

# Thermal imager

**testo 860i – wireless thermal imager for smartphones with easy operation and display via the testo Smart App**

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Simple and fast determination of Delta T in the thermal image using application-specific DeltaHeat and DeltaCool measurement functions

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Razor-sharp thermal images thanks to high infrared resolution (256 x 192 pixels)

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Everything is simple with the testo Smart App: easy operation and effortless documentation with on-site emailing

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Flexible handling through wireless use or one-handed operation directly attached to a smartphone

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High suitability for everyday use and robustness with IP54 and fall protection up to 1.5 m

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**testo Smart App**  
for free download



The new wireless thermal imager for smartphones testo 860i with its simple operation and display in the testo Smart App making it the perfect choice for quick spot checks in the HVAC trade, maintenance, buildings and many other applications.

testo 860i enables quick and easy determination of Delta T (differential temperature) in the thermal image using application-specific measurement functions: **DeltaHeat** for quick determination of the spread of flow and return temperatures on radiators, **DeltaCool** for quickly establishing the differential temperature in refrigeration and air conditioning systems.

The **humidity mode** function helps to assess the risk of mould indoors. The thermography measurement function shows hotspots and Delta T quickly and easily during maintenance.

The testo Smart App is used to operate testo 860i, display the thermal image and differential temperature, and document – it's simple, quick and smart. testo 860i is versatile and can be used one-handed either directly attached to a smartphone or tablet, or separately. What's more, its high suitability for everyday use, robustness and rechargeable lithium battery with a long operating time make the testo 860i a reliable companion.

## Order data

### testo 860i

Wireless thermal imager for smartphones with simple operation and display via the testo Smart App, including a USB-C cable and cardboard packaging

Order no. 0560 0860



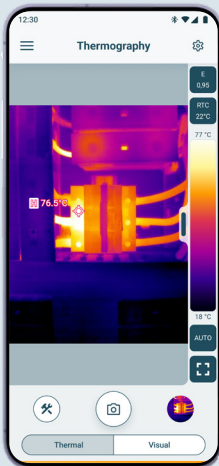
### testo 860i kit

Wireless thermal imager for smartphones with simple operation and display via the testo Smart App, including a bag for safe transport, a USB-C cable and cardboard packaging

Order no. 0563 0860



## Always in the picture – with the testo Smart App



### The testo Smart App makes sharp thermal images easier than ever:

- Fast connection of testo 860i to smartphones or tablets
- Clear display of thermal images and simple processing in the thermography measurement program
- Three application-specific optimised measuring programs: DeltaHeat for quickly determining the spread in flow and return temperatures on radiators, DeltaCool for determining the difference in refrigeration and air conditioning systems and humidity mode for assessing the risk of mould in buildings
- Storage of thermal images
- Integration of readings from Testo clamp meter, thermohygrometer and other Testo measuring instruments connected to the testo Smart App, e.g. Smart Probes and manifolds
- Documentation by directly sharing the images or creating and sending a report as a PDF



### The testo Smart App is your universal app for all applications:

#### HVAC/R systems

Refrigeration, air conditioning and ventilation systems, heating systems and heat pumps

#### Industry services and facility management

Monitoring of temperature, ambient and indoor climate

#### Food safety (HACCP)

Checking of frying oil quality and temperature

### Your advantages for all applications:

- Compatible with many Testo measuring instruments
- Measurement programs for many applications
- Configuration, execution and monitoring of measurements
- Storage of measurement, measuring location and customer data
- Documentation including the creation and sending of the measurement report
- Useful premium add-on functions available (subject to charge)

# Technical data

| Infrared image output                                   |                                                                                                                             |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Infrared resolution                                     | 256 x 192 pixels                                                                                                            |
| Thermal sensitivity (NETD)                              | 50 mK                                                                                                                       |
| Field of view (VFOV/HFOV)/ min. focusing distance       | 48° x 36° / 0.3 m                                                                                                           |
| Geometric resolution (IFOV)                             | 3.3 mrad                                                                                                                    |
| Image refresh rate                                      | 9 Hz                                                                                                                        |
| Focus                                                   | Fixed                                                                                                                       |
| Spectral range                                          | 8 to 14 µm                                                                                                                  |
| Visual image output                                     |                                                                                                                             |
| Image size / min. focusing distance                     | 640 x 480 pixels / 0.4 m                                                                                                    |
| Measurement                                             |                                                                                                                             |
| Measuring range                                         | -20 to +350 °C                                                                                                              |
| Accuracy                                                | ±3 °C or ±3 % of m.v.<br>(at ambient temperature of -10... +40 °C and scene temperature of 0... +150 °C or +100... +350 °C) |
| Emissivity/reflected temperature adjustment             | 0.01 to 1 / manual (via testo Smart App)                                                                                    |
| Measurement functions (in the testo Smart App)          |                                                                                                                             |
| Analysis functions                                      | Hot/cold spots, Delta T, up to 10 selectable individual measuring points, area measurement (min./max. on area)              |
| Application-specific measurement functions              | DeltaHeat, DeltaCool, humidity mode                                                                                         |
| Humidity mode – manual                                  | Yes                                                                                                                         |
| Humidity measurement with humidity measuring instrument | Automatic transfer of the optional testo 605i or testo 625 thermohygrometer readings via Bluetooth to the testo Smart App   |
| Electrical mode – manual                                | Input of current, voltage or power                                                                                          |
| Electrical measurement with clamp meter                 | Automatic reading transfer of the optional testo 770-3 clamp meter via Bluetooth to the testo Smart App                     |
| Image presentation (in the testo Smart App)             |                                                                                                                             |
| Display options                                         | IR image, real image (overlay in IRSOft possible)                                                                           |
| Fullscreen mode                                         | Yes                                                                                                                         |
| Colour palettes                                         | Iron, rainbow, rainbow HC, cold-hot, blue-red, grey, inverted grey, sepia, Testo, iron HT, humidity palette                 |
| Digital zoom                                            | Yes                                                                                                                         |
| General app functions                                   |                                                                                                                             |
| File format                                             | Share saved images as .bmt (for editing in IRSOft), .jpg, and .csv files with the testo Smart App                           |
| Image storage                                           | On a mobile device                                                                                                          |
| Remote-controlled operation                             | Up to 10 m from the mobile device (via WLAN)                                                                                |
| Power supply                                            |                                                                                                                             |
| Battery type                                            | Integrated Li-ion rechargeable battery                                                                                      |

| Battery life                         | 2 hours                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Charging interface                   | USB-C                                                                                                          |
| Charging time                        | Approx. 90 min<br>15-min charge of an empty battery equals 30 min of operating time                            |
| Ambient conditions                   |                                                                                                                |
| Operating temperature range          | -10 to +50 °C                                                                                                  |
| Storage temperature range            | -20 to +70 °C                                                                                                  |
| Air humidity                         | 5 to 95 %RH, non-condensing                                                                                    |
| Housing protection class (IEC 60529) | IP54                                                                                                           |
| Impact resistance test               | 1.5 m                                                                                                          |
| Vibration                            | IEC 60068-2-6                                                                                                  |
| Physical features                    |                                                                                                                |
| Weight                               | 195 g                                                                                                          |
| Dimensions                           | 165 x 45 x 38 mm                                                                                               |
| Mobile device attachment             | Clip span: min. 134 mm, max. 190 mm and device depth up to max. 12 mm                                          |
| Tripod socket                        | ¼" UNC thread                                                                                                  |
| Compatibility                        |                                                                                                                |
| testo Smart App                      | Requires iOS 17 or later/Android 14 or later<br>Requires mobile terminal device with Bluetooth 4.0             |
| PC software testo IRSOft             | Windows 11, Windows 10                                                                                         |
| Data interface                       |                                                                                                                |
| WLAN*                                | Communication with the testo Smart App;<br>WLAN: IEEE 802.11a/n/ac                                             |
| Bluetooth*                           | Peer-to-peer advertising for fast connection set-up                                                            |
| Standards, tests                     |                                                                                                                |
| Standards                            | Declaration of conformity:<br>See <a href="http://www.testo.com/eu-conformity">www.testo.com/eu-conformity</a> |

\* An overview of the radio authorisations in the different countries can be found in the download section of the testo 860i product page in the "OnePager testo 860i" document.