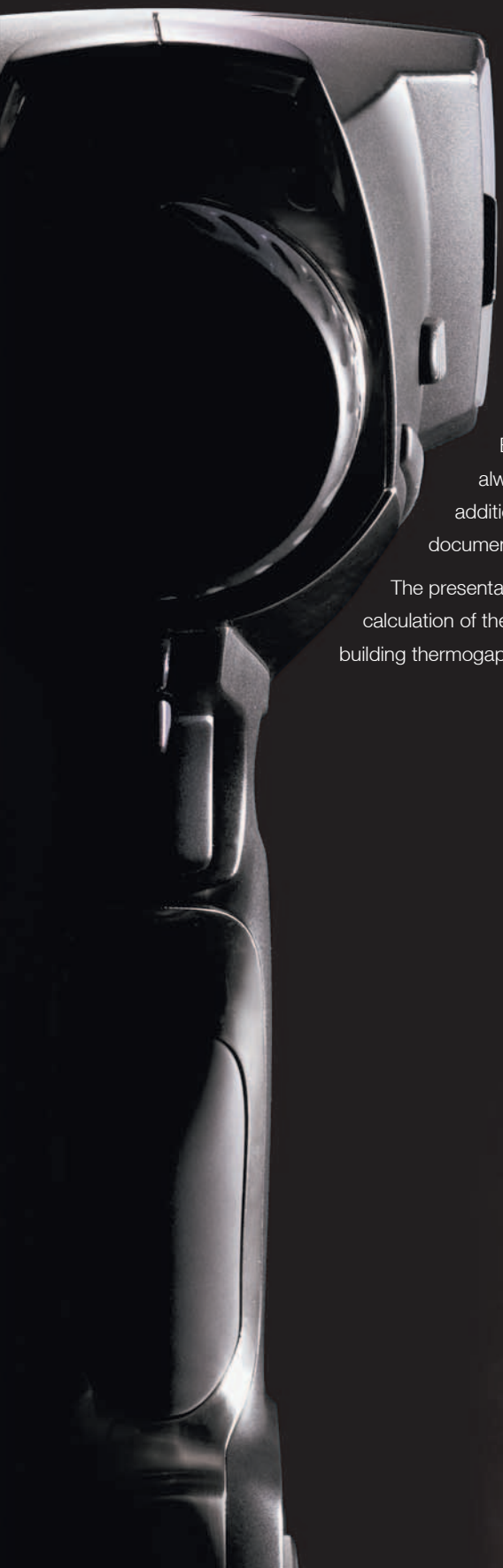
Committing to the future

See more with the thermal imager **testo 880**

NEW!

SEE MORE...



Infrared radiation cannot be perceived by the human eye. However, all objects whose temperature is above the absolute zero point of approximately -273 degrees centigrade, emit infrared radiation.

Thermal imagers can convert infrared radiation into electric signals, and thus present them visually. With the excellent image quality of the testo 880, even the smallest temperature differences can be seen. With it, Testo is committing to the future.

Exchangeable lenses ensure that the correct image section is always visible, highly flexibly and depending on the requirements. The additionally integrated digital camera considerably facilitates documentation.

The presentation of surface humidity, using dynamic humidity measurement and calculation of the parameters, for fast localization of mould risk spots, is unique in building thermogaphy.

...OFFER MORE.

Mobile thermal imagers scan equipment or buildings, and transform infrared radiation into visible thermal images with which a qualitative and quantitive analysis of temperature can be conducted.

The use of portable infrared measuring instruments offers great potential for assistance in many areas. Thermal imagers are of great significance in preventive service and maintenance, but also in building and production monitoring, as well as in technical diagnostics. A thermal imager detects anomalies, thus making the search for errors and the early implementation of correctional measures possible. It checks materials and components completely without any damage and exposes problem zones before a malfunction can occur. While other methods require production to be halted, or pipe systems to be dismantled, with the testo 880 a single glance is sufficient.

In many cases – whether in trade or in industrial surroundings – the use of thermography offers possibilities for improving quality, securing process and acheiving new performance.

Building shell

In building thermography, infrared technology is ideal for the fast and effective analysis of energy losses in the heating or air conditioning of buildings.

Thanks to its very high temperature resolution, less than 0.1 °C, the thermal imager testo 880 visualizes in detail defective insulation, thermal bridges, building defects and damage.

Building thermography

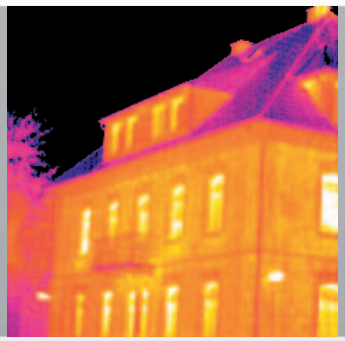
Underfloor heating

In installations too, such as the localization of leakages in underfloor heating or other inaccessible pipe systems, the testo 880 provides support in detecting causes. The one-hand operation, with motor focus and 5-way joystick, offers a fast and exact limitation of possible damage, and targeted maintenance.

Mould growth

The testo 880, the only thermal imager equipped with a wireless probe for real-time humidity measurement, delivers data with which dangerous, allergenic mould growth can be prevented, or the risk of mould contamination minimized, even in the corners and niches of a house.

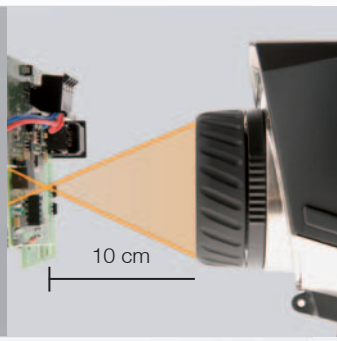
1 Perfect results thanks to exact and reliable inspection



Superlative image quality ensures reliable diagnoses, even for the smallest temperature differences

Integrated digital camera with power LEDs for the optimum illumination of dark areas

Dynamic motor focus for one-hand operation



Very short mimimum focus distance of approx. 10 cm for small objects

33 Hz real time image*

Thermal resolution <0.1°C

Large display, 320 x 240 pixels

*inside EU, 9 Hz outside

testo 880 – leading edge technology in a new price dimension

With a thermal resolution < 0.1 °C, perfectly developed electronics for the optimum utilization of the detector, and the image interpolation to 320 x 240 pixels, the testo 880 delivers high definition images which satisfy even the most demanding user. A wide angle and a telephoto lens enable adaptation to the different sizes and distances of measurement objects. The optimum exploitation of the IR radiation is guaranteed by the high-quality germanium optics.

testo 880, with an integrated digital camera and image-in-image function, links real and IR images for fast, safe and easy documentation. An exchangeable protective glass prevents damage to the valuable optics.

The easy creation of file structures reduces to a minimum the administrative effort for the planning and management of the images, measurement sites and tours.

3 Easy analysis

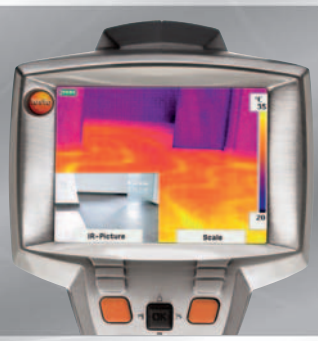
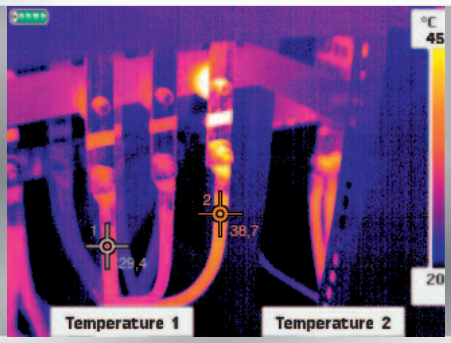


Image-in-image function for easier orientation and simple documentation



Two-point measurement for exact calculation of temperature differences

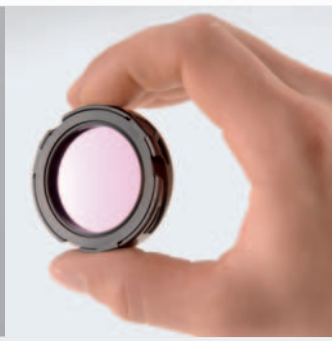
Integrated report creation makes documentation faster and more secure

2 Versatile and user-friendly

Real time humidity measurement by wireless probe

Dynamic motor focus

With exchangeable lens for highest versatility under different application conditions



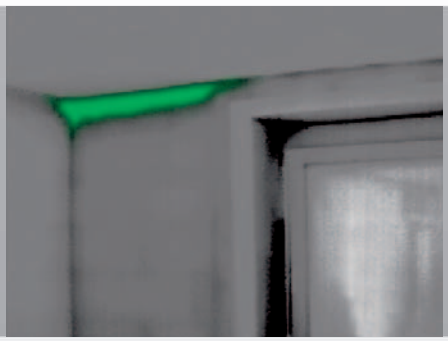
The IR protective glass protects the lens from dust and scratches

USB connection

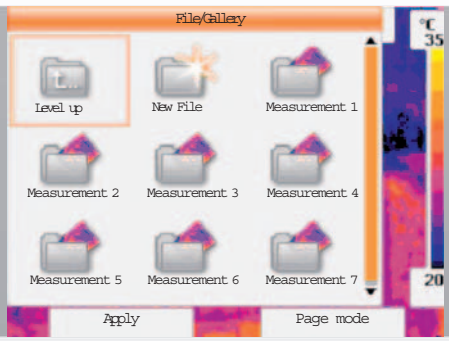
SD card

Freely programmable fast selection buttons

Easy joystick operation for navigating through menu and image gallery



Presentation of surface moisture for detecting mould risk spots



Measurement site management for creating inspection plans

Intuitive menu structure

Special software with report function

Industrial thermography

Electrical maintenance

In low, medium and high voltage systems, infrared thermography allows an evaluation of the level of warming. This enables defective components or connections to be identified early and the required preventive steps taken, thus minimizing the danger of fire and helping to avoid costly downtimes.
Documentation plays an important part in preventive maintenance. The testo 880 offers integrated measurement site management for the structuring of inspection routes. In addition to the infrared image, a real image of the measurement site can be recorded with the integrated digital camera. The power LEDs illuminate dark areas.The allocation of the real image to the infrared image is carried out by the software. The PC software with report creation links the image data automatically and allows fast, clear and easy documentation of the inspections.

Production monitoring and R & D

In the areas of process monitoring, quality assurance of the product, or research and development, the use of a thermal imager is, in many cases, the prerequisite for more security and precise situation analyses.
In addition to foreign bodies, anomalies in the heat distribution of components in production processes can thus also be detected quickly and without contact. When checking electrical assemblies, e.g. on circuit boards, the very short minimum focus distance of 10 cm helps to detect overheated components exactly.

Mechanical maintenance

Infrared measurements also offer multiple possibilities for use in industrial preventive maintenence.

A reliable early recognition of developing damage to process-relevant system components is important in order to guarantee high security and reliability of the machines. Heat development, especially in mechanical components can indicate strain caused by friction, incorrect adjustment, excessive tolerances of the components or insufficient lubrication. With its high temperature resolution, the testo 880 provides an exact diagnosis.

An overview

testo 880-1

The starter instrument for fast fault-finding and quality assurance

- High-quality wide angle lens 32° x 24° with F1 optics
- Image refresh rate 9 Hz
- Detector 160 x 120
- NETD < 0.1°C
- Manual focus
- Minimum focus distance 10 cm

Data storage device SD,
1 GB for approx. 800-1000 images

Included in delivery
- IR software with integrated report creation
- USB cable
- Li-ion battery
- High-quality, robust case

testo 880-1

Part no. 0563 0880 V1

testo 880-2

The professional thermal imager with extensive analysis functions, extendable by telephoto lens

Additional functions to testo 880-1:
- Exchangeable lenses
- Display of surface moisture distribution
- 33 Hz version*
- Lens protection glass included

testo 880-2

Part no. 0563 0880 V2

testo 880-3

The expert's thermal imager for the complete analysis and real image documentation of buildings, electrical systems and machines.

Additional functions to testo 880-2:
- Built-in digital camera with power LEDs
- Dynamic motor focus
- Real-time display of surface moisture distribution with wireless humidity probe (optional)

testo 880-3

Part no. 0563 0880 V3

*inside EU, 9 Hz outside

testo 880-3 Pro-Set

The expert's thermal imager with unbeatable price advantage

Additionally to the delivery scope of testo 880-3, the set contains:
· One telephoto lens
· One addition battery
· One fast charger
· The sunshield

testo 880-3 Pro-Set

Part no. 0563 0880 V4

Ordering information

	Order code	testo 880-1 0563 0880 V1	testo 880-2 0563 0880 V2	testo 880-3 0563 0880 V3	testo 880-3 Pro-Set 0563 0880 V4
Additionally in case					
Lens protection glass	C1	●	●	●	●
Telephoto lens	A1	–	●	●	●
Additional battery	D1	●	●	●	●
Fast charger	E1	●	●	●	●
Sunshield	F1	●	●	●	●
Humidity measurement	B1	–	–	●	●

All imagers are delivered in a robust case including SD card, USB cable, software, mains unit and adapter plate for tripod mounting.

● Standard ● Optional – Not available

Accessories	Part no.
Aluminium tripod	
Professional, extremely light and stable aluminium tripod with quick release legs and 3-way tripod head	0554 8804
Lens protection glass	
Special protective glass made of germanium, for optimum protection against dust and scratches	0554 8805
Additional battery	
Additional Lithium-ion battery to prolong operating time	0554 8802
Fast charger	
Desktop fast charger for two batteries to optimize charging time	0554 8801
Sunshield	
Special sunshield for the display of the testo 880 in bright surroundings	0554 8806
Retrofit telephoto lens	
(for testo 880-2 and -3); please contact our customer service	
Adhesive tape	
Adhesive tape e.g. for reflective surfaces (roll, L.: 10 m, B.: 25 mm), E=0.95	0554 0051
ISO calibration certificate for testo 880	
Calibration points at 0 °C, 25 °C, 50 °C in measuring range -20 °C to 100 °C	0520 0489
Calibration points at 0 °C, 100 °C, 200 °C in measuring range 0 °C to 350 °C	0520 0490
Freely selectable calibration points in the range -18 °C to 250 °C	0520 0495

Fast charger

Sunshield

Lens protection glass

Additional battery

Aluminium tripod

Technical data

	testo 880-1	testo 880-2	testo 880-3
Image specifications			
Infrared			
Optical field/min. focus distance	32° x 24° / 0,1 m (standard lens), 12° x 9° / 0,6 m (telephoto lens)		
Thermal sensitivity (NETD)	<0,1 °C at 30 °C		
Geometric resolution	3,5 mrad (standard lens), 1,3 mrad (telephoto lens)		
Image refresh rate	9 Hz	9 Hz outside, 33 Hz inside EU	
Focus	manual		manual + motorized
Detector type	FPA 160 x 120 pixels, a.Si, temperature-stabilized		
Spectral range	8 to 14 µm		
Visual			
Optical field/min. focus distance			33,2° x 25,2° / 0,4 m
Image size			640 x 480 Pixel
Image refresh rate			8 ... 15 Hz
Image presentation			
Image display	3.5" LCD with 320 x 240 Pixel		
Display options	IR image only		IR image only / real image only / IR and real image
Video output	USB 2.0		
Video stream	9 Hz	25 Hz	
Colour palettes	8 options		
Measurement			
Temperature range	-20 to +100 °C 0 to +350 °C (switchable)		
Accuracy	±2 °C, ±2% of mv		
Minimum diameter measurement point	3 x 3 pixels: standard 10 mm at 1 m (standard lens), standard 4 mm at 1 m (telephoto lens)		
Switch-on time	40 s		
Humidity measurement and air temperature measurement with wireless probe (optional)			0 to 100 %RH / -20 to +70 °C td -20 to +70 °C (air temperature with NTC)
Accuracy wireless probe			±2 %RH / ±0,5 °C (air temperature)
Measurement functions	Standard measurement (1-point), 2-point measurement		
		Display of surface moisture distribution via manual input of humidity	
			Optional humidity measurement with wireless humidity probe
Reflected temperature compensation	manual		
Setting emissivity	Nine materials programmable, of which one user-defined (0.01 - 1.0)		
Image storage			
File format	.bmt; export possibility to in .bmp, .jpg, .csv		
Data storage device	SD card		
Store capacity	1 GB (approx. 800-1.000 images)		
Optics			
Standard lens (32°)	yes		
Telephoto lens (12°)	no	yes, optional	
Laser measurement spot marking			
Classification of laser	635nm, Class 2		
Current supply			
Battery type	Fast charging, Li-ion battery, changeable on site		
Operating time	approx 5 h at 20 °C		
Charging options	in instrument/charger (optional)		
Mains operation	yes		
Output voltage	5 V / 4 A		
Ambient conditions			
Operating temperature range	-15 to +40 °C		
Storage temperature range	-30 to +60 °C		
Air humidity	20 % to 80 % non-condensing		
Protection class of housing	IP54		
Physical characteristics			
Weight	900 g		
Dimensions	152 x 106 x 262 mm		
Tripod mounting	yes		
Housing	ABS, diecast zinc		
PC software			
System requirements	Windows XP (Service Pack 2), Windows Vista, interface USB 2.0		
	2004 / 108 / EG		
	2 years		

Subject to change without notice.

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