



Committing to the future

Capture what you couldn't see testo 880 Thermal Imager

NEW!



880 Thermal Imager

The testo 880 Thermal Imager is an innovative new imager/camera that lets you actually see heat...

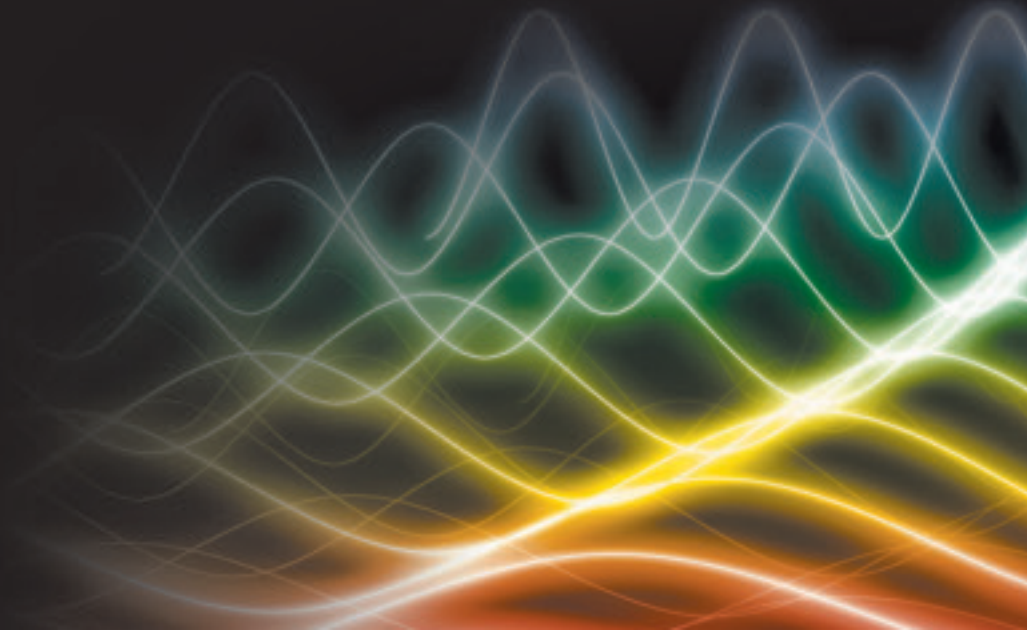
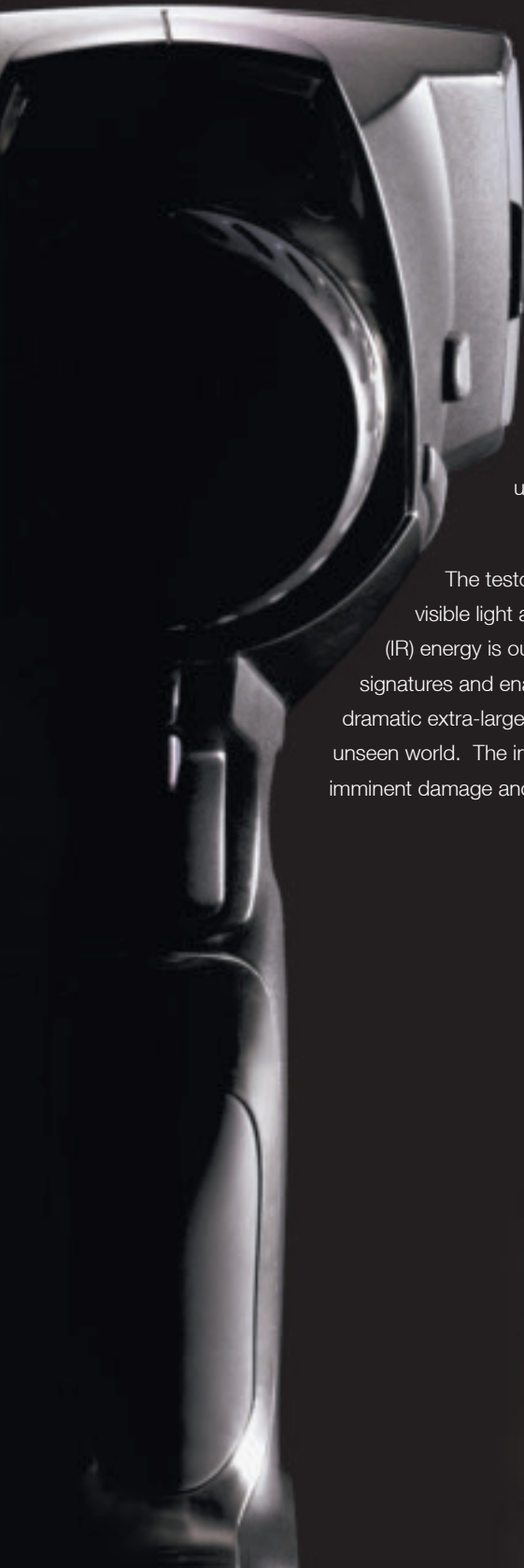
...the heat that bleeds through walls, doors, and windows due to poor construction, insulation or design

...and the heat from a faulty electrical connection about to fail

... and the heat of friction in a failing bearing of a motor or compressor

...and the cooling created by moisture trapped behind a wall or under a floor that can cause mold growth...and more!

The testo 880 Thermal Imager allows the user to see beyond the range of visible light and to capture images of object temperatures. Even though infrared (IR) energy is outside the visible range, the testo 880 thermal imager detects IR signatures and enables you to see temperatures displayed in real-time images. The dramatic extra-large display of the testo 880 offers a picture window on a previously unseen world. The image you hold in your hand provides valuable information about imminent damage and lets you plan repairs.

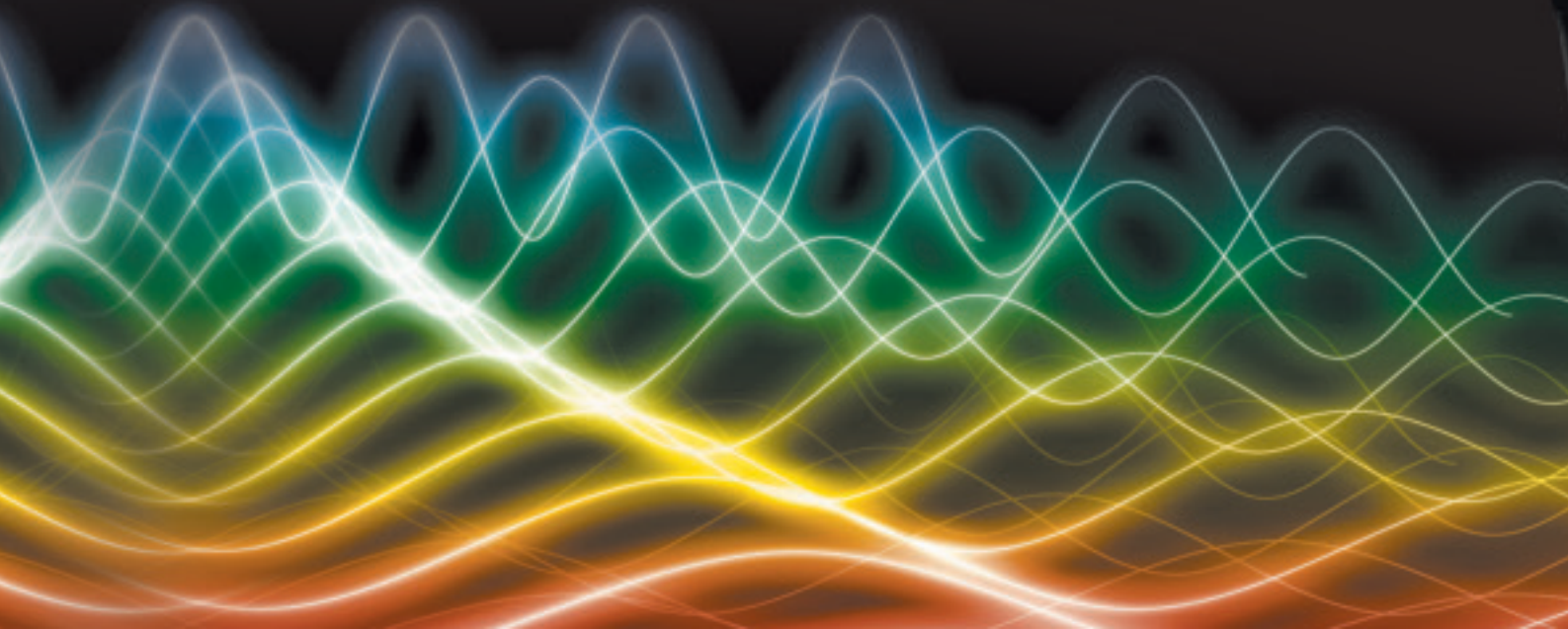


Capture what you couldn't see!

The latest technological advances are readily apparent in the imaging capabilities of the testo 880 Thermal Imager. **Unsurpassed sensitivity** (.1°C NETD) detects even the smallest temperature differences. **Image interpolation** to 320x240 pixels creates a vibrant presentation on screen and in reports.

Interchangeable lenses, integrated digital camera, and motorized focusing are features unique to the testo 880 in its class. With a **5-way joystick** to navigate the **drop down menu** selections, two **user defined function keys**, and single handed operation, using the 880 couldn't be easier.

Store the thermal images in **user defined folders** in memory. **Digital photos** on some models provide clear identification of the measurement site. Download the thermal image and digital photo into **testo report software**. User friendly format generates quick and easy **professional client reports**.





Building envelope

Thermal imaging is the ideal tool when inspecting residential and commercial buildings. Quickly identify the points of heat loss and water leakage in buildings. The large color screen on the testo 880 displays temperature differential where insulation or construction detail is deficient. Highlight leaks in joints and connections, where doors and windows don't fit properly.

Building applications

“See” behind surfaces

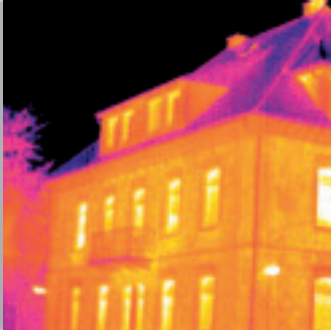
Check floors, ceilings, walls, and roofs to spot thermal anomalies indicating leaks of air or water. As you ponder the critical question, „Is the heat where it belongs?“ the 880 can provide the answer.



Mold growth

Wet conditions, and mold breeding areas are signified by cooler temperatures. Thanks to the very high temperature resolution of less than 0.1 °C, the testo 880 is able to clearly define the suspect areas on the display and in saved images.

Exceptional image quality with full-screen display



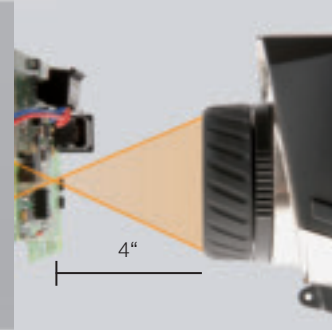
Outstanding image quality ensures accurate diagnoses, even for the smallest temperature differences



Integrated digital camera with power LEDs to eliminate dark areas



Dynamic motor focus for one-hand operation



Very short minimum focus distance of approx. 4" for small objects

Ergonomic design



Thermal resolution $<0.1^{\circ}\text{C}$

3.5" screen, 320 x 240 pixels

testo 880 – Thermal Imager

With a thermal resolution $< 0.1\text{ }^{\circ}\text{C}$, and the image interpolation to 320×240 pixels, the testo 880 delivers high definition images which satisfy even the most demanding user. A wide angle and an optional telephoto lens enable adaptation to the different sizes and distances of measurement objects. The optimal image presentation is assured by the high-quality germanium optics.

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

The easy creation of file structures reduces the administrative effort for managing the images, measurement sites and paths.

Integrated digital camera

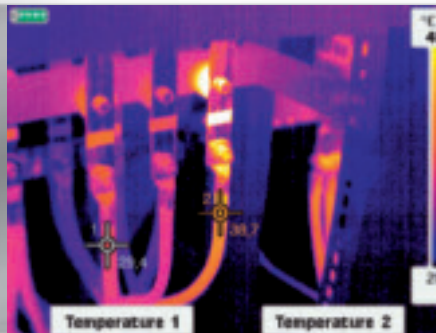
High-quality F1 optics with protective lens

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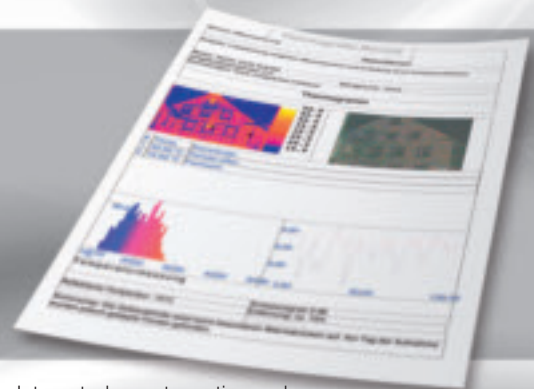
Professional Report Writer



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



Two-point measurement for precise calculation of temperature differences



Integrated report creation makes documentation quick and easy

Power LEDs



Dynamic motor focus

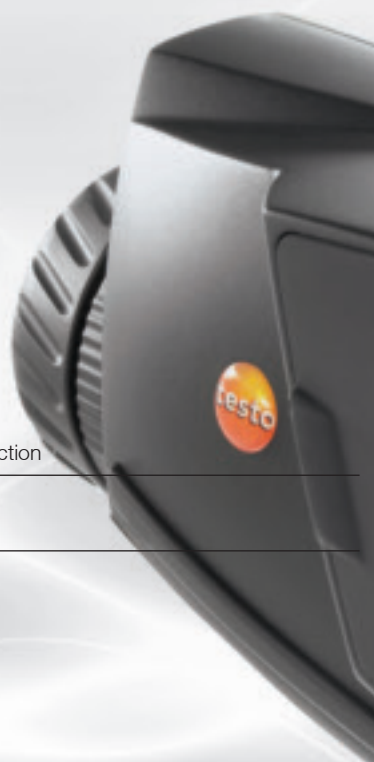


With interchangeable lens caps, the device offers versatility under different application conditions.

USB connection

SD card

Programmable fast selection buttons



Simple operation



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The IR protective lens shields the optics from dust and scratches

Easy joystick operation for navigating through menu and image gallery

Measurement file management for creating inspection plans

Intuitive menu structure

All models include report writing software



Electrical equipment assessment

Excess heat is the signature of problems in electrical, electronic, as well as mechanical equipment. Identifying problems before they become failures can save costly shutdowns and expensive repairs! The testo 880 has unique close-focus capabilities to enable the operator to zero in on problems with circuit boards, electronic components, wires, switches and breakers. High voltage electrical components are dangerous and difficult to measure temperatures accurately. Matters are more difficult because the location is often high and out-of-the-way. The testo 880 presents clear, close and accurate temperature measurements with an optional telephoto lens.



Industrial uses

Production monitoring

Industrial facilities are a diverse collection of motors, drives, pumps, transports, and assorted mechanical devices that if any one should fail, production stops! The testo 880 offers a detailed picture of the thermal profiles of products and equipment on the factory floor. Focus to within 4" and identify which product component is likely to fail, or step back and scan a series of rotating machines to see developing hot spots.



Mechanical maintenance

Thermal Imaging is becoming extremely popular in the area of preventive maintenance because of the cost savings it creates and downtime it prevents! Heat generated in mechanical components can indicate strain caused by friction, incorrect adjustments, or insufficient lubrication. The 880 also has two spot indicators to provide a precise temperature differential on screen and in reports. Routine monitoring of motors, pumps, drives, etc. allows the operator to identify problems before they occur.





An overview

testo 880-1

The basic imager with fast fault-finding and quality images

- High-quality wide angle lens (32° x 24°) with F1 optics
- Detector 160 x 120
- NETD < 0.1°C
- Manual focus
- Minimum focus distance 4"

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

Includes:

- IR software with integrated report creation
- USB cable
- Li-Ion battery
- High-quality, rugged case

testo 880-1

Part no. 0563 0880 V1

testo 880-2

The professional thermal imager with extensive analysis functions, and optional telephoto lens

The testo 880-1 imager features plus:

- Interchangeable lenses
- Protective lens

testo 880-2

Part no. 0563 0880 V2

testo 880-3

The expert's thermal imager for a complete analysis with visual image documentation of buildings, electrical systems and machinery.

The testo 880-2 imager features plus:

- Built-in digital camera with power LEDs
- Dynamic motor focus

testo 880-3

Part no. 0563 0880 V3

Thermography seminars: Learn more. Know more. See more.

Testo offers thermography seminars and webinars with industry leading, qualified experts. Flexible training sessions are available in one, two, three and even four day seminars and conclude with a certification exam. Tailored sessions can be held on site for larger training groups. Practical exercises and helpful instruction are utilized in all the application modules, coupled with an overview of infrared measurement technology. For more information or registering for a thermography seminar in your area contact testo directly or visit www.testo.com

testo 880-3 Expert Kit

Full featured thermal imager with unbeatable option package

The testo 880-3 Expert Kit also includes:

- Telephoto lens
- Additional battery
- Fast charger
- Sunshield



testo 880-3 Expert Kit

Part no. 0563 0880 V4

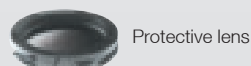
Ordering information

	Ordering code	testo 880-1 0563 0880 V1	testo 880-2 0563 0880 V2	testo 880-3 0563 0880 V3	testo 880-3 Expert Kit 0563 0880 V4
Additionally in case					
Protective lens	C1	●	●	●	●
Telephoto lens	A1	–	●	●	●
Additional battery	D1	●	●	●	●
Fast charger	E1	●	●	●	●
Sunshield	F1	●	●	●	●

All imager kits include a rugged case with SD card, USB cable, software, power supply and adapter plate for tripod mounting

● Standard ● Optional – Not available

Accessories	Part no.
Aluminum tripod Professional, extremely light and stable aluminium tripod with quick release legs and 3-way tripod head	0554 8804
Protective lens 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 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 from -20 °C to 100 °C (-4 to 212°F)	0520 0489
Calibration points at 0 °C, 100 °C, 200 °C from 0 °C to 350 °C(32 to 662°F)	0520 0490
Selectable calibration points from -18 °C to 250 °C(0 to 482°F)	0520 0495



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		
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		
Measurement functions	Standard measurement (1-point)	Standard measurement (1-point), 2-point measurement	
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° x 24°)		yes	
Telephoto lens (12° x 9°)	no	yes, optional	
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 power supply	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		
Norms, tests, warranty			
EU-guideline	2004 / 108 / EG		
Warranty	2 years		



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