε-Assist: **Set emissivity automatically**

For precise thermal images, it is important to set the emissivity (ε) and the reflected temperature (RTC) of the object in the imager. Up to now, this has been time-consuming and may be inaccurate. This changes with testo ε-Assist: Simply attach one of the reference stickers (ε-markers) included in delivery to the measurement object. Via the integrated digital camera, the thermal imager recognises the sticker, determines the emissivity and reflected temperature and sets both values automatically.


Attach marker and record object

ε and RTC are automatically determined

testo Thermography App **for analysis and reporting**

With the free testo Thermography App, available for iOS and Android, compact reports can be made quickly, saved online and sent by e-mail. Apart from this, the App offers useful tools for fast analysis on site – for example, when inserting additional measurement points, determining the temperature development via a line or adding comments to a thermal image. Also very useful: With the App you can use your smartphone/tablet as a second display or as a remote control.

testo Thermography App: download free of charge for iOS or Android

Connectivity **with testo 605i and testo 770-3**

The testo 871 and 872 thermal imaging cameras can be connected wirelessly to the thermohygrometer testo 605i and the clamp probe testo 770-3. The measurement values of both compact measuring instruments are transmitted to the imagers by Bluetooth. This allows you to identify quickly and clearly in the thermal image where exactly in a building damp spots are located or at what load a switching cabinet is running.
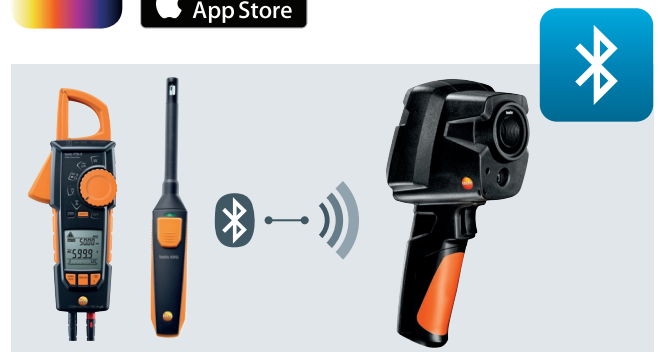
testo 865 thermal imaging camera

The testo 865 thermal imager is the ideal entry into the world of thermography. It stands out thanks to the best image quality in its class and handy operation, is robust enough to withstand tough daily use, and has useful functions for even better thermal images.

All this at a ground-breaking price-performance ratio. Switch on, aim, know more.

160 x 120 pixel resolution
(with testo SuperResolution (320 x 240 pixels))

120 mK thermal sensitivity

31° x 23° field of view lens

Hot spot /cold spot recognition

Applications

- General testing of heating systems
- Preventative industrial maintenance

testo 865

Thermal imager testo 865 with integrated testo SuperResolution, USB cable, mains unit, Lithium ion rechargeable battery, pro software, quick-start guide, short instructions, calibration certificate and case

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

Order no. 0560 8650

£699.00

Technical data

Infrared image output	
Infrared resolution	160 x 120 pixels
Thermal sensitivity (NETD)	120 mK
Field of view/min. focusing distance	31° x 23° / < 0.5 m
Geometric resolution (IFOV)	3.4 mrad
testo SuperResolution (Pixel/IFOV)	320 x 240 pixels 2.1 mrad
Image refresh rate	9 Hz
Focus	Fixed focus
Spectral range	7.5 to14 µm
Image presentation	
Image display	8.9 cm (3.5") TFT, QVGA (320 x 240 pixels)
Display options	IR image
Colour palettes	iron, rainbow HC, cold-hot, grey
Data interfaces	
USB 2.0 Micro B	included
Measurement	
Measuring range	-20 to +280 °C
Accuracy	±2 °C, ±2 % of measured value
Emissivity / reflected temperature compensation	0.01 to 1 / manual
Measurement functions	
Analysis functions	Mean point measurement, hot/cold-spot recognition, Delta T,
testo ScaleAssist	included
IFOV warner	included

Imager equipment	
Lens	31° x 23°
Video streaming	via USB
Storage as JPG	included
Fullscreen mode	included
Image storage	
File format	.bmt and .jpg; export options in .bmp, .jpg, .png, .csv, .xls
Memory	Internal memory (2.8 GB)
Power supply	
Battery type	Li-ion battery can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	included
Ambient conditions	
Operating temperature range	-15 to +50 °C
Storage temperature range	-30 to +60 °C
Air humidity	20 to 80 %RH, not condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G
Physical features	
Weight	510 g
Dimensions (LxWxH)	219 x 96 x 95 mm
Housing	PC - ABS
PC software	
System requirements	Windows 10, Windows 8, Windows 7
Standards, tests	
EU directive	2014/30/EU

Accessories	Order no.	
Spare battery, additional Lithium ion rechargeable battery for extending the operating time.	0515 5107	£21.49
Battery charger, desktop charging station for optimising the charge time.	0554 1103	£34.90
Holster case	0554 7808	£41.90

testo 868 thermal imaging camera

Thermography connected – with the testo 868 thermal imaging camera. It has the best thermal image quality in its class, an integrated digital camera, and stands out thanks to smart new features. The testo Thermography App wirelessly integrates measurement values, turning your smartphone or tablet into a second display. In addition to this, you can operate the imager with the App as well as creating and sending reports on site.

160 x 120 pixel resolution
(with testo SuperResolution 320 x 240 pixels)

100 mK thermal sensitivity

31° x 23° field of view lens

Hot spot /cold spot recognition

Free App connection via WiFi

Applications
- Testing of heating systems
- Preventative industrial maintenance

testo 868

Thermal imager testo 868 with wireless module BT/wireless LAN, USB cable, mains unit, Lithium ion rechargeable battery, pro software, 3 x ε-markers, quick-start guide, short instructions, calibration certificate and case

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

Order no. 0560 8681

£1,099.00

Technical data

Infrared image output	
Infrared resolution	160 x 120 pixels
Thermal sensitivity (NETD)	100 mK
Field of view/min. focusing distance	31° x 23° / < 0.5 m
Geometric resolution (IFOV)	3.4 mrad
testo SuperResolution (Pixel/IFOV)	320 x 240 pixels 2.1 mrad
Image refresh rate	9 Hz
Focus	Fixed focus
Spectral range	7.5 to14 μm

Visual image output	
Image size / min. focusing distance	at least 3.1 MP / 0.5 m

Image presentation	
Image display	8.9 cm (3.5") TFT, QVGA (320 x 240 pixels)
Display options	IR image / real image
Colour palettes	iron, rainbow HC, cold-hot, grey

Data interfaces	
WLAN Connectivity	Communication with the testo Thermography App wireless module BT/WLAN (EU, EFTA, USA, AUS, CDN, TR)
USB 2.0 Micro B	included

Measurement	
Measuring ranges	Measuring range 1: -30 to +100 °C Measuring range 2: 0 to +650 °C
Accuracy	±2 °C, ±2 % of measured value
Emissivity / reflected temperature compensation	0.01 to 1 / manual
testo ε-Assist	Automatic recognition of emissivity and determination of reflected temperature (RTC)

Measurement functions	
Analysis functions	Mean point measurement, hot/cold-spot recognition, Delta T,
testo ScaleAssist	included
IFOV warner	included

Imager equipment	
Digital camera	4
Lens	31° x 23°
Video streaming	via USB, via wireless LAN with testo Thermography App
Storage as JPG	4
Fullscreen mode	4

Image storage	
File format	.bmt and .jpg; export options in .bmp, .jpg, .png, .csv, .xls
Memory	Internal memory (2.8 GB)

Power supply	
Battery type	Li-ion battery can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	included

Ambient conditions	
Operating temperature range	-15 to +50 °C
Storage temperature range	-30 to +60 °C
Air humidity	20 to 80 %RH, not condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G

Physical features	
Weight	510 g
Dimensions (LxWxH)	219 x 96 x 95 mm
Housing	PC - ABS

PC software	
System requirements	Windows 10, Windows 8, Windows 7

Standards, tests, warranty	
EU directive	EMC: 2014/30/EU RED: 2014/53/EU
Warranty	2 years

Accessories	Order no.	
Spare battery, additional Lithium ion rechargeable battery for extending the operating time.	0515 5107	£21.49
Battery charger, desktop charging station for optimising the charge time.	0554 1103	£34.90
Pack of 10 x testo ε-markers for use with ε-Assist function (868/871/872 only	0554 0872	£21.90
Holster case	0554 7808	£41.90

testo Thermography App
With the testo Thermography App, your smartphone/tablet becomes a second display, and a remote control for your thermal imager. In addition to this, you can use the App to create and send compact reports on site, and to save them online. Download for Android or iOS now free of charge.

testo 871 thermal imaging camera

The testo 871 thermal imager offers a high-quality 240 x 180 pixel detector, connectivity via the testo Thermography App, as well as the innovative functions testo ScaleAssist and testo ε-Assist, which enables objectively comparable and error-free thermal images to be recorded. For even more meaningful thermal images, the testo 871 thermal imager also integrates the measurement values of the clamp probe testo 770-3 as well as the thermohygrometer testo 605i via a Bluetooth connection (both available as an option).

240 x 180 pixel resolution (with testo SuperResolution 480 x 360 pixels)

90 mK thermal sensitivity

35° x 26° field of view lens

Hot spot /cold spot recognition

Free App connection via WiFi

Bluetooth connectivity to testo 770-3 / testo 605i

Laser marker

Applications

• Electrical thermography
• Buildings thermography
• Preventative industrial maintenance

testo 871

Thermal imager testo 871 with wireless module BT/wireless LAN, USB cable, mains unit, Lithium ion rechargeable battery, pro software, 3 x ε-markers, quick-start guide, short instructions, calibration certificate and case

Order no. 0560 8712

£1,590.00

SUPER RESOLUTION
4X MORE
MEASUREMENT VALUES

testo Thermography App
With the testo Thermography App, your smartphone/tablet becomes a second display, and a remote control for your thermal imager. In addition to this, you can use the App to create and send compact reports on site, and to save them online. Download for Android or iOS now free of charge.

Compatible measuring instruments		
	Order no.	Price
testo 605i thermohygrometer • Measurement of air humidity and air temperature to identify mould risk • Transmission of measurement values to the testo 871 via Bluetooth	0560 1605	£75.00
testo 770-3 clamp meter including batteries and measuring cables • Auto AC/DC and large two-line display • Transmission of measurement values to the testo 871 thermal imager via Bluetooth	0590 7703	£149.00

Technical data

Infrared image output	
Infrared resolution	240 x 180 pixels
Thermal sensitivity (NETD)	90 mK
Field of view/min. focusing distance	35° x 26° / < 0.5 m
Geometric resolution (IFOV)	2.6 mrad
testo SuperResolution (Pixel/IFOV)	480 x 360 pixels 1.6 mrad
Image refresh rate	9 Hz
Focus	Fixed focus
Spectral range	7.5 to14 µm

Visual image output	
Image size / min. focusing distance	at least 3.1 MP / 0.5 m

Image presentation	
Image display	8.9 cm (3.5") TFT, QVGA (320 x 240 pixels)
Display options	IR image / real image
Colour palettes	iron, rainbow HC, cold-hot, grey

Data interfaces	
WLAN Connectivity	Communication with the testo Thermography App
Bluetooth[1]	Measurement value transfer from thermohygrometer testo 605i, clamp meter testo 770-3 (optional)
USB 2.0 Micro B	included

Measurement	
Measuring ranges	Measuring range 1: -30 to +100 °C Measuring range 2: 0 to +650 °C
Accuracy	±2 °C, ±2 % of measured value
Emissivity / reflected temperature compensation	0.01 to 1 / manual
testo ε-Assist	Automatic recognition of emissivity and determination of reflected temperature (RTC)

Measurement functions	
Analysis functions	Mean point measurement, hot/cold-spot recognition, Delta T,
testo ScaleAssist	included
IFOV warner	included
Humidity mode – manual	included
Humidity measurement with humidity measuring instrument[1]	Automatic measurement value transfer of thermohygrometer testo 605i via Bluetooth (instrument must be ordered separately)
Solar mode – manual	Input of solar radiation value
Electrical mode – manual	Input of current, voltage or power
Electrical measurement with clamp meter[1]	Automatic measurement value transfer of clamp meter testo 770-3 via Bluetooth (instrument must be ordered separately)

Imager equipment	
Digital camera	included
Lens	35° x 26°
Video streaming	via USB, via wireless LAN with testo Thermography App
Storage as JPG	included
Fullscreen mode	included

Image storage	
File format	.bmt and .jpg; export options in .bmp, .jpg, .png, .csv, .xls
Memory	Internal memory (2.8 GB)

Power supply	
Battery type	Li-ion battery can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	included

Ambient conditions	
Operating temperature range	-15 to +50 °C
Storage temperature range	-30 to +60 °C
Air humidity	20 to 80 %RH, not condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G

Physical features	
Weight	510 g
Dimensions (LxWxH)	219 x 96 x 95 mm
Housing	PC - ABS

PC software	
System requirements	Windows 10, Windows 8, Windows 7

Standards, tests, warranty	
EU directive	EMC: 2014/30/EU RED: 2014/53/EU
Warranty	2 years

[1] Wireless permit in EU, EFTA, USA, Canada, Australia, Turkey

Accessories	Order no.	
Spare battery, additional Lithium ion rechargeable battery for extending the operating time.	0515 5107	£21.49
Battery charger, desktop charging station for optimising the charge time.	0554 1103	£34.90
Pack of 10 x testo ε-markers for use with ε-Assist function (868/871/872 only	0554 0872	£21.90
Holster case	0554 7808	£41.90

testo 872 thermal imager building inspection kit (with free testo 605i Smart Probe)

The testo 872 thermal imager stands out thanks to its resolution of 320 x 240 pixels, an excellent thermal sensitivity of 60mK, numerous innovative functions, smartphone connection via the testo Thermography App and the best price-performance ratio of its class. The new testo 872 building inspection kit also includes a testo 605i Bluetooth Smart Probe which measures air temperature and humidity - in combination, the instruments can be used to reliably and accurately visualise mould risk.

320 x 240 pixel resolution (with testo SuperResolution 640 x 480 pixels)

60 mK thermal sensitivity

42° x 30° field of view lens

Hot spot /cold spot recognition / delta-T

Free App connection via WiFi

Bluetooth connectivity to free testo 605i and testo 750-3 (optional extra)

Laser marker

Applications

- Visualisation of mould risk
- Detection of structural defects and construction quality
- Building / energy surveys
- Preventative industrial maintenance

NEW FOR 2020

testo 872 now with free testo 605i

testo 872 thermal imager building inspection kit

Thermal imager testo 872 with wireless module BT/wireless LAN, testo 605i Smart Probe thermohygrometer, USB cable, mains unit, Lithium ion rechargeable battery, pro software, 3 x ε-markers, quick-start guide, short instructions, calibration certificate and case
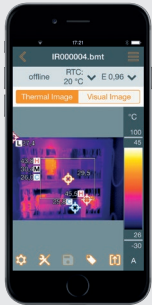
Order no. 0560 8724

£1,990.00

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

testo Thermography App
With the testo Thermography App, your smartphone/tablet becomes a second display, and a remote control for your thermal imager. In addition to this, you can use the App to create and send compact reports on site, and to save them online. Download for Android or iOS now free of charge.

GET IT ON Google Play

Download on the App Store

Compatible measuring instrument

testo 770-3 clamp meter

- Auto AC/DC and large two-line display
- Transmission of measurement values to the testo 871 thermal imager via Bluetooth
- Additional output, current and voltage values enable better interpretation of measured temperatures
- Includes battery and measuring cables

	Order no.	Price
	0590 7703	£149.00

Technical data

Infrared image output	
Infrared resolution	320 x 240 pixels
Thermal sensitivity (NETD)	60 mK
Field of view/min. focusing distance	42° x 30° / < 0.5 m
Geometric resolution (IFOV)	2.3 mrad
testo SuperResolution (pixels/IFOV)	640 x 480 pixels 1.3 mrad
Image refresh rate	9 Hz
Focus	Fixed focus
Spectral range	7.5 to14 µm
Visual image output	
Image size / min. focusing distance	at least 3.1 MP / 0.5 m
Image presentation	
Image display	8.9 cm (3.5") TFT, QVGA (320 x 240 pixels)
Digital zoom	2x, 4x
Display options	IR image / real image
Colour palettes	iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT
Data interfaces	
WLAN Connectivity	Communication with the testo Thermography App
Bluetooth[1]	Measurement value transfer from thermohygrometer testo 605i, clamp meter testo 770-3 (optional)
USB 2.0 Micro B	included
Measurement	
Measuring ranges	Measuring range 1: -30 to +100 °C Measuring range 2: 0 to +650 °C
Accuracy	±2 °C, ±2 % of measured value
Emissivity / reflected temperature compensation	0.01 to 1 / manual
testo ε-Assist	Automatic recognition of emissivity and determination of reflected temperature (RTC)
Measurement functions	
Analysis functions	Mean point measurement, hot/cold-spot recognition, Delta T, area measurement (min-max on area)
testo ScaleAssist	included
IFOV warner	included
Humidity mode – manual	included
Humidity measurement with humidity measuring instrument[1]	Automatic measurement value transfer of thermohygrometer testo 605i via Bluetooth (instrument included)
Solar mode – manual	Input of solar radiation value
Electrical mode – manual	Input of current, voltage or power
Electrical measurement with clamp meter[1]	Automatic measurement value transfer of clamp meter testo 770-3 via Bluetooth (instrument must be ordered separately)

Imager equipment	
Digital camera	included
Lens	42° x 30°
Laser[2]	Laser class 2
Video streaming	via USB, via wireless LAN with testo Thermography App
Storage as JPG	included
Fullscreen mode	included
Image storage	
File format	.bmt and .jpg; export options in .bmp, .jpg, .png, .csv, .xls
Memory	Internal memory (2.8 GB)
Power supply	
Battery type	Li-ion battery can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	included
Ambient conditions	
Operating temperature	-15 to +50 °C
Storage temperature	-30 to +60 °C
Air humidity	20 to 80 %RH, not condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G
Physical features	
Weight	510 g
Dimensions (LxWxH)	219 x 96 x 95 mm
Housing	PC - ABS
PC software	
System requirements	Windows 10, Windows 8, Windows 7
Standards, tests, warranty	
EU directive	EMC: 2014/30/EU RED: 2014/53/EU
Warranty	2 years

[1] Wireless permit in EU, EFTA, USA, Canada, Australia, Turkey
[2] excepting USA, China and Japan

Accessories	Order no.	
Spare battery, additional Lithium ion rechargeable battery for extending the operating time.	0515 5107	£21.49
Battery charger, desktop charging station for optimising the charge time.	0554 1103	£34.90
Pack of 10 x testo ε-markers for use with ε-Assist function (868/871/872 only	0554 0872	£21.90
Holster case	0554 7808	£41.90

testo 875-1i and 875-2i thermal imaging cameras

With the testo 875i thermal imager range you can carry out professional non-contact testing on many applications. This allows you to reveal problems within buildings, industrial maintenance and production monitoring before a malfunction occurs or fire risks develop. For good measure, you can create a real image in parallel to the thermal image thanks to the built-in digital camera. This makes documentation and assignment easier for you. With the excellent thermal sensitivity of <50 mK, you can track down even small temperature differences.

The testo 875-2i adds to the already comprehensive features of the 875-1i by adding the option for interchangeable lenses, headset to allow voice annotation with images and also introduces surface humidity risk analysis function to help buildings engineers determine if rooms are at risk from build-up of condensation and mould.

160 x 120 pixel resolution (with testo SuperResolution 320 x 240 pixels)

Laser marker

50 mK thermal sensitivity

Video streaming via USB to PC

32° x 23° field of view lens

Surface moisture mode (testo 875-2i only)

Optional telephoto lens (supplied in testo 875-2i kit)

Applications

• Electrical thermography

• Buildings thermography

• Preventative industrial maintenance

testo 875-1i

Thermal imager testo 875-1i with integrated testo SuperResolution and digital camera, in a robust case, including professional software, soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery and tripod adapter

Part no. 0563 0875 V1

£1,790.00

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

testo 875-2i

Thermal imager testo 875-2i with integrated testo SuperResolution and digital camera, in a robust case including professional software, soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery, tripod adapter and headset

Part no. 0563 0875 V2

£2,490.00

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

testo 875-2i set

Thermal imager testo 875-2i set with integrated testo SuperResolution and digital camera, in a robust case, including professional software, soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery, tripod adapter, headset, 9° x 7° telephoto lens, lens protector, spare rechargeable battery and fast battery charger

Part no. 0563 0875 V3

£3,250.00

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

Technical data

	testo 875-1i	testo 875-2i
Infrared image output		
Infrared resolution	160 x 120 pixels	
Thermal sensitivity (NETD)	< 50 mK at +30 °C	
Field of view/min. focus distance	32° x 23° / 0.1 m (Standard lens)	32° x 23° / 0.1 m (Tele: 9° x 7° / 0.5 m)
Geometric resolution (IFOV)	3.3 mrad (Standard lens)	3.3 mrad (Tele: 1.0 mrad)
SuperResolution (pixel / IFOV)	320 x 240 pixels / 2.1 mrad (Standard lens)	320 x 240 pixels / 2.1 mrad (Tele: 0.6 mrad)
Image refresh rate	33 Hz*	
Focus	manual	
Spectral range	7.5 to 14 µm	
Image output visual		
Image size / min. focus distance	640 x 480 pixels / 0.4 m	
Image presentation		
Image display	3.5" LCD with 320 x 240 pixels	
Display options	IR image only / real image only/ IR and real image	
Video output	USB 2.0	
Colour palettes	10 (iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT)	
Measurement		
Measuring range	-30 to +100°C / 0 to +350 °C (switchable)	
Accuracy	±2 °C, ±2 % of m.v. (±3 °C of m.v. at -30 to -22 °C)	
High temperature measurement – optional	–	+350 to +550 °C
Accuracy		±3 % of m.v. at +350 to +550 °C
Emissivity / reflected temperature	0.01 to 1 / manual	
Measuring functions		
Display of surface moisture distribution (using manual input)	–	✓
Humidity measurement with radio humidity probe (automatic measurement value transfer in real time)**	–	(✓)
Solar mode	✓	
Analysis function	up to 2 measurement points, Hot/Cold Spot Recognition	up to 2 measurement points, Hot/Cold Spot Recognition, Isotherms, Area measurement (Min-/Max on Area)

	testo 875-1i	testo 875-2i
Imager equipment		
Digital camera	✓	
Power LEDs	–	✓
Standard lens	32° x 23°	
Exchangeable lenses - optional	–	9° x 7°
Laser (laser classification 635 nm, Class 2)***	✓	
Voice recording	–	wired headset
Video streaming (via USB)	✓	
Image storage		
File format	.bmt; export option in .bmp, .jpg, .png, .csv, .xls	
Storage device	SD card 2GB (approx. 2.000 images)	
Power supply		
Battery type	Fast-charging, Li-ion battery can be changed on-site	
Operating time	4 hours	
Charging options	In instrument/in charging station (optional)	
Mains operation	yes	
Ambient conditions		
Operating temperature range	-15 to +40 °C	
Storage temperature range	-30 to +60 °C	
Air humidity	20 to 80 % RH non-condensing	
Housing protection class (IEC 60529)	IP54	
Vibration (IEC 60068-2-6)	2G	
Physical specifications		
Weight	Approx. 900 g	
Dimensions (L x W x H) in mm	152 x 108 x 262	
Tripod mounting	M6	
Housing	ABS	
PC software		
System requirements	Windows XP (Service Pack 3), Windows Vista, Windows 7 (Service Pack 1), Windows 8, interface USB 2.0	
Standards, tests		
EU Directive	2004 / 108 / EC	

*   inside the EU, outside 9 Hz
**   Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia
*** excepting USA, China and Japan

✓   included in delivery
(✓) optional
–   not available

testo 882 thermal imaging camera

Crisp, clear thermal images taken from a wide angle; parallel digital real images of the same measuring object with manual or motor-driven focusing. The Testo 882 thermal imaging camera gives you this and much, much more. In fact, it gives you everything you need to take, document and analyse the thermal images of the object you have measured.

Quality control in the building sector and water damage restoration, maintenance of mechanical and electrical installations, precise high-temperature measurements, prevention of mold, energy advice. The Testo 882 infrared camera has all the features you need to carry out a wide range of different thermal imaging tasks.

320 x 240 pixel resolution (with testo SuperResolution 640 x 480 pixels)

Laser marker

50 mK thermal sensitivity

Video streaming via USB to PC

32° x 23° field of view lens

Surface moisture mode

Motorised / manual focus

Applications

• Electrical thermography

• Buildings thermography

• Preventative industrial maintenance

testo 882

Thermal imager testo 882 with integrated testo SuperResolution, in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, mains unit, Li ion rechargeable battery, tripod adapter, lens cleaning cloth, headset

SUPER RESOLUTION 4X MORE MEASUREMENT VALUES

Part no. 0560 0882

£2,990.00

Technical data

Infrared image output	
Infrared resolution	320 x 240 pixels
Thermal sensitivity (NETD)	< 50 mK at +30 °C
Field of view/min. focus distance	32° x 23° / 0.2 m
Geometric resolution (IFOV)	1.7 mrad
SuperResolution (pixel / IFOV)	640 x 480 pixels / 1.1 mrad
Image refresh rate	33 Hz*
Focus	manual and motor focus
Spectral range	7.5 to 14 μm
Image output visual	
Image size / min. focus distance	640 x 480 pixels / 0.4 m
Image presentation	
Image display	3.5" LCD with 320 x 240 pixels
Display options	IR image only / real image only/ IR and real image
Video output	USB 2.0
Colour palettes	10 (iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT)
Measurement	
Temperature range	-30 to +100°C / 0 to +350 °C (switchable)
High temperature measurement - optional	+350 to +550 °C
Accuracy	±2 °C, ±2 % of m.v. / (±3% of m.v. at +350 to +550 °C)
Emissivity / reflected temperature	0.01 to 1 / manual
Measuring functions	
Display of surface moisture distribution (using manual input)	✓
Humidity measurement with radio humidity probe (automatic measurement value transfer in real time)**	(✓)
Solar mode	✓
Analysis function	up to 2 measurement points, Hot/Cold Spot Recognition, Isotherms, Area measurement (Min-/Max on Area)

Imager equipment	
Digital camera	✓
Power LEDs	✓
Motor focus	✓
Standard lens	32° x 23°
Laser (laser classification 635 nm, Class 2)***	✓
Voice recording	wired headset
Video streaming (via USB)	✓
Image storage	
File format	.bmt; export option in .bmp, .jpg, .png, .csv, .xls
Storage device	SD card 2 GB (approx. 1.000 images)
Power supply	
Battery type	Fast-charging, Li-ion battery can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	yes
Ambient conditions	
Operating temperature range	-15 to +40 °C
Storage temperature range	-30 to +60 °C
Air humidity	20 to 80 % RH non-condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G
Physical specifications	
Weight	Approx. 900 g
Dimensions (L x W x H) in mm	152 x 108 x 262
Tripod mounting	M6
Housing	ABS
PC software	
System requirements	Windows XP (Service Pack 3), Windows Vista, Windows 7 (Service Pack 1), Windows 8, interface USB 2.0
Standards, tests	
EU Directive	2004 / 108 / EC

✓ included in delivery
(✓) optional

* inside the EU, outside 9 Hz
** Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia
*** excepting USA, China and Japan

Be sure. testo

www.testo.co.uk