

## **Datasheet**

# Thermal imager

testo 875 and testo 875i - versatile professional-level thermography

Infrared resolution 160 x 120 pixels / 320 x 240 pixels#

Thermal sensitivity < 50 mK

Built-in digital camera with power LEDs

Exchangeable lenses

Measurement mode for detecting mould-risk areas

High temperature measurement up to 550 °C



The thermal imager testo 875 quickly and reliably detects anomalies and weak spots 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.



### Ordering data

#### testo 875-1

The thermal imager testo 875-1 with a detector resolution of 160 x 120 pixels / 320 x 240 pixels\*, a thermal sensitivity of < 80 mK and 32° standard lens. In a robust case including pro software, Soft-Case, carrying strap, SD-card, USB cable, lens cleaning cloth, mains unit, Li-ion rechargeable battery and tripod adapter.

Part no. 0560 8751



#### testo 875-2i

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, tripod adapter and headset.

Part no. 0563 0875 V2

#### testo 875-1i

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.

Part no. 0563 0875 V1

Accessories

#### testo 875-2i set

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, tripod adapter, headset, telephoto lens 9° x 7°, lens protection glass, spare battery and fast charger



Part no. 0563 0875 V3

Accessories		Part no. (Retrofit)	
*SuperResolution. Four times more measurement values for even more detailed analysis of the thermal images	S1	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	2)	
High temperature measurement up to 550 °C (testo 875-2i only )	G1	2)	
Humidity measurement with wireless humidity probe* (testo 875-2i only)	B1	2) 3)	
Emission adhesive tape. Adhesive tape, e.g. for reflective surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon$ = 0.95, temperature resistant to +250 °C			
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	

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

Freely selectable calibration points in the range -18 to +250 °C

ISO calibration certificates;

0520 0495

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

	l	l <b></b>	l <b></b>	
Infrared image output	testo 875-1	testo 875-1i	testo 875-2i	
	160 × 100	nivela / 200 v	0.40 mixele#	
Infrared resolution		pixels / 320 x		
Thermal sensitivity (NETD)	< 80 mK at +30 °C	< 50 mK at +30 °C		
Field of view/min. focus distance		1 m (Standard ns)	32° x 23° / 0.1 m (Tele: 9° x 7° / 0.5 m)	
Geometric resolution (IFOV)		/2.1 mrad# 3.3 mra (Tele: 1.0 mrad (Tele: 0.6		
Image refresh rate	9 Hz	33	Hz*	
Focus		manual		
Spectral range		7.5 to 14 µm		
Image output visual	I			
Image size / min. focus distance	_	- 640 x 480 pixels / 0.4 r		
Image presentation				
Image display	3.5" LCI	D with 320 x 24	10 pixels	
Display options	IR image only	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)			
Image presentation				
Measuring range	-20 to +100°C / 0 to +280 °C (switchable)	0 to +350 °C (switchable)		
Accuracy	±2 °C, ±2 % of m.v.	±2 °C, ±2 % of m.v. (±3 °C of m.v. at -30 to -22		
High temperature measurement – optional		_		
Accuracy	at		±3 % of m.v. at +350 to +550 °C	
Emissivity / reflected temperature	0.01 to 1 / manual			
Measuring functions				
Display of surface moisture distribution (using manual input)	-	-	<b>√</b>	
Humidity measurement with radio humidity probe (automatic measurement value transfer in real time)**	-	-	(√)	
Solar mode		<b>√</b>		
Analysis function	Centre point Hot/Cold Spot Recognition	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)	

*	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

Imager equipment				
Digital camera				
Power LEDs	_	,	<b>/</b>	
	_	-	✓	
Standard lens		32° x 23°	00 70	
Exchangeable lenses - optional	-	-	9° x 7°	
Laser (laser classification 635 nm, Class 2)***	-	✓		
Voice recording	_	_	wired headset	
Video streaming (via USB)	<b>√</b>			
Image storage				
File format	.bmt; export option in .bmp, .jpg, .png, .csv, .xls			
Storage device	SD card 2GB (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 to +50 °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			
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), Windows 8, interface USB 2.0			
Standards, tests, warrant	ty			
EU Directive	2004 / 108 / EC			
Warranty	2 years			

<sup>√</sup> included in delivery

<sup>(✓)</sup> optional

not available



### Overview of variants

Features	testo 875-1	testo 875-1i	testo 875-2i	testo 875-2i Set		
Infrared resolution	160	120 pixels / 320 x 240 pixels#				
Thermal sensitivity (NETD)	< 80 mK		< 50 mK			
Measuring range	-20 to +280 °C	-30 to +350 °C				
Image refresh rate	9 Hz		33 Hz*			
Lens 32° x 23°	✓	✓	<b>√</b>	<b>√</b>		
Exchangeable telephoto lens 9° x 7°	-	_	(√)	✓		
High temperature measurement up to 550 °C	-	-	(✓)	(✓)		
Integrated digital camera	-	<b>√</b>	✓	✓		
Integrated power LEDs	-	-	<b>√</b>	✓		
Voice recording using the headset	-	_	<b>√</b>	<b>√</b>		
Laser pointer**	-	<b>√</b>	<b>√</b>	<b>√</b>		
Display of surface moisture distribution (by manual input)	-	-	✓	✓		
Humidity measurement with wireless humidity probe*** (automatic measurement value transfer in real time)	-	-	(✓)	( \( \sqrt{)}		
Isotherm display in instrument	-	_	✓	✓		
Min/Max on Area calculation	-	_	<b>✓</b>	✓		
Auto Hot/Cold Spot Recognition	✓	<b>√</b>	<b>✓</b>	✓		
Solar mode	✓	✓	<b>√</b>	✓		
Lens protection glass	(√)	(√)	(√)	✓		
Additional battery	(√)	(√)	(√)	✓		
Fast battery charger	(√)	(√)	(√)	<b>√</b>		

√ included in delivery

(√) optional

not available

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

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