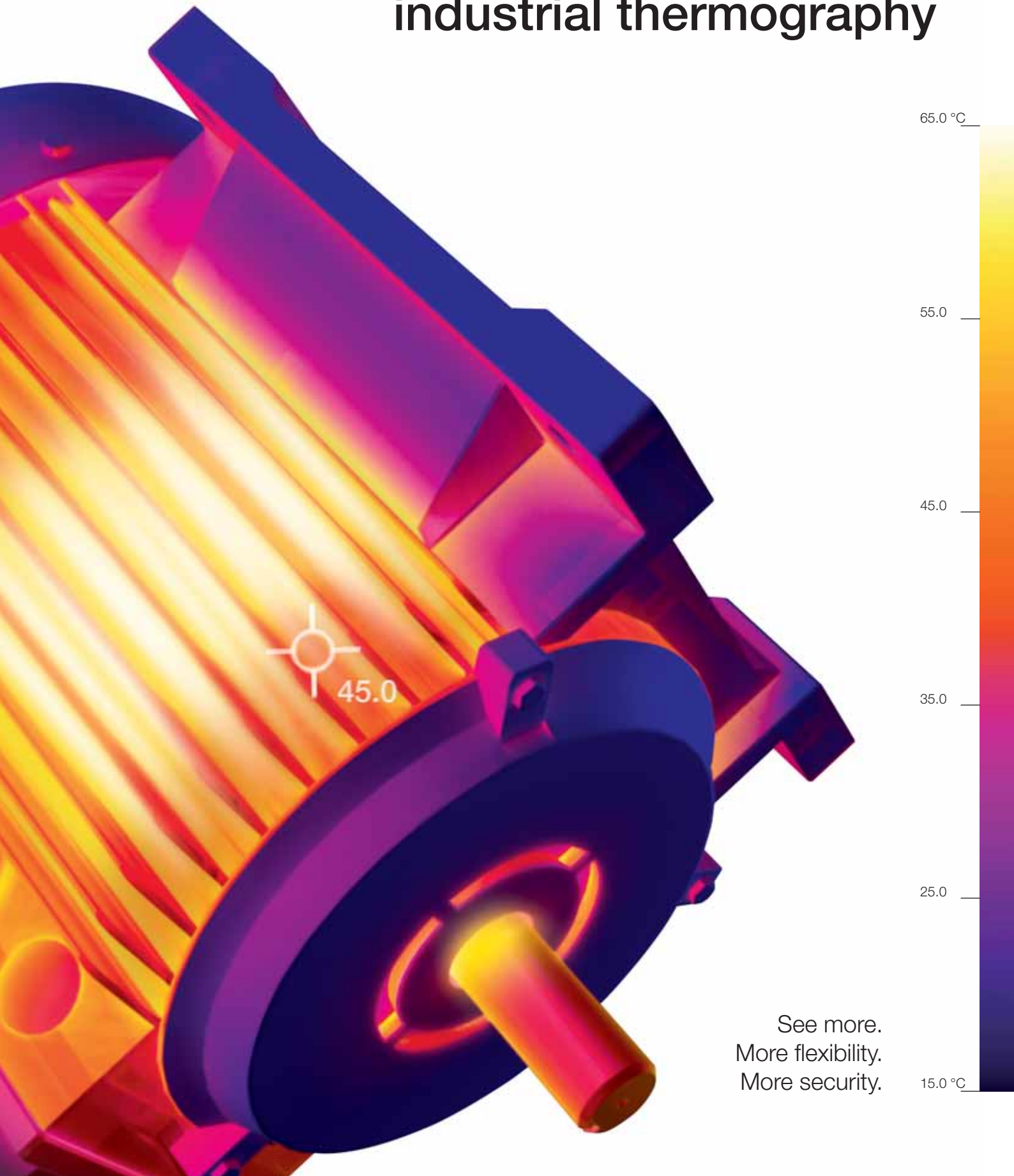




Committing to the future

Thermal imagers for industrial thermography



45.0

65.0 °C

55.0

45.0

35.0

25.0

15.0 °C

See more.
More flexibility.
More security.

See more – more flexibility – more security...

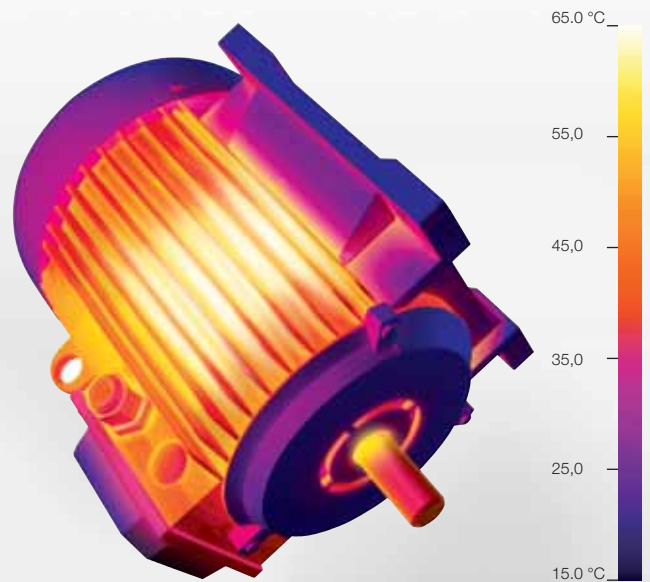
Testo thermal imagers for day-to-day applications in industry. Provide security and prevent damage!

Testo thermal imagers detect anomalies and weak spots in industrial maintenance and production monitoring quickly and reliably. Materials and components are tested completely damage-free. Problem zones are identified before a malfunction or a fire risk occurs. Whereas with other methods, cable or pipeline systems must be dismantled, with a Testo thermal imager, a single glance is enough.

Thanks to sharp focus images and the 32° lens, no detail is ever missed. In addition to the intuitive menu, this also guarantees fast and comprehensive analysis of the image data.

Even the smallest temperature differences can be identified with the high temperature resolution of the Testo thermal imagers. With the additional built-in digital camera, a real image is stored in addition to the IR image. This considerably eases documentation.

Industrial thermography with Testo thermal imagers saves time, energy and money, and in particular ensures more security allround.



Testo thermal imagers for industrial thermography:

- Prevent damage and save money
- Stand out thanks to with high resolution images
- Ensure fast and comprehensive analysis
- Have an intuitive menu structure
- Guarantee a large image section thanks to the 32° lens



Exchangeable lenses



Intuitive menu



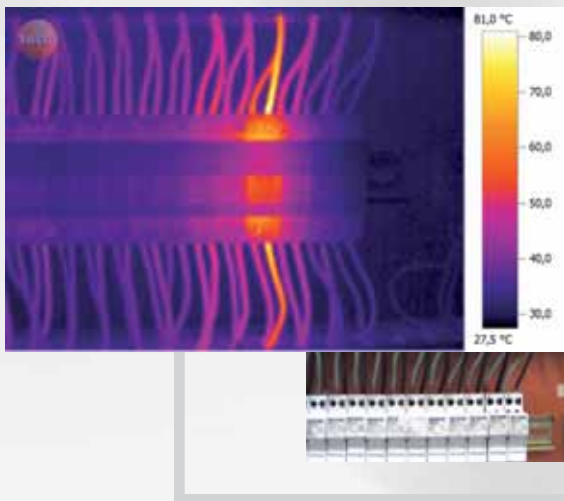
Rotatable display

Testo thermal imagers in thermal thermography

Thermography has proven its worth as a tool for preventive maintenance, in order to monitor mechanical and electrical systems or production processes. In the field of research and development, thermal imagers are also used to examine heat distribution on circuit boards.

For your regular checks in electrical maintenance

Infrared thermography allows an evaluation of the heat status of low, medium and high voltage systems. Thermographic images lead to early recognition of defective components, so that the required targeted preventive steps can be taken. This minimizes the dangerous risk of fire and avoids costly production downtimes.



Min-/Max on Area

For your support in preventive mechanical maintenance

A reliable early recognition of threatening damage to process-relevant system components is necessary in order to guarantee the security and reliability of the machines. A high level of heat emissions, especially from mechanical components, may indicate an elevated level of stress. This is caused, for example, by friction due to faulty adjustment, component tolerances or a lack of lubricant. With their high temperature resolution of, the testo thermal imagers provide an exact diagnosis. Critical heat stati can be identified directly in the instrument using the isotherm function, and preventive measures taken.



Isotherm function



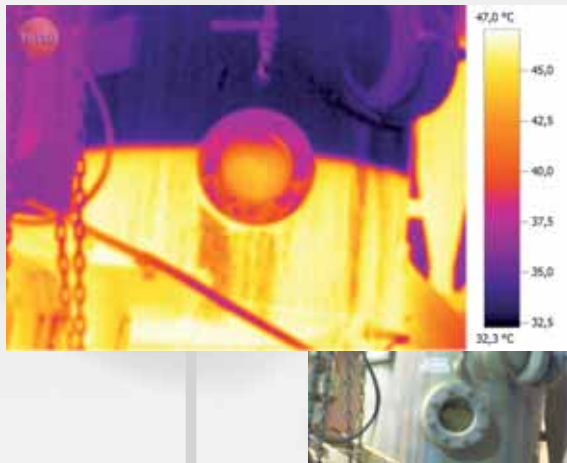
Thermal imager testo 875



Thermal imager testo 881

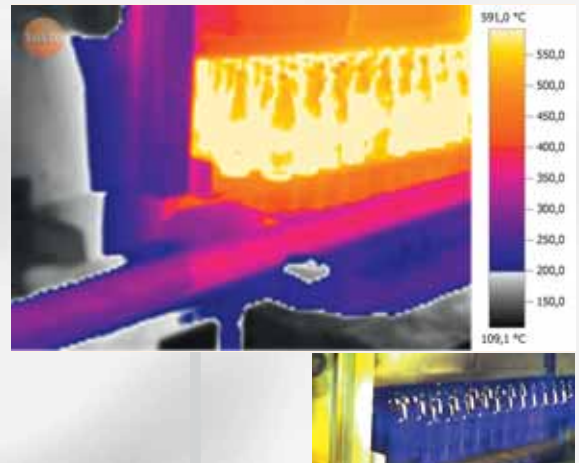
For your fast and easy monitoring of filling levels

Level control in sealed fluid tanks has proved to be a useful method for avoiding machine damage and therefore production losses. If, for example, the fluid in coolant tanks falls to a dangerously low level, machines are no longer cooled correctly. They run hot and may fail. Often, an automatic level control regulates the level of the refrigerant and issues an alarm when the filling level is too low. However, the automatic control can also fail. In this case, a regular look through a thermal imager will also help.



For your reliable high temperature measurement

Do you have high temperatures to deal with? No problem – because the testo 881 and testo 882 are adaptable to your applications. Using the high temperature option, you can flexibly extend the measuring range up to 550 °C, and can thus deal with any measurement task. The special high temperature colour palette iron HT presents high and low temperatures in stark contrast.



High image quality

Motor focus

Exchangeable lenses



Secure work with one-hand operation



Thermal imager testo 882

More reliability in quality assurance and production monitoring

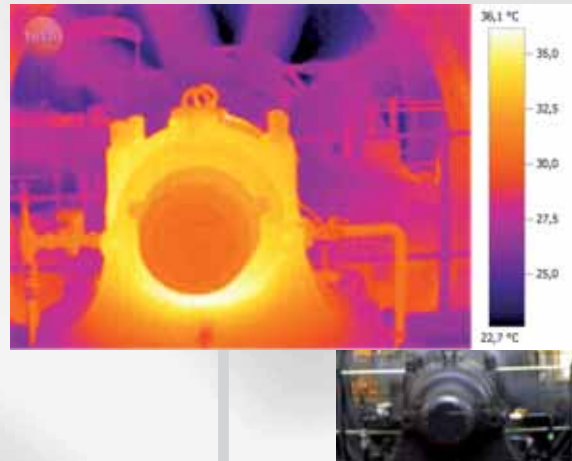
The thermal imagers from Testo ensure precise situation analysis, thus supporting process monitoring and product quality assurance.

In addition to foreign bodies in production processes, anomalies in the heat distribution of components are also recognized at a glance, quickly and without contact.



Power production guarantee

Energy is an important commodity which must always be available in sufficient quantity. For this reason, power stations and utility companies ensure that no interruptions occur, from energy production to distribution. Testo thermal imagers support the preventive maintenance in of electrical and mechanical components. Developing damage is identified early.



Digital camera

Hot/Cold Spot Recognition

Minimum focusing distance

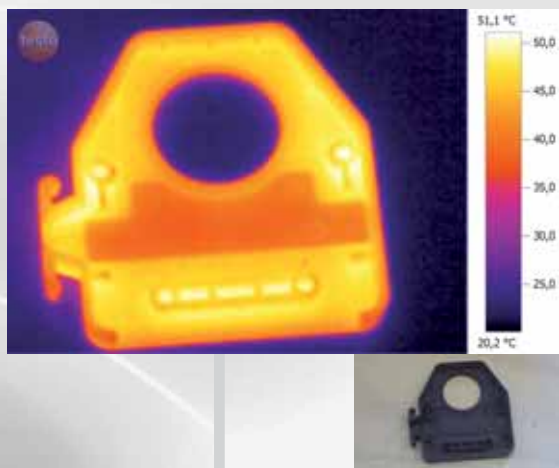


Targeted analysis of overheating in circuit boards.

In the field of research and development, thermal imagers are also used to for the targeted analysis of heat distribution, e. g. on circuit boards. The components are examined quickly and without contact. The special advantage of the Testo thermal imagers is the combination of the standard lens with 32° and a low minimum focusing distance. This allows small details to be identified in a large image section.

Quality control in the production of diecast plastic components

In the development and production of diecast plastic components, the Testo thermal imagers are used for the targeted monitoring of the cooling process. If the diecast components cool very irregularly, differing material densities occur within the diecast components – leading to reduced stability and bad fitting. The cooling process can be monitored and documented using a Testo thermal imager. This allows problematic areas to already be recognized during development, and directly remedied.

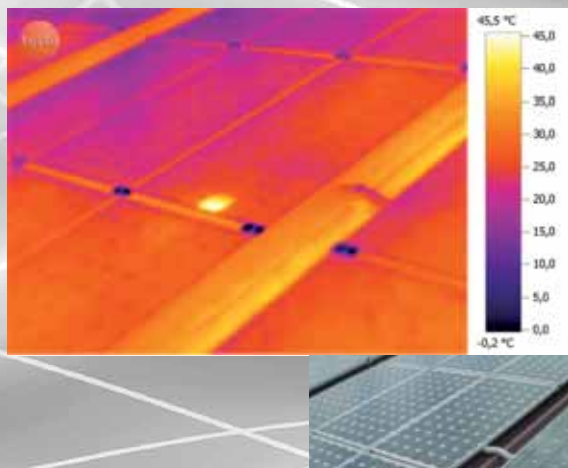


Industrial thermography with testo 876



Thermal imager testo 876

Voice recording



Monitoring and checking solar energy systems

There are two main reasons for examining solar energy systems: Safety and performance monitoring.

Solar energy systems reach top performance in full sunshine. Defective cells can lead to an enormous heat development, and thus to the danger of fire. Moreover, defective cells can cause considerable loss of system performance. With Testo thermal imagers, potential fire sources and damaged cells can be recognized early. A loss of performance is thus avoided and a high level of security of the system is guaranteed.

... with the thermal imagers from Testo

testo 875 – the thermal imager for daily use

The thermal imager testo 875 is the reliable, solid tool for your daily use. With a temperature resolution of < 80 mK, exchangeable lenses and an integrated digital camera, you discover weak spots in buildings quickly and securely with the thermal imager testo 875. You localize leakage precisely, and detect defective insulation directly.

For you, that means: You see more and have more reliability when thermographing!



testo 875

...more on page 10

testo 876 – the thermal imager in flexible camcorder design

The thermal imager testo 876 stands out thanks to its large rotatable display. This allows you to keep the display in view when thermographing in any position, securely reaching every corner. Thanks to exchangeable lenses, you can guarantee that you always have the right image section in your display.

For you, that means: You see more and have more flexibility when thermographing!



testo 876

...more on page 14

testo 881 – the thermal imager with the best NETD < 50 mK

The thermal imager testo 881 with the best thermal sensitivity of < 50 mK provides highest image quality. This allows you to measure even the smallest temperature differences, and obtain high resolution IR images at any time. A wide-angle and a telephoto lens allow adaptation to the different sizes and distances of measurement objects.

For you, that means: You see more and discover even more when thermographing!



testo 881

...more on page 18

testo 882 – the thermal imager with 320 x 240 pixels

The thermal imager testo 882 in ergonomic pistol design, with 320 x 240 pixels, stands out thanks to even more precise infrared images. With 76,800 temperature measuring points, it sees every detail on the measured object. This makes it even easier for you to detect anomalies and weaknesses from greater distances.

For you, that means: You see more and have more security when thermographing!



testo 882

...more on page 22

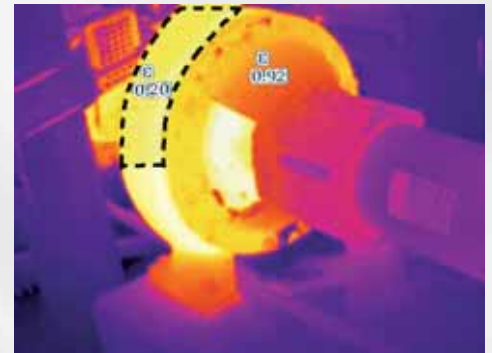
The PC software IRSoft from Testo for comprehensive analysis and professional thermography reports

IRSoft – the high-performance PC software for professional thermography analysis from Testo. The IRSoft allows comprehensive analysis of thermal images on a PC. It stands out thanks to its clear structure and high user-friendliness. All analysis functions are explained using easily comprehensible symbols. So-called 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

Infrared images can be conveniently processed and analyzed on a PC using the IRSoft. Extensive analysis functions are available for professional image processing. For example, the different emissivities of the various materials for image areas can be corrected afterwards, right up to individual pixels. The histogram function shows the temperature distribution of an image area. A profile line is used to analyze temperature curves.

In order to visualize critical temperatures in an image, limit value violations as well as pixels in specific temperature range can be emphasized. In addition to this, unlimited measurement points can be set, hot/cold spots determined, and comments on the analysis made.

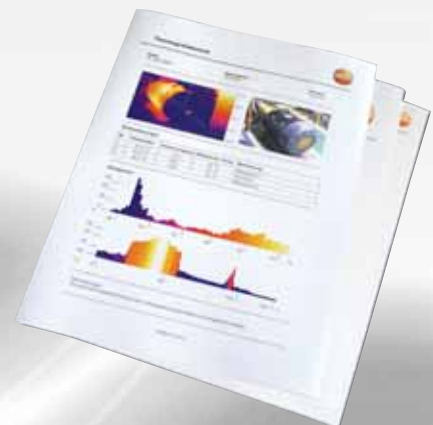


Change of emissivity by area for exact temperature analysis.

Easy creation of professional thermography reports

Infrared and real images are displayed in the screen already during analysis, and automatically taken over into the report. This makes easy and professional documentation of the measurement results possible.

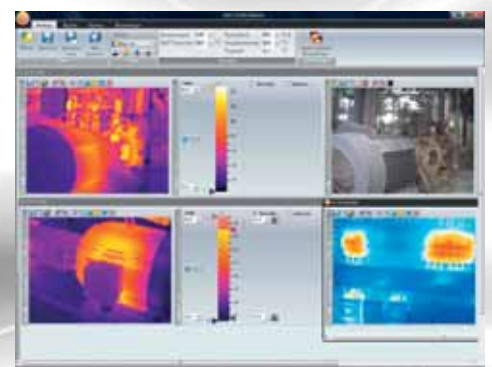
The report assistant guides step by step to a complete and clear report. Different templates are available not only for short and quick reports, but also for more comprehensive documentation. The templates contain all relevant information on measurement site, measurement task and examination results. In addition to this, the report designer can be used to create user-defined templates for individual reports.



Multi-page reports for complete documentation

IRSoft – all important information at a glance

Several infrared images can be opened and analyzed parallel to each other. All analyses in the images are visible at a glance and comparable to each other. Alterations to settings can be carried out either for the whole infrared image or for individual image sections. It is additionally possible to transfer current image corrections to all opened infrared images with a mouse click.



Simultaneous evaluation and comparison of several images

PC software IRSoft – including the analysis function for image overlay: Testo TwinPix

The thermal imagers from Testo with integrated digital camera automatically store an infrared and a real image simultaneously. With the professional image overlay Testo TwinPix, these two images can be superimposed over each other in the PC software IRSoft. The information from the thermal image and the real image are then displayed together in one image.



Straight to the perfect result with Testo TwinPix...

By setting marking points which correspond in the infrared 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.



See temperature violations even in the real image, with TwinPix

Show the customer what's important, with the professional image overlay from Testo...

During the analysis, the image overlay helps orientation in the image and in the exact localization of the damaged area.

Setting the transparency level regulates 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 emphasized, and the temperature status of the measurement object displayed plastically. The overlaid image is taken over into the report for documentation purposes.



Function of the PC software: Image overlay TwinPix

testo 875 – the thermal imager for daily use

The thermal imager testo 875 is the reliable, solid tool for your daily use. With a temperature resolution of < 80 mK, exchangeable lenses and an integrated digital camera, you discover weak spots in buildings quickly and securely with the thermal imager testo 875. You localize leakage precisely, and detect defective insulation directly.

For you, that means: You see more and have more reliability when thermographing!



The 5 most important advantages of the **testo 875**

1. High image quality due to NETD < 80 mK

Thanks to a temperature resolution of < 80 mK, even the smallest temperature differences are visible with the testo 875.



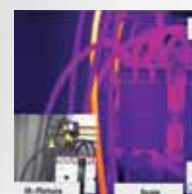
2. Exchangeable lenses

A wide-angle and a telephoto lens allow you the adaptation to the very different sizes and distances of measurement objects.



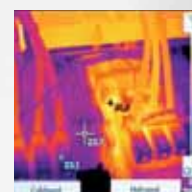
3. Integrated digital camera

With the testo 875, you can store a real image of every measurement site parallel to the infrared image.



4. Automatic Hot/Cold Spot Recognition

Critical temperature stati are directly displayed using the automatic Hot-Cold-Spot recognition



5. Lens protection glass

The germanium lens protection glass protects the optics from dirt and scratching.



Technical data of the thermal imager **testo 875**

Product data	testo 875-1	testo 875-2
Image output		
Infrared		
Detector type	FPA 160 x 120 pixels, a.Si	
Thermal sensitivity (NETD)	< 80 mK at 30 °C	
Field of view / min. focusing distance	32° x 23° / 0.1 m (standard lens)	32° x 23° / 0.1 m (standard lens) 9° x 7° / 0.5 m (telephoto lens)
Geometric resolution (IFOV)	3.3 mrad (standard lens)	3.3 mrad (standard lens) 1.0 mrad (telephoto lens)
Image refresh rate	9 Hz	
Focus	manual	
Spectral range	8 to 14 µm	
Visual		
Image size / min. focusing 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	IR image only / real image only / IR and real image
Video output	USB 2.0	
Colour palettes	4 options: iron, rainbow, blue-red, shades of grey	
Measurement		
Temperature range	-20 °C to 100 °C / 0 °to +280 °C (switchable)	
Accuracy	±2 °C, ±2% of m. v.. (-20 °C to +280 °C)	
Emissivity / reflected temperature compensation	0.01 to 1 / manual	
Imager equipment		
Digital camera	-	✓
Standard lens (32° x 23°)	✓	✓
Telephoto lens (9° x 7°)	-	optional
Display of surface moisture distribution	-	yes using manual input
Measuring functions		
Measurement	centre point	standard measurement (1-point)
Hot/Cold Spot Recognition	✓	✓
Image storage		
File format	.bmt; export options 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	approx. 4 hours	
Charging options	in instrument or optionally in charger, with car adapter	
Mains operation	Yes	
Ambient conditions		
Operating temperature range	-15 °C to 40 °C	
Storage temperature range	-30 °C to 60 °C	
Air humidity	20% to 80% non-condensing	
Housing protection class	IP 54	
Vibration (IEC 68-2-6)	2G	
Physical features		
Weight	approx. 900 g	
Dimensions (L x W x H) in mm	152 x 108 x 262	
Tripod mounting	yes, with adapter	
Housing	ABS	
PC software		
System requirements	Windows XP (Service Pack 2), Windows Vista, Windows 7, USB 2.0 interface	
Standards, tests, warranty		
EU Directive	2004 / 108 / EC	
Warranty	2 years	

Ordering data **testo 875**

	testo 875-1	testo 875-2
Order no.	0560 8751	0560 8752
Detector	160 x 120 pixels	
Thermal sensitivity (NETD)	< 80 mK	
Temperature range	-20 °C to +280 °C	
Image refresh rate	9 Hz	
Standard lens 32° x 23°	✓	
Exchangeable telephoto lens 9° x 7°	-	(✓)
Integrated digital camera	-	✓
Display of surface moisture (via manual input)	-	✓
Auto Hot/Cold Spot Recognition	✓	

(✓) Optional ✓ Standard

The imager is delivered in a robust case incl. pro software, SD card, USB cable, mains unit, Li ion rechargeable battery and tripod adapter.

Set testo 875-2

In addition to the equipment of the testo 875-2, the set also includes:

- Telephoto lens 9° x 7°
- Lens protection glass
- Additional battery
- Fast battery charger
- Sun Shield

Part no.: 0563 8752

Save now, with the
testo 875-2 in a set



Accessories **testo 875**

	Order no.
Fast battery charger Desktop charging station for two rechargeable batteries for the optimization of the charging time	0554 8801
Additional battery Additional Lithium ion rechargeable battery for extending the operating time	0554 8802
Lens protection glass Special Germanium protective glass for optimum protection of the lens from dust and scratching	0554 8805
Retrofit telephoto lens (testo 875-2 only). Please contact our customer service	-
Sun Shield Special sun shield for the display of the thermal imager in bright surroundings	0554 8806
Soft case Practical carrying option for the thermal imager incl. carrying strap	0554 8814
Aluminium tripod Professional, extremely light and stable aluminium tripod with Quick-Release legs and 3-way tripod head	0554 8804
Emissivity adhesive tape Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon=0.95$, temperature-resistant to +250 °C	0554 0051
Car charging adapter Practical charging option for the thermal imager when travelling by car – can be used anywhere	0554 8817
ISO calibration certificates Calibration points at 0 °C, 25 °C, 50 °C	0520 0489
Calibration points at 0 °C, 100 °C, 200 °C	0520 0490
Freely selectable calibration points in the range -18 °C to 250 °C	0520 0495

testo 876 – the thermal imager in flexible camcorder design

The thermal imager testo 876 stands out thanks to its large rotatable display. This allows you to keep the display in view when thermographing in any position, securely reaching every corner. Thanks to exchangeable lenses, you can guarantee that you always have the right image section in your display.

For you, that means: You see more and have more flexibility when thermographing!



The 7 most important advantages of the **testo 876**

1. Fold-out, rotatable display

Thanks to the fold-out, rotatable display, you have clear view in any position when thermographing



2. High image quality due to NETD < 80 mK

Thanks to a temperature resolution of < 80 mK, even the smallest temperature differences are visible with the testo 876.



3. Exchangeable lenses

A wide-angle and a telephoto lens allow you the adaptation to the very different sizes and distances of measurement objects.



4. Integrated digital camera

With the testo 876, you can store a real image of every measurement site parallel to the infrared image.



5. Lens protection glass

The germanium lens protection glass protects the optics from dirt and scratching.



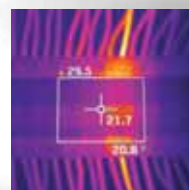
6. Voice recording with the practical headset

With the integrated voice recording, you can comment any infrared image directly during the application. This valuable information is stored together with the thermal image.



7. Min/Max on Area calculation

The minimum and maximum values of an image section can be determined live directly on site and at a glance.



Technical data of the thermal imager



Product data	testo 876
Image output	
Infrared	
Detector type	FPA 160 x 120 pixels, a.Si
Thermal sensitivity (NETD)	< 80 mK at 30 °C
Field of view / min. focusing distance	32° x 23° / 0.1 m (standard lens) 9° x 7° / 0.5 m (telephoto lens)
Geometric resolution (IFOV)	3.3 mrad (standard lens), 1.0 mrad (telephoto lens)
Image refresh rate	9 Hz
Focus	manual and motor focus
Spectral range	8 to 14 µm
Visual	
Image size / min. focusing distance	640 x 480 pixels / 0.4 m
Image presentation	
Image display	3.5" Fold-out 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	4 options: iron, rainbow, blue-red, shades of grey
Measurement	-20 °C to 100 °C / 0 °to +280 °C (switchable)
Temperature range	±2 °C, ±2% of m. v.. (-20 °C to +280 °C)
Accuracy	
Emissivity / reflected temperature compensation	0.01 to 1 / manual
Imager equipment	
Digital camera	✓
Motor focus	✓
Standard lens (32° x 23°)	✓
Telephoto lens (9° x 7°)	optional
Voice recording	✓
Display of surface moisture distribution	yes using manual input
Measuring functions	
Measurement	standard measurement (1-point)
Hot/Cold Spot Recognition	✓
Isotherms	✓
Min-/Max on Area	✓
Image storage	
File format	.bmt; export options 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	approx. 4 hours
Charging options	in instrument or optionally in charger, with car adapter
Mains operation	yes
Ambient conditions	
Operating temperature range	-15 °C to 40 °C
Storage temperature range	-30 °C to 60 °C
Air humidity	20% to 80% non-condensing
Housing protection class	IP 54
Vibration (IEC 68-2-6)	2G
Physical features	
Weight	approx. 900 g
Dimensions (L x W x H) in mm	approx. 210 x 85 x 97
Tripod mounting	yes
Housing	ABS
PC software	
System requirements	Windows XP (Service Pack 2), Windows Vista, Windows 7, interface USB 2.0
Standards, tests, warranty	
EU Directive	2004 / 108 / EC
Warranty	2 years

Ordering data **testo 876**

Order no.	0560 8761
Detector	160 x 120 pixels
Thermal sensitivity (NETD)	< 80 mK
Temperature range	-20 °C to +280 °C
Image refresh rate	9 Hz
Standard lens 32° x 23°	✓
Exchangeable telephoto lens 9° x 7°	(✓)
Integrated digital camera	✓
Voice recording using headset	✓
Motor focus	✓
Display of surface moisture (via manual input)	✓
Isotherm display in instrument	✓
Min/Max on Area calculation	✓
Auto Hot/Cold Spot Recognition	✓

(✓) Optional ✓ Standard

The imager is delivered in a robust case incl. pro software, carrying strap, SD card, USB cable, mains unit, and Li ion rechargeable battery.

testo 876 set

In addition to the equipment of the testo 876, the set also includes:

- Telephoto lens 9° x 7°
- Lens protection glass
- Additional battery
- Charger

Part no.: 0560 8762

Your savings with the
testo 876 in a set



Accessories **testo 876**

	Order no.
Fast battery charger Desktop charging station for two rechargeable batteries for the optimization of the charging time	0554 8851
Additional battery Additional Lithium ion rechargeable battery for extending the operating time	0554 8852
Lens protection glass Special Germanium protective glass for optimum protection of the lens from dust and scratching	0554 8805
Retrofit telephoto lens Please contact our customer service	-
Aluminium tripod Professional, extremely light and stable aluminium tripod with Quick-Release legs and 3-way tripod head	0554 8804
Emissivity adhesive tape Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon=0.95$, temperature-resistant to +250 °C	0554 0051
Car charging adapter Practical charging option for the thermal imager when travelling by car – can be used anywhere	0554 8817
ISO calibration certificates Calibration points at 0 °C, 25 °C, 50 °C	0520 0489
Calibration points at 0 °C, 100 °C, 200 °C	0520 0490
Freely selectable calibration points in the range -18 °C to 250 °C	0520 0495

testo 881 – the thermal imager with the best NETD < 50 mK

The thermal imager testo 881 with the best thermal sensitivity of < 50 mK provides highest image quality. This allows you to measure even the smallest temperature differences, and obtain high resolution IR images at any time. A wide-angle and a tele-photo lens allow adaptation to the different sizes and distances of measurement objects.

For you, that means: You see more and discover even more when thermographing!



The 7 most important advantages of the **testo 881**

1. Highest image quality due to NETD < 50 mK

With a thermal resolution of < 50 mK, the testo 881 delivers high definition images which emphasize and visualize even the smallest temperature differences.



2. Voice recording with the practical headset

With the integrated voice recording, you can comment any infrared image directly during the application. This valuable information is stored together with the thermal image.



3. Built-in digital camera with power LEDs

In addition to the infrared recording, you store a parallel real image of the measurement site with the testo 881. The power LEDs guarantee you optimum illumination of dark areas when recording real images.



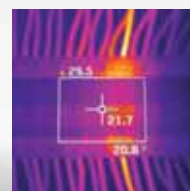
4. Exchangeable lenses

A wide-angle and a telephoto lens allow you the adaptation to the very different sizes and distances of measurement objects.



5. Min/Max on Area calculation

The minimum and maximum values of an image section can be determined live directly on site and at a glance.



6. Linsenschutzglas

Das Linsenschutzglas aus Germanium bewahrt die Optik vor Verschmutzung und Kratzern.



7. Messbereich bis 550 °C optional möglich

Mit der Hochtemperatur-Option erweitern Sie den Messbereich der testo 881 flexibel auf bis zu 550 °C.



Technical data of the thermal imager



Product data	testo 881-1	testo 881-2
Image output		
Infrared		
Detector type	FPA 160 x 120 pixels, a.Si	
Thermal sensitivity (NETD)	< 50 mK at 30 °C	
Field of view / min. focusing distance	32° x 23° / 0.1 m	32° x 23° / 0.1 m (standard lens) 9° x 7° / 0.5 m (telephoto lens)
Geometric resolution (IFOV)	3.3 mrad (standard lens)	3.3 mrad (standard lens) 1.0 mrad (telephoto lens)
Image refresh rate	33 Hz for EU, otherwise 9 Hz	
Focus	manual	manual and motor focus
Spectral range	8 to 14 µm	
Visual		
Image size / min. focusing 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	9 options: iron, rainbow, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT	
Measurement		
Temperature range	-20 °C to 100 °C / 0 °to +350 °C (switchable)	
High temperature measurement (optional)	-	+350 °C to +550 °C
Accuracy	±2 °C, ±2% of m. v. (-20 °C to +350 °C)	
	-	±3% of mv (+350 to +550 °C)
Emissivity / reflected temperature compensation	0.01 to 1 / manual	
Imager equipment		
Digital camera	✓	✓
Power LEDs	-	✓
Motor focus	-	✓
Standard lens (32° x 23°)	✓	✓
Telephoto lens (9° x 7°)	-	optional
Laser measuring spot marking	✓ (Laser classification 635 nm, Cl.2)	✓ (Laser classification 635 nm, Cl.2)
Voice recording	-	✓
Display of surface moisture distribution	-	yes using manual input
Measuring functions		
Measurement	standard measurement (1-point) / two-point measurement	
Hot/Cold Spot Recognition	✓	✓
Isotherms	-	✓
Min-/Max on Area	-	✓
Image storage		
File format	.bmt; export options 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	approx. 4 hours	
Charging options	in instrument or optionally in charger, with car adapter	
Mains operation	Yes	
Ambient conditions		
Operating temperature range	-15 °C to 40 °C	
Storage temperature range	-30 °C to 60 °C	
Air humidity	20% to 80% non-condensing	
Housing protection class	IP 54	
Vibration (IEC 68-2-6)	2G	
Physical features		
Weight	approx. 900 g	
Dimensions (L x W x H) in mm	152 x 108 x 262	
Tripod mounting	yes, with adapter	
Housing	ABS	
PC software		
System requirements	Windows XP (Service Pack 2), Windows Vista, Windows 7, USB 2.0 interface	
Standards, tests, warranty		
EU Directive	2004 / 108 / EC	
Warranty	2 years	

Ordering data **testo 881**

	testo 881-1	testo 881-2
Order no.	0563 0881 V1	0563 0881 V5
Detector	160 x 120 pixels	
Thermal sensitivity (NETD)	< 50 mK	
Temperature range	-20 °C to +350 °C	
Image refresh rate	33 Hz*	
Lens 32° x 23°	✓	
Exchangeable telephoto lens 9° x 7°	-	(✓)
High temperature measurement up to 550°C	-	(✓)
Integrated digital camera	✓	
Integrated power LEDs	-	✓
Voice recording using the headset	-	✓
Laser**	✓	
Motor focus	-	✓
Display of surface moisture (via manual input)	-	✓
Isotherm display in instrument	-	✓
Min-/Max on Area calculation	-	✓
Auto Hot/Cold Spot Recognition	✓	

(✓) Optional ✓ Standard

* within the EU, outside 9 Hz ** excepting USA, China and Japan

The imager is delivered in a robust case incl. pro software, SD card, USB cable, mains unit, and Li ion rechargeable battery.

Order suitable accessories in a case:

	Order no.	t881-1	t881-2	t881-2 set
Exchangeable telephoto lens 9° x 7°	A1		(✓)	✓
Germanium lens protection glass	C1	(✓)	✓	✓
Additional battery	D1	(✓)	(✓)	✓
Fast battery charger	E1	(✓)	(✓)	✓
Soft case	H1	(✓)	(✓)	✓
High temperature measurement up to 550 °C	G1		(✓)	(✓)

Set testo 881-2

In addition to the equipment of the testo 881, the set also includes:

- Telephoto lens 9° x 7°
- Lens protection glass
- Additional battery
- Charger
- Soft case

Part no.: 0563 0881 V6

Save now, with the testo 881-2 in a set:



Accessories **testo 881**

	Order no.
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time	0554 8801
Additional battery. Additional Lithium ion rechargeable battery for extending the operating time	0554 8802
Lens protection glass. Special Germanium protective glass for optimum protection of the lens from dust and scratching	0554 8805
Retrofit telephoto lens (testo 881-2 only). Please contact our customer service	-
Retrofit high temperature measurement (testo 881-2 only). Please contact our customer service	-
Sun Shield. Special sun shield for the display of the thermal imager in bright surroundings	0554 8806

	Order no.
Soft case. Practical carrying option for the thermal imager incl. carrying strap	0554 8814
Aluminium tripod. Professional, extremely light and stable aluminium tripod with Quick-Release legs and 3-way tripod head	0554 8804
Emissivity adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), ε=0.95, temperature-resistant to +250 °C	0554 0051
Car charging adapter. Practical charging option for the thermal imager when travelling by car – can be used anywhere	0554 8817
ISO calibration certificates	
Calibration points at 0 °C, 25 °C, 50 °C	0520 0489
Calibration points at 0 °C, 100 °C, 200 °C	0520 0490
Freely selectable calibration points in the range -18 °C to 250 °C	0520 0495

testo 882 – the thermal imager with 320 x 240 pixels

The thermal imager testo 882 in ergonomic pistol design, with 320 x 240 pixels, stands out thanks to even more precise infra-red images. With 76,800 temperature measuring points, it sees every detail on the measured object. This makes it even easier for you to detect anomalies and weaknesses from greater distances, and you work even more quickly.

For you, that means: You see more and have more security when thermographing!



The 8 most important advantages of the **testo 882**

1. Image sensor with 320 x 240 pixels

With 76,000 temperature measurement points, you detect measurement objects clearly and precisely. This ensures that no damage escapes you, even at greater distances.



2. Large field of view thanks to 32° lens

With the 32° standard lens, you immediately record large image sections, and provide a full overview of the temperature distribution of the measurement object.



3. High image quality due to NETD < 60 mK

Thanks to a temperature resolution of < 60 mK, even the smallest temperature differences are visible with the testo 882.



4. Voice recording with the practical headset

With the integrated voice recording, you can comment any infrared image directly during the application. This valuable information is stored together with the thermal image.



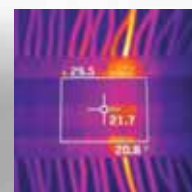
5. Built-in digital camera with power LEDs

In addition to the infrared recording, you store a parallel real image of the measurement site with the testo 882. The power LEDs guarantee you optimum illumination of dark areas when recording real images.



6. Min/Max on Area calculation

The minimum and maximum values of an image section can be determined live directly on site and at a glance.



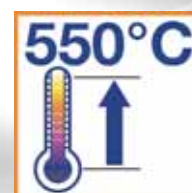
7. Lens protection glass

The germanium lens protection glass protects the optics from dirt and scratching.



8. Messbereich bis 550°C optional möglich

Mit der Hochtemperatur-Option erweitern Sie den Messbereich der testo 882 flexibel auf bis zu 550 °C.



Technical data of the thermal imager



Product data	testo 882
Image output	
Infrared	
Detector type	FPA 320 x 240 pixels, a.Si
Thermal sensitivity (NETD)	< 60 mK at 30 °C
Field of view / min. focusing distance	32° x 23° / 0,2 m
Geometric resolution (IFOV)	1,7 mrad
Image refresh rate	33 Hz for EU, otherwise 9 Hz
Focus	manual and motor focus
Spectral range	8 to 14 µm
Visual	
Image size / min. focusing 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	9 options: iron, rainbow, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT
Measurement	
Temperature range	-20 °C to 100 °C / 0 °to +350 °C (switchable)
High temperature measurement (optional)	+350 °C to +550 °C
Accuracy	±2 °C, ±2% of m.v. (-20 °C to +350 °C) / ±3% of m.v. (+350 °C to +550 °C)
Emissivity / reflected temperature compensation	0.01 to 1 / manual
Imager equipment	
Digital camera	✓
Power LEDs	✓
Motor focus	✓
Standard lens(32°x23°)	✓
Laser measuring spot marking	✓ (laser classification 635 nm, Class 2)
Voice recording	✓
Display of surface moisture distribution	yes using manual input
Measuring functions	
Measurement	Standard measurement (1-point) / Two-point measurement
Hot/Cold Spot Recognition	✓
Isotherms	✓
Min-/Max on Area	✓
Image storage	
File format	.bmt; export options 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	approx. 4 hours
Charging options	in instrument or optionally in charger, with car adapter
Mains operation	Yes
Ambient conditions	
Operating temperature range	-15 °C to 40 °C
Storage temperature range	-30 °C to 60 °C
Air humidity	20% to 80% non-condensing
Housing protection class	IP 54
Vibration (IEC 68-2-6)	2G
Physical features	
Weight	approx. 900 g
Dimensions (L x W x H) in mm	152 x 108 x 262
Tripod mounting	yes, with adapter
Housing	ABS
PC software	
System requirements	Windows XP (Service Pack 2), Windows Vista, Windows 7, interface USB 2.0
Standards, tests, warranty	
EU Directive	2004 / 108 / EC
Warranty	2 years

Ordering data **testo 882**

Order no.	0560 0882
Price	
Detector	320 x 240
Thermal sensitivity (NETD)	< 60 mK
Temperature range	-20 °C to +350 °C
Image refresh rate	33 Hz*
Lens 32° x 23°	✓
High temperature measurement up to 550 °C	(✓)
Integrated digital camera	✓
Integrated power LEDs	✓
Voice recording using headset	✓
Motor focus	✓
Laser**	✓
Display of surface moisture (via manual input)	✓
Isotherm display in instrument	✓
Min/Max on Area calculation	✓
Auto Hot/Cold Spot Recognition	✓

(✓) Optional ✓ Standard

* within the EU, outside 9 Hz ** excepting USA, China and Japan.
The imager is delivered in a robust case incl. pro software, SD card, USB cable, mains unit, and Li ion rechargeable battery.

Order suitable accessories in a case:

	Order no.
Germanium lens protection glass	C1
Additional battery	D1
Fast battery charger	E1
Soft case	H1
High temperature measurement up to 550 °C	G1



Accessories **testo 882**

	Order no.		Order no.
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time	0554 8801	Aluminium tripod. Professional, extremely light and stable aluminium tripod with Quick-Release legs and 3-way tripod head	0554 8804
Additional battery. Additional Lithium ion rechargeable battery for extending the operating time	0554 8802	Emissivity adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon=0.95$, temperature-resistant to +250 °C	0554 0051
Lens protection glass. Special Germanium protective glass for optimum protection of the lens from dust and scratching	0554 8805	Car charging adapter. Practical charging option for the thermal imager when travelling by car – can be used anywhere	0554 8817
Retrofit high temperature measurement Please contact our customer service	–	ISO calibration certificates Calibration points at 0 °C, 25 °C, 50 °C	0520 0489
Sun Shield. Special sun shield for the display of the thermal imager in bright surroundings	0554 8806	Calibration points at 0 °C, 100 °C, 200 °C	0520 0490
Soft case. Practical carrying option for the thermal imager incl. carrying strap	0554 8814	Freely selectable calibration points in the range -18 °C to 250 °C	0520 0495

Feature	testo 875-1	testo 875-2	testo 876	testo 881-1	testo 881-2	testo 882	
Detector size (in pixels)	160 x 120					320 x 240	
Thermal sensitivity (NETD)	< 80 mK		< 50 mK		< 60 mK		
Temperature measuring range	-20 °C to +280 °C		-20 °C to +350 °C				
Image refresh rate	9 Hz		33 Hz*				
Standard lens 32°	✓	✓	✓	✓	✓	✓	
Exchangeable telephoto lens 9°	-	(✓)	(✓)	-	(✓)	-	
Rotatable display	-	-	✓	-	-	-	
High temperature up to 550 °C	-	-	-	-	(✓)	(✓)	
Auto Hot/Cold Spot Recognition	✓	✓	✓	✓	✓	✓	
Min-/Max on Area calculation	-	-	✓	-	✓	✓	
Isotherm function	-	-	✓	-	✓	✓	
Display of surface moisture via manual input	-	✓	✓	-	✓	✓	
Voice recording	-	-	✓	-	✓	✓	
Integrated digital camera	-	✓	✓	✓	✓	✓	
Integrated LEDs	-	-	-	-	✓	✓	
Motor focus	-	-	✓	-	✓	✓	
Laser**	-	-	-	✓	✓	✓	

() Optional Standard

* within the EU, outside 9 Hz ** excepting USA, China and Japan.

Your practical benefit

The detector size indicates the number of temperature measurement points with which the thermal imager is equipped. The more pixels, the more detailed and clearer are the measurement objects presented.

The NETD displays the smallest temperature difference which can be resolved by the imager. A low NETD guarantees the resolution of the smallest temperature differences. The rule of thumb is: the smaller this value is, the better is the measurement resolution.

The temperature range of your thermal imager informs you, up to which temperature your imager is able to record and measure the heat radiation of objects.

The display refresh rate informs as to how frequently the thermal imager is refreshed per second.

The 32° lens records a large image section, creating an ideal overview of the temperature distribution of a measurement object – there is more in the image at a glance.

The exchangeable telephoto lens assists in the measurement of smaller details and visualizes them even at greater distances in your thermal image.

Thanks to the rotatable display, you can thermograph with assurance from any position. Undesired reflections on the display are now avoided.

With the high temperature option, the measuring range can be flexibly extended. Thanks to a high temperature filter, the measurement of temperatures up to 550 °C is possible.

The coldest and the hottest spot of your measurement object are automatically marked in the thermal image in the imager display – critical heat spots are detected at a glance.

The minimum and maximum values of an image section can be determined directly on site and at a glance.

The optical colour alarm localizes critical areas easily and directly in the thermal image. All points whose temperature values are within a pre-defined range, are marked in colour.

Via the manual input of ambient temperature, air humidity and dewpoint, mould risk spots are visualized in the thermal image at a glance.

Localized weak spots can be easily commented using voice recording. You thus document valuable additional information directly on site.

Faster and easier object inspection thanks to the display of infrared and real image. The digital photo is automatically stored in addition to every infrared image.

The power LED's guarantee you optimum illumination of dark areas when recording real images.

The dynamic motor focus allows you to focus the infrared image with one hand.

The perfect support for orientation as to which part of the object is being measured.



