

# Thermal imager

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

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Detector size 160 x 120 pixels

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SuperResolution technology to 320 x 240 pixels

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Thermal sensitivity < 50 mK

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Built-in digital camera with power LED's

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Exchangeable lenses

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Measurement mode for detecting areas with danger of  
mould

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High temperature measurement up to 550 °C

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The thermal imager testo 875 quickly and reliably detects anomalies and weak spot in materials and components. Thanks to an imaging process, energy losses and cold bridges as well as damage or overheating in industrial systems are detected without contact. Whereas with other

methods, cable or pipeline systems must be exposed over a large area, with the thermal imager testo 875, a single glance is enough.

## The advantages of the testo 875 and testo 875i

**160  
X  
120**

### Detector size 160 x 120 pixels

With 19,200 temperature measurement points, the measurement objects are detected in very good image quality, clearly and precisely.



Exchangeable lenses

**SUPER  
RESOLUTION**

### SuperResolution technology (to 320 x 240 pixels)

SuperResolution technology improves the image quality by one class, i.e. the resolution of the thermal images is four times higher.

**NETD  
< 50 mK**

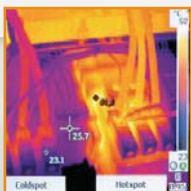
### Thermal sensitivity < 50 mK

Thanks to an excellent temperature resolution of up to < 50 mK, even small temperature differences are visible.



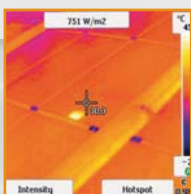
### Built-in digital camera with power LEDs

Parallel to the thermal image, a real image of each measurement object is also stored.



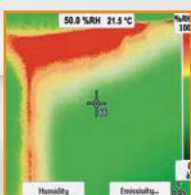
### Automatic Hot/Cold Spot Recognition

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



### 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 areal humidity image.

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
<b>Infrared image output</b>			
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		
<b>Image output visual</b>			
Image size / min. focusing distance	-	640 x 480 pixels / 0.4 m	
<b>Image presentation</b>			
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)		
<b>Measurement</b>			
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		
<b>Measuring functions</b>			
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)
<b>Imager equipment</b>			
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)	✓		
<b>Image storage</b>			
File format	.bmt; export options in .bmp, .jpg, .png, .csv, .xls		
Storage device	SD card 2 GB (approx. 2.000 images)		
<b>Power supply</b>			
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		
<b>Ambient conditions</b>			
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		
<b>Physical specifications</b>			
Weight	approx. 900 g		
Dimensions (L x W x H) in mm	152 x 108 x 262		
Tripod mounting	M6		
Housing	ABS		
<b>PC software</b>			
System requirements	Windows XP (Service Pack 3) Windows Vista, Windows 7 (Service Pack 1), interface USB 2.0		
<b>Standards, tests, warranty</b>			
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  
 \*\*\* Wireless humidity probes only in the EU, Norway, Switzerland, Croatia, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia

## Ordering data

Thermal imagers testo 875 and 875i	Order no.
<b>Thermal imager testo 875-1</b> 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
<b>Thermal imager testo 875-1i</b> 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
<b>Thermal imager testo 875-2i</b> 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
<b>Thermal imager testo 875-2i set</b> 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 <sup>1)</sup> (First equipment testo 875i)	Order no. (Retrofit)
<b>SuperResolution.</b> Four times more measurement values for even more detailed analysis of the thermal images.	S1	0554 7806
<b>Lens protection glass.</b> Special Germanium protective glass for optimum protection of the lens from dust and scratching	C1	0554 8805
<b>Additional battery.</b> Lithium ion rechargeable battery for extending the operating time	D1	0554 8802
<b>Fast battery charger.</b> Desktop charging station for two rechargeable batteries for the optimization of the charging time.	E1	0554 8801
<b>Telephoto lens 9° x 7°</b> (testo 875-2i only)	A1	2)
<b>High temperature measurement up to 550 °C</b> (testo 875-2i only)	G1	2)
<b>Humidity measurement with wireless humidity probe***</b> (nur testo 875-2i)	B1	2) 3)
<b>Emissivity adhesive tape.</b> Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), e=0.95, temperature-resistant to +250 °C		0554 0051
<b>ISO calibration certificates</b> 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

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