

We measure it.



Datasheet

Thermal imager

testo 870 – Thermography for those who get things done. Switch on and go.

Infrared resolution 160 x 120 pixels

SuperResolution technology to 320 x 240 pixels

Thermal sensitivity <100 mK

Fixed focus 34° lens

Automatic recognition of hot-cold spots

Integrated digital camera



°C

The thermal imager testo 870 was specially developed for your applications, in cooperation with heating constructors, building contractors, service engineers and facility management specialists – for example for detecting leakages, localizing cold bridges or visualizing overheated

connections. Thanks to its large display, high-quality detector, wide field of view and the uncomplicated operation, the thermal imager testo 870 allows you to work even better, faster and more productively.

Ordering data

testo 870-1

Thermal imager testo 870-1 including pro software, USB cable, mains unit, and Li ion rechargeable battery



Part no. 0560 8701

testo 870-2

Thermal imager testo 870-2 in a robust case including pro software, USB cable, mains unit, and Li ion rechargeable battery

Part no. 0560 8702

Accessories

	Part no.	
SuperResolution. Four times more measurement values for even more detailed analysis of the thermal images	0554 7806	
High-quality transport case	0516 8700	
Spare battery. Additional Lithium ion rechargeable battery for extending operating time.	0515 0100	
Battery charging station. Desktop charger for optimizing charging time.	0554 1103	
Emission adhesive tape. Adhesive tape, e.g. for reflective surfaces (roll, L.: 10 m, W.: 25 mm), $\varepsilon = 0.95$, temperature resistant to +250 °C	0554 0051	
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	

Technical data

	testo 870-1	testo 870-2
Infrared image output		
Infrared resolution	160 x 120 pixels	
Thermal sensitivity (NETD)	<100 mK at +30 °C	
Field of view/min. focus distance	34° x 26° / <0.5 m (Fixed focus)	
Geometric resolution (IFOV)	3.68 mrad	
SuperResolution (pixel / IFOV) - optional	320 x 240 pixels / 2.3 mrad	
Image refresh rate	9 Hz	
Focus	Fixed focus	
Spectral range	7.5 to 14 µm	
Image output visual		
Image size / min. focus distance	–	3.1 MP / 0.5 m
Image presentation		
Image display	3.5" LCD with 320 x 240 pixels	
Display options	IR image only	IR image / real image
Colour palettes	4 (iron, rainbow, cold-hot, grey)	
Image presentation		
Measuring range	-20 to +280 °C	
Accuracy	±2 °C, ±2 % of mv	
Emissivity / reflected temperature	0.01 to 1 / manual	
Measuring functions		
Analysis function	Centre point measurement, hot/cold spot measurement	
Imager equipment		
Digital camera	–	✓
Lens	34° x 26°	
JPEG storage	✓	
Full screen mode	✓	

	testo 870-1	testo 870-2
Image storage		
File format	.bmt and .jpg; export options in .bmp, .jpg, .png, .csv, .xls	
Memory	Internal storage (1.6 GB / >2000 images)	
Power supply		
Battery type	Li ion rechargeable battery exchangeable on site	
Operating time	4 hours	
Charging options	in instrument / charger (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	550 g	
Dimensions (L x W x H) in mm	219 x 96 x 95	
Housing	PC - ABS	
PC software		
System requirements	Windows XP (Service Pack 3), Windows Vista, Windows 7. Windows 8 Interface: USB 2.0	
Standards, tests, warranty		
EU Directive	2004 / 108 / EG	
Warranty	1 year	

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

Overview of variants

Features	testo 870-1	testo 870-2
Infrared resolution	160 x 120 pixels	
Thermal sensitivity (NETD)	<100 mK at +30 °C	
Temperature range	-20 to +280 °C	
Image refresh rate	9 Hz	
Lens 34° x 26°	✓	
SuperResolution	(✓)	
Integrated digital camera	-	✓
Auto Hot/Cold Spot Recognition	✓	
High-quality transport case	(✓)	✓
Additional battery	(✓)	
Battery charging station	(✓)	

✓ included in delivery

(✓) optional

- not available

We measure it.



Datasheet

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 < 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, 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

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

	Code ¹⁾ (First equipment testo 875i)	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 bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon = 0.95$, temperature resistant to +250 °C		0554 0051	
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 °C to +250 °C		0520 0495	

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

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

Technical data

	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 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) - optional	320 x 240 pixels / 2.1 mrad (Standard lens)		320 x 240 pixels / 2.1 mrad (Tele: 0.6 mrad)
Image refresh rate	9 Hz	33 Hz*	
Focus	manual		
Spectral range	8 to 14 µm		
Image output visual			
Image size / min. focus 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 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			
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 mv		±2 °C, ±2% of mv (±3% of mv at +350 to +500 °C)
Emissivity / reflected temperature	0,01 to 1 / manual		
Measuring functions			
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	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

	testo 875-1	testo 875-1i	testo 875-2i
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 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 +40 °C		
Storage temperature range	-30 to +60 °C		
Air humidity	+20 to +80% 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), interface USB 2.0		
Standards, tests, warranty			
EU Directive	2004 / 108 / EC		
Warranty	1 year		

✓ included in delivery

(✓) optional

– not available



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 marker**	-	✓	✓	✓
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

* 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, Indonesia

We measure it.



Datasheet

Thermal imager

**testo 876 – flexible thermography
in practical camcorder design**

Detector size 160 x 120 pixels

SuperResolution technology to 320 x 240 pixels

Thermal sensitivity < 80 mK

Flexible fold-out, rotatable display

Integrated digital camera

Exchangeable lenses

Special measurement mode for mould-risk areas



With the thermal imager testo 876, you keep the flexible rotatable fold-out display in view when taking thermographic measurements in any position, securely reaching every corner. This allows you to identify anomalies

and weak spots completely non-intrusively in buildings, mechanical components, photovoltaic systems or switching cabinets. For you, that means a better overview, providing more security when measuring thermographically.

Ordering data

testo 876

Thermal imager testo 876
in a robust case incl. pro software, SD
card, USB cable, lens cleaning cloth,
headset, mains unit, and Li ion
rechargeable battery



Part no. 0560 8761

testo 876 Set

Thermal imager testo 876 set in a
robust case incl. pro software, SD
card, USB cable, lens cleaning cloth,
headset, mains unit, Li ion
rechargeable battery, telephoto lens
9° x 7°, lens protection glass, spare
battery and fast charger



Part no. 0560 8762

Accessories

	Part no.	
SuperResolution. Four times more measurement values for even more detailed analysis of the thermal images	0554 7806	
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time.	0554 8851	
Additional battery. Additional lithium-ion rechargeable battery for extending the operating time.	0554 8852	
Lens protection glass. Special Germanium protective glass for optimum protection of the lens from dust and scratching	0554 8805	
Retrofit telephoto lens. Please contact our customer service	–	
Emission adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon = 0.95$, temperature resistant to +250 °C	0554 0051	
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 °C to +250 °C	0520 0495	

Technical data

Infrared image output	
Detector type	FPA 160 x 120 pixels, a.Si
Thermal sensitivity (NETD)	< 80 mK at +30 °C
Field of view/min. focus 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
Focus	manual and motor focus
Spectral range	8 to 14 µm
Image output visual	
Image size / min. focus distance	640 x 480 pixels / 0.4 m
Image presentation	
Image display	3.5" fold-out 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)
Measurement	
Temperature range	-20 to +100°C / 0 to +280 °C (switchable)
Accuracy	±2 °C, ±2% of mv
Emissivity / reflected temperature	0,01 to 1 / manual
Measuring functions	
Display of surface moisture distribution (using manual input)	✓
Solar mode	✓
Analysis function	Standard measu- rement (1-point) Hot/Cold Spot Recognition, Isotherms, Area measure- ment (Min-/Max on Area)

Imager equipment	
Digital camera	✓
Motor focus	✓
Standard lens	32° x 23°
Exchangeable lenses - optional	9° x 7°
Voice recording	wired headset
Video streaming (via USB)	✓
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 +40 °C
Storage temperature range	-30 to +60 °C
Air humidity	+20 to +80% 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	210 x 85 x 97
Tripod mounting	1/4" - 20UNC
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 / EC
Warranty	1 year

✓ Standard



Overview of variants

Features	testo 876	testo 876 Set
Detector	160 x 120 pixels	
Thermal sensitivity (NETD)	< 80 mK	
Temperature range	-20 to +280 °C	
Image refresh rate	9 Hz	
Lens 32° x 23°	✓	✓
Exchangeable telephoto lens 9° x 7°	(✓)	✓
SuperResolution	(✓)	(✓)
Integrated digital camera	✓	✓
Display of surface moisture distribution (by manual input)	✓	✓
Voice recording using the headset	✓	✓
Motor focus	✓	✓
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

We measure it.



Datasheet

Thermal imager

testo 882 – reliable thermography with high image resolution

Detector size 320 x 240 pixels

SuperResolution technology to 640 x 480 pixels

Thermal sensitivity $< 50 \text{ mK}$

Built-in digital camera with power LEDs

Special measurement mode for mould-risk areas

High temperature measurement up to $550 \text{ }^{\circ}\text{C}$



$^{\circ}\text{C}$

With the thermal imager testo 882, you test materials and components reliably and securely. The testo 882 – in ergonomic pistol design – stands out thanks to very high-resolution thermal images and a high thermal sensitivity. This allows you to identify every detail on the measurement

object completely non-intrusively, and detect anomalies and weak spots more easily even at a great distance. For you, that means: You see more and have more security when measuring thermographically!

Ordering data

testo 882

Thermal imager testo 882 in a robust case incl. pro software, Soft Case, carrying strap, SD card, USB cable, mains unit, Li ion rechargeable battery, tripod adapter, lens cleaning cloth, headset



Part no. 0560 0882

Accessories

	Code ¹⁾ (Initial equipment)	Part 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. Additional 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 charging time	E1	0554 8801	
High temperature measurement up to +500 °C	G1	²⁾	
Humidity measurement*	B1	^{2) 3)}	
Emission adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon = 0.95$, temperature resistant to +250 °C		0554 0051	
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 °C to +250 °C		0520 0495	

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

¹⁾ When ordering as initial equipment, you receive the accessories directly in the case. Example: testo 882 incl. lens protection glass and additional battery: Order no. 0560 0882 C1 D1

²⁾ Please contact our customer service

³⁾ Plus installation

Technical data

Infrared image output	
Detector type	FPA 320 x 240 pixels, a.Si
Thermal sensitivity (NETD)	< 60 mK at +30 °C
Field of view/min. focus distance	32° x 23° / 0.2 m
Geometric resolution (IFOV)	1.7 mrad
SuperResolution (pixel / IFOV) - optional	640 x 480 pixels / 1.1 mrad
Image refresh rate	33 Hz*
Focus	manual and motor focus
Spectral range	8 to 14 µm
Image output visual	
Image size / min. focus 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 / 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)
Measurement	
Temperature range	-20 to +100°C / 0 to +350 °C (switchable)
High temperature measurement - optional	+350 to +550 °C
Accuracy	±2 °C, ±2% of mv / (±3% of mv at +350 to +550 °C)
Emissivity / reflected temperature	0,01 to 1 / manual
Measuring functions	
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, 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	✓
Motor focus	✓
Standard lens	32° x 23°
Laser (laser classification 635 nm, Class 2)***	✓
Voice recording	wired headset
Video streaming (via USB)	✓
Image storage	
File format	.bmt; export option in .bmp, .jpg, .png, .csv, .xls
Storage device	SD card 2 GB (approx. 1.000 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 +40 °C
Storage temperature range	-30 to +60 °C
Air humidity	+20 to +80% 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), interface USB 2.0
Standards, tests, warranty	
EU Directive	2004 / 108 / EC
Warranty	1 year

✓ included in delivery

(✓) optional

Overview

Detector	320 x 240 pixels
Thermal sensitivity (NETD)	< 50 mK
Temperature range	-20 to +350 °C
Image refresh rate	33 Hz*
Lens 32° x 23°	✓
SuperResolution	(✓)
High temperature measurement up to 550 °C	(✓)
Integrated digital camera	✓
Integrated power LEDs	✓
Laser**	✓
Display of surface moisture distribution (by manual input)	✓
Humidity measurement with wireless humidity probe*** (automatic measurement value transfer in real time)	(✓)
Voice recording using the headset	✓
Motor focus	✓
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

* 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, Indonesia

Datasheet

Thermal imager

testo 885 – professional, versatile and precise thermography

Detector size: 320 x 240 pixels

SuperResolution technology with 640 x 480 pixels

Thermal sensitivity < 30 mK

Flexibility thanks to its rotating handle and rotating, fold-out display

Exchangeable lenses

Measurement mode for detecting mould-risk areas

High temperature measurement up to 1,200 °C

Panorama image assistant

SiteRecognition technology



The thermal imager testo 885 is the professional measuring instrument for the high-precision detection of anomalies and damage to building shells or interiors. The high-quality infrared measurement system means that energy losses or thermal bridges in building shells can be reliably detected, enabling comprehensive energy consultations to be carried out. Indoor leaks can be reliably located, without needing to

dismantle cable or pipeline systems. The intuitive testo 885 with its rotating handle, fold-out display and lots of helpful functions, such as panorama image assistant and auto-focus, makes it possible to carry out both quick on-site checks as well as comprehensive energy consultations with professional reports simply, reliably and professionally.

Ordering data

testo 885-1

Thermal imager testo 885-1 in a robust case incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, and Li ion rechargeable battery



Part no. 0563 0885 V1

testo 885-2

Thermal imager testo 885-2 in a robust case, incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, Li ion rechargeable battery, headset

Part no. 0563 0885 V2

testo 885-2 Set

Thermal imager testo 885-2 set in a robust case incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, Li ion rechargeable battery, headset, telephoto lens, lens bag, lens protection glass, spare battery and fast charger



Part no. 0563 0885 V3

Accessories

	Code ¹⁾ (Initial equipment)	Part 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 protection glass for optimum protection of the lens from dust and scratching	F1	0554 0289	
Additional battery. Additional lithium-ion rechargeable battery for extending the operating time.	G1	0554 8852	
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time.	H1	0554 8851	
High temperature measurement up to +1,200 °C	I1	²⁾	
Humidity measurement*	E1	^{2) 3)}	
Telephoto lens 11° x 9°	D1	²⁾	
Fully radiometric video measurement incl. logger function	J1	0554 8901	
Emission adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon = 0.95$, temperature resistant to +250 °C		0554 0051	
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 °C to +250 °C		0520 0495	

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

¹⁾ When ordering as initial equipment, you receive the accessories directly in the case. Example: testo 885-1 incl. lens protection glass and SuperResolution: Order no. 0563 0885 V1 F1 S1

²⁾ Please contact our customer service

³⁾ Plus installation

Technical data

	testo 885-1	testo 885-2
Infrared image output		
Detector type	FPA 320 x 240 pixels, a.Si	
Thermal sensitivity (NETD)	⋈ 30 mK at +30 °C	
Field of view/min. focus distance	30° x 23° / 0.1 m (Standard lens)	30° x 23° / 0.1 m (Tele: 11° x 9° / 0.5 m)
Geometric resolution (IFOV)	1,7 mrad (Standard lens)	1,7 mrad (Tele: 0.6 mrad)
SuperResolution (pixel / IFOV) - optional	640 x 480 pixels 1.06 mrad (standard lens), 0.38 mrad (telephoto lens)	640 x 480 pixels 1.06 mrad (standard lens), 0.38 mrad (telephoto lens)
Image refresh rate	33 Hz*	
Focus	auto / manual	
Spectral range	8 to 14 μm	
Image output visual		
Image size / min. focus distance	3.1 MP / 0.5 m	
Image presentation		
Image display	4.3" LCD touchscreen with 480 x 272 pixels	
Digital zoom	1 to 3 fold	
Display options	IR / real image	
Video output	USB 2.0	
Colour palettes	9 (iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo)	
Measurement		
Temperature range	-20 to +100°C / 0 to +350 °C (switchable)	
High temperature measurement - optional	–	+350 to +1,200 °C
Accuracy	±2 °C, ±2% of mv	
Emissivity / reflected temperature	0,01 to 1 / manual	
Transmission correction (atmosphere)	✓	
Measuring functions		
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 3 measurement points, Hot/Cold Spot Recognition, Area measurement (Min/Max & average), Isotherm and alarm values	

* 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

**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia

	testo 885-1	testo 885-2
Imager equipment		
Digital camera	✓	
Standard lens	30° x 23°	
Exchangeable lenses - optional	–	11° x 9°
SiteRecognition (measurement site recognition with image management)	–	✓
Panorama image assistant	✓	
Laser (laser classification 635 nm, Class 2)***	Laser marker	
Voice recording	–	Bluetooth****/ wired headset
Video measurement (via USB)	up to 3 measurement points	
Fully radiometric video measurement incl. logger function (via USB)	–	(✓)
Image storage		
File format single image	.bmt; export option in .bmp, .jpg, .png, .csv, .xls	
File format video (via USB)	.wmv, .mpeg-1	
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	4.5 hours	
Charging options	in instrument / in charger (optional)	
Mains operation	yes	
Ambient conditions		
Operating temperature range	-15 °C to +50 °C	
Storage temperature range	-30 to +60 °C	
Air humidity	+20 to +80% non-condensing	
Housing protection class (IEC 60529)	IP54	
Vibration (IEC 60068-2-6)	2G	
Physical specifications		
Weight	1.570 g	
Dimensions (L x W x H) in mm	253 x 132 x 111	
Tripod mounting	1/4" - 20UNC	
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 / EC	
Warranty	1 year	

✓ included in delivery

(✓) optional

– not available



Overview of variants

Features	testo 885-1	testo 885-2	testo 885-2 Set
Detector	320 x 240 pixels		
Thermal sensitivity (NETD)	< 30 mK		
Temperature range	-20 to +350 °C		
Image refresh rate	33 Hz*		
SuperResolution	(✓)	(✓)	(✓)
Exchangeable telephoto lens 11° x 9°	–	(✓)	✓
Auto focus	✓	✓	✓
High temperature measurement up to 1,200 °C	–	(✓)	(✓)
Panorama image assistant	✓	✓	✓
SiteRecognition (measurement site recognition with image management)	–	✓	✓
Laser marker**	✓	✓	✓
Display of surface moisture distribution (by manual input)	–	✓	✓
Humidity measurement with wireless humidity probe*** (automatic measurement value transfer in real time)	–	(✓)	(✓)
Fully radiometric video measurement incl. logger function	–	(✓)	(✓)
Voice recording using the headset****	–	✓	✓
Solar mode	✓	✓	✓
Lens protection glass	(✓)	(✓)	✓
Additional battery	(✓)	(✓)	✓
Fast battery charger	(✓)	(✓)	✓

✓ 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, Indonesia

**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia

We measure it.



Datasheet

Thermal imager

testo 890 – Thermography for the highest demands

Detector size 640 x 480 pixels

SuperResolution technology to 1280 x 960 pixels

Thermal sensitivity < 40 mK

Flexibility thanks to rotatable handle and fold-out, rotatable display

Exchangeable lenses

Special measurement mode for mould-risk areas

High temperature measurement up to 1,200 °C

Panorama image assistant

SiteRecognition technology

Fully radiometric video measurement



The thermal imager testo 890 offers outstanding image quality for the highest thermographic demands. Thanks to the high-quality infrared measurement system with a 640 x 480-pixel detector, thermal images can be recorded in megapixel quality (1280 x 960) using the SuperResolution technology. This means that even the smallest measurement objects such as electronic components or far

distant measurement objects, e.g. on industrial plants, can be safely recorded thermographically in best image quality and high resolution. Even thermal processes can be precisely analyzed over time using the fully radiometric video measurement: all measurement points of the thermal image are available, accurate to the pixel, at all times.

Ordering data

testo 890-1

Thermal imager testo 890-1 in a robust case incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, and Li ion rechargeable battery



Part no. 0563 0890 V1

testo 890-2

Thermal imager testo 890-2 in a robust case incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, Li ion rechargeable battery and headset

Part no. 0563 0890 V2

testo 890-2 Set

Thermal imager testo 890-2 set in a robust case incl. pro software, SD card, USB cable, carrying strap, lens cleaning cloth, mains unit, Li ion rechargeable battery, exchangeable lens, lens protection glass, spare battery, fast charger, headset, telephoto lens, lens bag



Part no. 0563 0890 V3

Accessories

	Code ¹⁾ (Initial equipment)	Part 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 protection glass for optimum protection of the lens from dust and scratching	F1	0554 0289	
Additional battery. Additional lithium-ion rechargeable battery for extending the operating time.	G1	0554 8852	
Fast battery charger. Desktop charging station for two rechargeable batteries for the optimization of the charging time.	H1	0554 8851	
High temperature measurement up to +1,200 °C	I1	²⁾	
Humidity measurement*	E1	^{2) 3)}	
Telephoto lens 15° x 11°	D1	²⁾	
Fully radiometric video measurement incl. logger function	J1	0554 8901	
Emission adhesive tape. Adhesive tape, e.g. for bare surfaces (roll, L.: 10 m, W.: 25 mm), $\epsilon = 0.95$, temperature resistant to +250 °C		0554 0051	
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 °C to +250 °C		0520 0495	

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

¹⁾ When ordering as initial equipment, you receive the accessories directly in the case. Example: testo 890-1 incl. lens protection glass and SuperResolution: Order no. 0563 0890 V1 F1S1

²⁾ Please contact our customer service

³⁾ Plus installation

Technical data

	testo 890-1	testo 890-2
Infrared image output		
Detector type	FPA 640 x 480 pixels, a.Si	
Thermal sensitivity (NETD)	⋈ 40 mK at +30 °C	
Field of view/min. focus distance	42° x 32° / 0.1 m (Standard lens)	42° x 32° / 0.1 m (Tele: 15° x 11° / 0.5 m)
Geometric resolution (IFOV)	1,13 mrad (Standard lens)	1,13 mrad (Tele: 0.42 mrad)
SuperResolution (pixel / IFOV) - optional	1280 x 960 pixels / 0.71 mrad (Standard lens)	1280 x 960 pixels / 0.71 mrad (Tele: 0.26 mrad)
Image refresh rate	33 Hz*	
Focus	auto / manual	
Spectral range	8 to 14 µm	
Image output visual		
Image size / min. focus distance	3.1 MP / 0.5 m	
Image presentation		
Image display	4.3" LCD touchscreen with 480 x 272 pixels	
Digital zoom	1 to 3 fold	
Display options	IR / real image	
Video output	USB 2.0	
Colour palettes	8 (iron, rainbow, cold-hot, blue-red, grey, inverted grey, sepia, Testo)	
Measurement		
Temperature range	-20 to +100°C / 0 to +350 °C (switchable)	
High temperature measurement - optional	–	+350 to +1,200 °C
Accuracy	±2 °C, ±2% of mv	
Emissivity / reflected temperature	0,01 to 1 / manual	
Transmission correction (atmosphere)	✓	
Measuring functions		
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 3 measurement points, Hot/Cold Spot Recognition, Area measurement (Min/Max & average), Isotherm and alarm values	

* 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

**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia

	testo 890-1	testo 890-2
Imager equipment		
Digital camera	✓	
Standard lens	42° x 32°	
Exchangeable lenses - optional	–	15° x 11°
SiteRecognition (measurement site recognition with image management)	–	✓
Panorama image assistant	✓	
Laser (laser classification 635 nm, Class 2)***	Laser marker	
Voice recording	–	Bluetooth****/ wired headset
Video measurement (via USB)	up to 3 measurement points	
Fully radiometric video measurement incl. logger function (via USB)	–	(✓)
Image storage		
File format single image	.bmt; export option in .bmp, .jpg, .png, .csv, .xls	
File format video (via USB)	.wmv, .mpeg-1	.wmv, .mpeg-1 / Testo format (fully radiometric video)
Storage device	SD card 2 GB (800-1.000 images)	
Power supply		
Battery type	Fast-charging, Li-ion battery can be changed on-site	
Operating time	4.5 hours	
Charging options	in instrument / in charger (optional)	
Mains operation	yes	
Ambient conditions		
Operating temperature range	-15 °C to +50 °C	
Storage temperature range	-30 to +60 °C	
Air humidity	+20 to +80% non-condensing	
Housing protection class (IEC 60529)	IP54	
Vibration (IEC 60068-2-6)	2G	
Physical specifications		
Weight	1.630 g	
Dimensions (L x W x H) in mm	253 x 132 x 111	
Tripod mounting	1/4" - 20UNC	
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 / EC	
Warranty	1 year	

✓ included in delivery

(✓) optional

– not available



Overview of variants

Features	testo 890-1	testo 890-2	testo 890-2 Set
Detector	640 x 480 pixels		
Thermal sensitivity (NETD)	< 40 mK		
Temperature range	-20 to +350 °C		
Image refresh rate	33 Hz*		
SuperResolution	(✓)	(✓)	(✓)
Exchangeable telephoto lens 15° x 11°	–	(✓)	✓
Auto focus	✓	✓	✓
High temperature measurement up to 1,200 °C	–	(✓)	(✓)
Panorama image assistant	✓	✓	✓
SiteRecognition (measurement site recognition with image management)	–	✓	✓
Laser marker**	✓	✓	✓
Display of surface moisture distribution (by manual input)	–	✓	✓
Humidity measurement with wireless humidity probe*** (automatic measurement value transfer in real time)	–	(✓)	(✓)
Voice recording using the headset****	–	✓	✓
Fully radiometric video measurement incl. logger function	–	(✓)	(✓)
Solar mode	✓	✓	✓
Lens protection glass	(✓)	(✓)	✓
Additional battery	(✓)	(✓)	✓
Fast battery charger	(✓)	(✓)	✓

✓ 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, Indonesia

**** Bluetooth only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Japan, Russia, Ukraine, India, Australia