

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 (testo 870-2)



The testo 870 thermal imager was specifically developed in collaboration with experts from heating engineering, the building trade, maintenance and facility management to meet your requirements – for example to detect leaks, to pinpoint thermal bridges or to visualize overheated connections.

Its large display, high-quality detector, wide field of view and simple operation will enable you to work better, quicker and more productively. testo SuperResolution technology also increases the resolution of the testo 870 from 160 x 120 pixels in the software testo IRSoft to 320 x 240 pixels. That's four times as many readings, enabling you to spot even the smallest irregularities.

Ordering data

testo 870-1

Thermal imager testo 870-1 with integrated testo SuperResolution, including professional software, USB cable, mains unit and rechargeable Li-ion battery

Part no. 0560 8701



testo 870-2

Thermal imager testo 870-2 in a robust case with integrated testo SuperResolution and digital camera, including professional software, USB cable, mains unit and rechargeable Li-ion battery

Part no. 0560 8702



Accessories

	Part no.
High-quality transport case	0516 8700
Holster case	0554 7808
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), $\epsilon = 0.95$, 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 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)	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 m.v.	
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	2 years	

- ✓ 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

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Subject to change without notice.

