

# Thermal imager

## testo 875i – versatile professional-level thermography



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Infrared resolution 160 x 120 pixels  
testo SuperResolution technology to 320 x 240 pixels

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Thermal sensitivity < 50 mK

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Measurement mode for detecting mould-risk areas

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Built-in digital camera with power LEDs

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Exchangeable lenses

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High temperature measurement up to 550 °C

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The testo 875i thermal imager detects anomalies and weak spots in materials and components quickly and reliably. 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 875i, a single glance is enough. testo SuperResolution technology also increases the resolution of the testo 875i from 160 x 120 pixels in the Software testo IRSof to 320 x 240 pixels. That's four times as many readings, enabling you to spot even the smallest irregularities.

## Ordering data

### testo 875-1i

Thermal imager testo 875-1i with integrated testo SuperResolution and digital camera, in a robust case, including pro software (free download), soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery and tripod adapter



Part no. 0563 0875 V1

### testo 875-2i

Thermal imager testo 875-2i with integrated testo SuperResolution and digital camera, in a robust case including pro software (free download), soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery, tripod adapter and headset



Part no. 0563 0875 V2

### testo 875-2i set

Thermal imager testo 875-2i set with integrated testo SuperResolution and digital camera, in a robust case, including pro software (free download), soft case, carrying strap, SD card, USB cable, lens cleaning cloth, mains unit, rechargeable Li-ion battery, tripod adapter, headset, 9° x 7° telephoto lens, lens protector, spare rechargeable battery and fast battery charger



Part no. 0563 0875 V3

## Accessories

	Code <sup>1)</sup> (First equipment testo 875i)	Part no. (Retrofit)	
SuperResolution. Four times more measurement values for even more detailed analysis of the thermal images	included in delivery	0554 7806	
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of charging time	E1	0554 8801	
Additional battery. Additional lithium ion rechargeable battery for extending the operating time	D1	0554 8802	
Lens protection glass. Special Germanium protective glass for optimum protection of the lens from dust and scratching	C1	0554 8805	
Retrofit telephoto lens (for testo 875-2 only); please contact our customer service	A1	<sup>2)</sup>	
High temperature measurement up to 550 °C (testo 875-2i only)	G1	<sup>2)</sup>	
Humidity measurement with wireless humidity probe* (testo 875-2i only)	B1	<sup>2) 3)</sup>	
Emission adhesive tape. Adhesive tape, e.g. for reflective surfaces (roll, L.: 10 m, W.: 25 mm), ε = 0.95, temperature resistant to +250 °C		0554 0051	
PC software testo IRSoft for data analysis and reporting		0501 8809	
ISO calibration certificates; Calibration points at 0 °C, +25 °C, +50 °C		0520 0489	
ISO calibration certificates; Calibration points at 0 °C, +100 °C, +200 °C		0520 0490	
ISO calibration certificates; Freely selectable calibration points in the range -18 to +250 °C		0520 0495	

\*Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia

<sup>1)</sup> 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

<sup>2)</sup> Please contact our customer service

<sup>3)</sup> Plus installation

# Technical data

	testo 875-1i	testo 875-2i
<b>Infrared image output</b>		
Infrared resolution	160 x 120 pixels	
Thermal sensitivity (NETD)	< 50 mK at +30 °C	
Field of view/min. focus distance	32° x 23° / 0.1 m (Standard lens)	32° x 23° / 0.1 m (Tele: 9° x 7° / 0.5 m)
Geometric resolution (IFOV)	3.3 mrad (Standard lens)	3.3 mrad (Tele: 1.0 mrad)
SuperResolution (pixel / IFOV)	320 x 240 pixels / 2.1 mrad (Standard lens)	320 x 240 pixels / 2.1 mrad (Tele: 0.6 mrad)
Image refresh rate	33 Hz*	
Focus	manual	
Spectral range	7.5 to 14 µm	
<b>Image output visual</b>		
Image size / min. focus 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 / real image only / 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>		
Measuring range	-30 to +100°C / 0 to +350 °C (switchable)	
Accuracy	±2 °C, ±2 % of measurement value (larger value applies) (±3 °C of m.v. at -30 to -22 °C)	
High temperature measurement – optional	–	+350 to +550 °C
Accuracy		±3 % of m.v. at +350 to +550 °C
Emissivity / reflected temperature	0.01 to 1 / manual	
<b>Measuring functions</b>		
Display of surface moisture distribution (using manual input)	–	✓
Humidity measurement with radio humidity probe (automatic measurement value transfer in real time)**	–	(✓)
Solar mode		✓
Analysis function	up to 2 measurement points, Hot/Cold Spot Recognition	up to 2 measurement points, Hot/Cold Spot Recognition, Isotherms, Area measurement (Min-/Max on Area)

	testo 875-1i	testo 875-2i
<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 option in .bmp, .jpg, .png, .csv, .xls	
Storage device	SD card 2GB (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 to +40 °C	
Storage temperature range	-30 to +60 °C	
Air humidity	20 to 80 % RH non-condensing	
Housing protection class (IEC 60529)	IP54	
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), Windows 8, interface USB 2.0	
<b>Standards, tests</b>		
EU Directive	2004 / 108 / EC	

- ✓ included in delivery
- (✓) optional
- not available

\* inside the EU, outside 9 Hz  
 \*\* Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia  
 \*\*\* excepting USA, China and Japan

## Overview of variants

Features	testo 875-1i	testo 875-2i	testo 875-2i Set
Infrared resolution	160 x 120 pixels		
Thermal sensitivity (NETD)	< 50 mK		
Measuring range	-30 to +350 °C		
Image refresh rate	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 pointer**	✓	✓	✓
Display of surface moisture distribution (by 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
- not available

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 \*\* excepting USA, China and Japan  
 \*\*\* Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia