

We measure it. **testo**



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 5100 |
| 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) | |
| Measurement | | |
| 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.

