

Thermal imager

**testo 875 and testo 875i –
the entry into professional
thermography**

Detector size 160 x 120 pixels

SuperResolution technology to 320 x 240 pixels

Thermal sensitivity up to < 50 mK

Built-in digital camera with power LED's

Large 3.5" LCD display

32° wide angle lens for wide field of view

Exchangeable lenses

Measurement mode for detecting areas with danger of
mould

High temperature measurement option up to 550 °C



Testo 875 series Thermal Imaging Cameras can be used to quickly and reliably detect Thermal Anomalies. The Testo 875 Thermal Imagers are affordable and highly suited, due to their “Universal” capabilities for a wide range of applications in industrial and mechanical maintenance, process monitoring and building thermography.

The Testo 875 is ideal as an investigative tool or condition monitoring instrument, for conducting thermal surveys of electrical and mechanical installations and for production monitoring of manufacturing processes. The Testo 875 can

also be used for energy efficiency applications, such as monitoring building heat loss, tracing air leakage and high-lighting potential mould growth.

Available: Testo 875-1, Testo 871-1i, Testo 875-2i and 875-2i Professional Set.

The advantages of the testo 875 and testo 875i



Detector size 160 x 120 pixels (19,200 pixels)

Providing optimum image quality and resolution, clearly and precisely on the Large Display.



SuperResolution technology (to 320 x 240 pixels)

SuperResolution technology improves the image quality by one class, increasing the resolution of the images in the software and reports by four times, to 76,800 pixels.



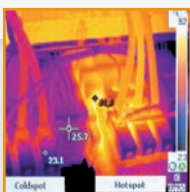
Thermal sensitivity < 0.05°C (50 mK)

Thanks to an excellent temperature resolution of up to <50 mK, even small temperature differences are visible (Testo 875i series).



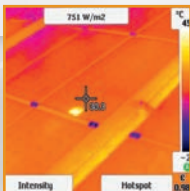
Built-in digital camera with power LEDs

Parallel to the thermal image, a real image of the measurement subject is also captured and stored. (Testo 875i series).



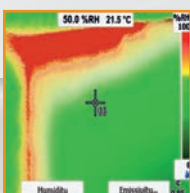
Automatic Hot/Cold Spot Recognition

Critical measurement points for the Hottest and Coldest Spot temperatures are automatically displayed using the Auto Hot / Cold Spot Recognition feature.



Solar mode

For each measurement, the sun irradiation value can be entered into the camera. This value is stored for each thermal image.



Special measurement mode for detecting areas with danger of mould

Using the externally measured ambient temperature and air humidity, as well as the surface temperature, the humidity value of each measurement point is calculated and shown in the display as a real humidity image, relating to the calculated Dewpoint. (Testo 875i series).



Exchangeable lenses

Function of the PC software: Image overlay TwinPix



Technical data testo 875 and testo 875i



Lens protection glass



Intuitive operation



	testo 875-1	testo 875-1i	testo 875-2i
Infrared image output			
Detector type	FPA 160 x 120 pixels, a.Si		
Thermal sensitivity (NETD)	< 80 mK at 30 °C	< 50 mK at 30 °C	
Field of vision/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)		
SuperResolution (pixel / IFOV) - optional	320 x 240 pixels / 2,1 mrad (standard lens) 0,6 mrad (telephoto lens)		
Image refresh rate	9 Hz		33 Hz*
Focus	manual		
Spectral range	8 to 14 µm		
Image output 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 / 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	-20 to +100 °C/0 to +280 °C (switchable)	-20 to +100 °C / 0 to +350 °C (switchable)	
High temperature measurement - optional	-		+350 to +550 °C
Accuracy	±2 °C, ±2% of m.v.		±2 °C, ±2% of m.v. ±3% of m.v. (+350 to +550 °C)
Emissivity / reflected temperature	0.01 to 1 / manual		
Measuring functions			
Display of surface moisture (via manual input)	-	-	✓
Humidity measurement with wireless humidity probe** (automatic measurement value transfer in real time)	-	-	(✓)
Solar mode		✓	
Analysis function	Centre point meas- urement, Hot-/Cold-Spot recognition	Up to 2 measure- ment points, Hot-/Cold Spot Recognition	Up to 2 measurement points, hot/cold Spot recognition, isotherm, area measurement (Min-/Max-On-Area)
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 options in .bmp, .jpg, .png, .csv, .xls		
Storage device	SD card 2 GB (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 °C to +40 °C		
Storage temperature range	-30 °C to +60 °C		
Air humidity	20% to 80% non-condensing		
Housing protection class (IEC 60529)	IP 54		
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), interface USB 2.0		
Standards, tests, warranty			
EU Directive	2004 / 108 / EG		
Warranty	2 years		

- ✓ Standard
- (✓) optional
- not available

* Within the EU and for countries without export restrictions, otherwise 9 Hz
 ** Wireless humidity probes only in the EU, Norway, Switzerland, Croatia, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia
 *** Excepting USA, Japan and China

Overview of variants

Features	testo 875-1	testo 875-1i	testo 875-2i	testo 875-2i set
Detector	160 x 120 pixels			
Thermal sensitivity (NETD)	< 80 mK	< 50 mK		
Temperature range	-20 to +280 °C	-20 to +350 °C		
Image refresh rate	9 Hz	33 Hz*		
Lens 32° x 23°	✓	✓	✓	✓
Exchangeable telephoto lens 9° x 7°	-	-	(✓)	✓
SuperResolution	(✓)	(✓)	(✓)	(✓)
High temperature measurement up to 550 °C	-	-	(✓)	(✓)
Integrated digital camera	-	✓	✓	✓
Integrated power LEDs	-	-	✓	✓
Voice recording using the headset	-	-	✓	✓
Laser**	-	✓	✓	✓
Display of surface moisture (via manual input)	-	-	✓	✓
Humidity measurement with wireless humidity probe*** (automatic measurement value transfer in real time)	-	-	(✓)	(✓)
Isotherm display in instrument	-	-	✓	✓
Min/Max on Area calculation	-	-	✓	✓
Auto Hot/Cold Spot Recognition	✓	✓	✓	✓
Solar mode	✓	✓	✓	✓
Lens protection glass	(✓)	(✓)	(✓)	✓
Additional battery	(✓)	(✓)	(✓)	✓
Fast battery charger	(✓)	(✓)	(✓)	✓

✓ included in delivery (✓) optional

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** excepting USA, China and Japan

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Ordering data

Thermal imagers testo 875 and 875i	Order no.
Thermal imager testo 875-1 in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, Li ion rechargeable battery and tripod adapter.	0560 8751
Thermal imager testo 875-1i in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, Li ion rechargeable battery and tripod adapter.	0563 0875 V1
Thermal imager testo 875-2i in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, Li ion rechargeable battery and tripod adapter.	0563 0875 V2
Thermal imager testo 875-2i set in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, Li ion rechargeable battery and tripod adapter.	0563 0875 V3

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

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



Accessories	Code ¹⁾ (First equipment testo 875i)	Order no. (Retrofit)
SuperResolution. Four times more measurement values for even more detailed analysis of the thermal images.	S1	0554 7806
Lens protection glass. Special Germanium protective glass for optimum protection of the lens from dust and scratching	C1	0554 8805
Additional battery. Lithium ion rechargeable battery for extending the operating time	D1	0554 8802
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time.	E1	0554 8801
Telephoto lens 9° x 7° (testo 875-2i only)	A1	²⁾
High temperature measurement up to 550 °C (testo 875-2i only)	G1	²⁾
Humidity measurement with wireless humidity probe*** (only testo 875-2i)	B1	^{2) 3)}
Emissivity adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), e=0.95, temperature-resistant to +250 °C		0554 0051
ISO calibration certificates Calibration points at 0 °C, +25 °C, +50 °C Calibration points at 0 °C, +100 °C, +200 °C Freely selectable calibration points in the range -18 °C to +250 °C		0520 0489 0520 0490 0520 0495

¹⁾ When ordering as initial equipment, you receive the accessories directly in the case.
Example: testo 875-1i incl. lens protection glass and spare battery:
Order no. 0563 0875 V1 C1 D1

²⁾ Please contact our customer service

³⁾ Plus installation

Subject to change without notice.

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