

# Thermal imager

## testo 885 – professional, versatile and precise thermography

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Infrared resolution 320 x 240 pixels

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SuperResolution technology with 640 x 480 pixels

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Thermal sensitivity < 30 mK

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

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Exchangeable lenses

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Measurement mode for detecting mould-risk areas

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High temperature measurement up to 1200 °C

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Panorama image assistant

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SiteRecognition technology

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The thermal imager testo 885 is the professional measuring instrument for the high-precision detection of anomalies/hot spots in HV and EHV Switch yards and Transmission lines. This can also be effectively used to find out 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.

Due to its precision measurement capability, it can also be used in Medical Research applications. The intuitive testo 885 with its rotating handle, fold-out display and lots of helpful functions, such as site recognition, 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 thermal imagers	Part no.
testo 885 thermal imager with one lens (choice between 30° standard lens, 25° lens and 11° telephoto lens) in a robust case, including professional software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li-ion rechargeable battery and headset	0563 0885 X1
Thermal imager testo 885 with super-telephoto lens in a robust case, including pro software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li ion rech. battery and headset	0563 0885 X4

### testo 885 sets with your selection of lenses

Complete kits in a robust case, each including professional software, SD card, USB cable, carrying strap, lens-cleaning cloth, mains unit, Li-ion rechargeable battery, headset, lens case, lens protection glass, additional rechargeable battery and fast charging station. Choice between 30° standard lens, 25° lens and/or 11° telephoto lens.



	Part no.
testo 885 set with two lenses – see above for further set components	0563 0885 X2
testo 885 set with three lenses – see above for further set components	0563 0885 X3
testo 885 set with SuperTele and one lens – see above for further set components	0563 0885 X5
testo 885 set with SuperTele and two lenses – see above for further set components	0563 0885 X6

## Accessories

	Code <sup>1)</sup> (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	<sup>2)</sup>
Humidity measurement <sup>3)</sup>	E1	<sup>2)</sup>
Telephoto lens 11° x 9°	D1	<sup>2)</sup>
25° Lens	O1	<sup>2)</sup>
Super-telephoto lens 5° x 3.7°	T2	<sup>2)</sup>
Process analysis package: image sequence capturing in instrument and fully radiometric video measurement	V1	0554 8902
FeverDetection	J1	<sup>2)</sup>
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		0554 0051
ISO calibration certificates; Calibration points at 0 °C, +25 °C, +50 °C		0520 0489 <sup>4)</sup>
ISO calibration certificates; Calibration points at 0 °C, +100 °C, +200 °C		0520 0490 <sup>4)</sup>
ISO calibration certificates; Freely selectable calibration points in the range -18 to +250 °C		0520 0495 <sup>4)</sup>

<sup>1)</sup> When ordering as first equipment, you receive the accessories directly in the case.

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

<sup>3)</sup> Wireless humidity probes only in the EU, Norway, Switzerland, USA, Canada, Colombia, Turkey, Brazil, Chile, Mexico, New Zealand, Indonesia.

<sup>4)</sup> Per lens

<sup>5)</sup> Plus installation

## Technical data

Infrared image output	
Infrared resolution	320 x 240 pixels
Thermal sensitivity (NETD)	< 30 mK at +30 °C
Field of view/min. focus distance (Lens version)	30° x 23° / 0.1 m (Standard) 25° x 19° / 0.2 m (25° Lens) 11° x 9° / 0.5 m (Telephoto) 5° x 3.7° / 2 m (Super-telephoto)
Geometric resolution (IFOV) (Lens version)	1.7 mrad (Standard) 1.36 mrad (25° Lens) 0.6 mrad (Telephoto) 0.27 mrad (Super-telephoto)
SuperResolution (pixel / IFOV) (Lens version)	640 x 480 pixels / 1.06 mrad (Standard) 640 x 480 pixels / 0.85 mrad (25° Lens) 640 x 480 pixels / 0.38 mrad (Telephoto) 640 x 480 pixels / 0.17 mrad (Super-telephoto)
Image refresh rate	9 Hz/ 33 Hz*
Focus	auto and manual
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	4.3" LCD colour touchscreen display with 480 x 272 pixels
Digital zoom	4X - in steps
Display options	IR / real image
Video output	USB 2.0, Micro HDMI
Colour palettes	9 (iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo)
Measurement	
Measuring range	-30 to +100 °C / 0 to +350 °C (switchable) 0 to +650 °C (switchable)
Accuracy	±2 °C, ±2 % of m.v. (±3 °C of m.v. at -30 to -22 °C)
High temperature measurement - optional Accuracy	+350 to +1200 °C (not in connection with the telephoto lens) ±2 °C, ±2 % of m.v.
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 10 measurement points, Hot/Cold Spot Recognition, up to 5 x area measurement (min/max & average), Isotherm and alarm values
Imager equipment	
Digital camera with Power LEDs	✓
Lens version	30° x 23° (Standard) 25° x 19° (25° Lens) 11° x 9° (Telephoto) 5° x 3.7° (Super-telephoto)
SiteRecognition (measurement site recognition with image management)	✓
Panorama image assistant	✓
Laser (laser classification 635 nm, Class 2)***	Laser marker
Voice recording	Bluetooth****, for 60 Sec., per image
Video measurement (via USB)	up to 3 measurement points
Process analysis package: image sequence capturing in instrument and fully radiometric video measurement	(✓) Auto Capture
FeverDetection	(✓)
Interface	LabVIEW, interface description download on the Testo homepage
Image storage	
File format single image	.bmt; Exportmöglichkeit in .bmp, .jpg, .png, .csv, .xls
File format video (via USB)	.wmv, .mpeg-1
Storage device	SD cart 2GB (approx. 1500 - 2000 images) (Optional: Available 16GB wi-fi SD card)
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	✓
Ambient conditions	
Operating temperature range	-15 °C to +50 °C
Storage temperature range	-30 to +60 °C
Air humidity	10 to 90 % RH non-condensing
Housing protection class (IEC 60529)	IP54
Vibration (IEC 60068-2-6)	2G
Physical specifications	
Weight	1570 g
Dimensions (L x W x H)	253 x 132 x 111 mm
Tripod mounting	1/4" - 20UNC
Housing	ABS
PC software	
System requirements	Windows 10, Windows Vista, Windows 7 (Service Pack 1), Windows 8, interface USB 2.0
Standards, tests	
EU Directive	2004 / 108 / EC
Warranty	2 years

\* 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

## Overview of variants

Features	testo 885	testo 885 Set
Infrared resolution	320 x 240 pixels	
Thermal sensitivity (NETD)	< 30 mK	
Measuring range	-30 to +650 °C	
Image refresh rate	9 Hz/ 33 Hz*	
SuperResolution	✓	✓
25° x 19° Lens	(✓)	(✓)
Telephoto lens 11° x 9° *****	(✓)	✓
Super-telephoto lens 5° x 3.7° *****	(✓)	✓
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)	(✓)	(✓)
HDMI interface	✓	✓
FeverDetection	(✓)	(✓)
Process analysis package: image sequence capturing in instrument and fully radiometric video measurement	(✓)	(✓)
Voice recording using the headset****	✓	✓
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, 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  
 \*\*\*\*\* depending on the selected set