We measure it. **testo**

Thermal imager

testo 871 – smart thermography for professional demands.

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

Thermal sensitivity <90 mK

Integrated digital camera

Smartphone/tablet connection via testo Thermography App

Wireless measurement data transfer from testo 770-3 TRMS Clamp Meter and humidity measuring instrument testo 605i

With testo ScaleAssist and testo ε-Assist

°C

testo Thermography App
for free download

GET IT ON Google Play   Download on the App Store

The thermal imager testo 871 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 enable objectively comparable and error-free thermal images to be recorded.

For even more meaningful thermal images, the thermal imager also wirelessly integrates the measurement values of the clamp probe testo 770-3 as well as the thermohygrometer testo 605i (both available as an option).

www.testo.co.uk

Ordering data

testo 871

Thermal imager testo 871 with Bluetooth and WiFi, USB cable, mains unit, Lithium-ion rechargeable battery, 3 x ε-markers, quick-start guide, short instructions, calibration protocol and case

Order no. 0560 8712

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 devices free of charge.

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Accessories	Order no.	
Spare battery, additional Lithium-ion rechargeable battery for extending the operating time.	0515 5107	
Battery charger, desktop charging station for optimising the charge time.	0554 1103	
testo ε-marker (10 pcs), markers for the testo ε-Assist function for the automatic determination of emissivity and reflected temperature.	0554 0872	
Holster case	0554 7808	
ISO calibration certificate, calibration points at 0 °C, +25 °C, +50 °C	0520 0489	
ISO calibration certificate, calibration points at 0 °C, +100 °C, +200 °C	0520 0490	
ISO calibration certificate, freely selectable calibration points in the range -18 to +250 °C	0520 0495	

Compatible measuring instruments for more meaningful thermal images	Order no.	
testo 605i Thermohygrometer Smart Probe with smartphone/tablet operation, including batteries and calibration protocol • Measurement of air humidity and air temperature • Transmission of measurement values to the testo 871 thermal imager via Bluetooth, and identification of mould-risk areas using a traffic-light system	0560 1605	
testo 770-3 TRMS Clamp Meter including batteries and 1 set of measuring cables • Easy to operate thanks to the fully retractable pincer arm • Auto AC/DC and large two-line display • Transmission of measurement values to the testo 871 thermal imager via Bluetooth	0590 7703	

testo ε-Assist

For precise thermal images, it is important to set the emissivity (ε) and the reflected temperature of the object being examined by the imager. Previously, this was complicated, and with regard to the reflected temperature, less accurate. This changes with testo ε-Assist: Simply attach one of the reference stickers 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.

testo ScaleAssist

Since the temperature scale and colouring of thermal images can be adapted individually, it is possible that the thermal behaviour of a building, for example, can be wrongly interpreted. The testo ScaleAssist function solves this problem by adjusting the colour distribution of the scale to the interior and exterior temperature of the measurement object and the difference between them. This ensures objectively comparable and error-free thermal images.

Thermal image without ScaleAssist

Thermal image with ScaleAssist

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	
WiFi 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	4

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	4
IFOV warning	4
Humidity mode – manual	4
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	4
Lens	35° x 26°
Video streaming	via USB, via WiFi to 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	Lithium-ion battery - can be changed on-site
Operating time	4 hours
Charging options	In instrument/in charging station (optional)
Mains operation	4

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

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