



BOSCH



BOSCH TEMPERATURE MEASURING TOOLS.

Make the invisible visible – in no time, every time.

www.bosch-professional.com

It's in your hands. Bosch Professional.

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THE BOSCH THERMAL TRIO.

Providing maximum assistance in your everyday work.

Using our thermal imaging cameras and infrared thermometers, you can uncover potential weak points with no unnecessary hassle. All it takes is a simple, intuitively operated process that requires no contact with the object being measured. Thanks to digital linking, you can also offer your customers direct insights and precise documentation via the Bosch Thermal App and the GTC Transfer Software – providing a transparent basis for quotes or any other necessary steps. Thanks to this, paperwork has become a thing of the past.

► GTC 400 C Professional GTC 600 C Professional

The thermal imaging cameras offer a precise overview of differences in temperature, which are presented in an easily understandable manner via a colour-coded representation. They are perfectly complemented by the free GTC Transfer Software, which allows you to edit and document thermal images in greater detail.

► GIS 1000 C PROFESSIONAL

The infrared thermometer measures circular areas precisely and provides you with additional information on aspects such as relative humidity and ambient temperature.

PRODUCT COMPARISON.

Discover the world of Bosch thermal imaging cameras and infrared thermometers and how you can make your daily work quicker and easier.



GTC 600 C Professional

The GTC 600 C Professional thermal imaging camera can be used for larger temperature ranges and provides images in an even greater resolution thanks to its infrared sensor.

- ▶ Assignment of additional information via voice note
- ▶ More applications due to more detailed image representation
- ▶ For use under toughest conditions with drop resistance up to 2 m as well as meeting IP54 splash water and dust protection standards class of IP54



600
SAVED IMAGES
CAPACITY



GTC 400 C Professional

The clever Bosch GTC 400 C Professional thermal imaging camera shows you where potential problems may occur. Smart functions such as the picture-in-picture representation make it easier for you to pinpoint information in the thermal image.

- ▶ Immediate visualisation of temperature differences
- ▶ Picture-in-picture technology overlays thermal and real images
- ▶ Fast exchange of data and easy documentation via Bosch Thermal App



500
SAVED IMAGES
CAPACITY



GIS 1000 C Professional

In addition to the temperature of objects, the GIS 1000 C Professional infrared thermometer can also measure the ambient temperature and relative humidity – and supplements this with detailed information in a broad measuring range.

- ▶ The specialist in precision
- ▶ Analyses dew points and thermal bridges
- ▶ Highly accurate and dependable information



>200
SAVED IMAGES
CAPACITY

APPLICATION RANGES.

Find out more about the many potential applications of the thermal measuring tools from Bosch Professional.

The Bosch thermal trio ensures that you maintain a thorough overview in any situation, and that you can correctly identify problems and draw appropriate conclusions. Whether used in electrical installation, plumbing, heating and air conditioning technology, window construction and interior finishing work or vehicle repair: The combination of the GIS 1000 C Professional infrared thermometer with the GTC thermal imaging cameras makes for an unbeatable team.

Learn more: www.bosch-professional.com/thermal

Electrics

Identify where measures may need to be taken in good time – with the Bosch temperature measuring tools.

- ▶ Monitoring of fuse boxes
- ▶ Inspection of cable connections
- ▶ Inspection of electrical components



Window construction

Increase energy efficiency – with the Bosch temperature measuring tools.

- ▶ Locating of insulation faults and thermal bridges
- ▶ Locating of areas with penetrating water or that are not leak-tight
- ▶ Recording of before and after comparisons for customers



Plumbing, heating and air conditioning technology

Simply see more in plumbing, heating and air conditioning technology – with the Bosch temperature measuring tools.

- ▶ Inspection of underfloor heating and pipe routing
- ▶ Locating of heating pipes and leaks
- ▶ Examination of radiators
- ▶ Monitoring of air conditioning systems

Interior finishing work

An ideal overview and clear documentation – with the Bosch thermal measuring tools.

- ▶ Drywall construction (e.g. locating of pipes to prevent them from being drilled into)
- ▶ Painting and plastering work (e.g. locating damp areas on walls)
- ▶ Renovation and maintenance (e.g. pointing out energy losses and identification of where there is a need for insulation)
- ▶ The property market (e.g. creating easy-to-understand documentation)



Vehicles

Quickly uncover potential faults – with the Bosch thermal measuring tools.

- ▶ Inspection of front and rear window pane heating
- ▶ Monitoring of seat heating
- ▶ Checking of air conditioning systems
- ▶ Monitoring of vehicle fuse boxes

SIX TIPS FOR CARRYING OUT AN INSPECTION.

- 1 Adjusting the colour palette.** The GTC models include features such as a variety of different options for the colour scale. For smaller temperature differences, it is recommended to use a high-contrast colour palette (e.g. the rainbow scale), whilst larger variations in temperature make a low-contrast scale (e.g. iron colours) the more intuitive option.
- 2 Adjusting the temperature scale.** In order to configure the thermal image so that it is rich in contrast and consequently provides conclusive information, the scale needs to be adapted under certain circumstances. To this end, our thermal imaging cameras offer a practical lock function that allows you to optimise this scale quickly and easily. Alternatively, this can be implemented in manual mode.
- 3 Take the time of measurement into consideration.** Wherever possible, you should measure objects only when they are dry, since rain and other forms of precipitation can influence the surface temperature. Similarly, measurement of objects that have been significantly exposed to sunlight should also be avoided. In most cases where thermal imaging of buildings is required, autumn and winter tend to be the ideal seasons for taking measurements. At these times of year, the temperature difference between the interior and the exterior is great enough for problem areas to be located effectively.





- 4 Keeping to a suitable distance.** In order to guarantee thermal images of high quality, you should keep to a minimum distance of 30 cm when taking a measurement. A two-step procedure has proven to be effective in this regard. For instance, a preliminary inspection from a farther distance will provide a good initial overview. A second image capture – this time at a closer range – will then provide more detailed information and be significantly more reliable.
- 5 Dealing with reflections.** For excessively reflective surfaces, such as bare metal, we recommend the use of matt black adhesive strips or special sprays. If you apply these to the reflective object, you can take its temperature after a short waiting period and reliably determine this on the basis of a high emissivity. The influence of the reflection of one's own body heat can also be minimised by measuring at a slightly slanted angle.
- 6 Taking the emissivity into consideration.** If you intend to determine a precise value in degrees Celsius (°C), you should account for the emissivity and the reflected temperature in every case. This way, you can prevent measured values from being rendered incorrectly as a result of strong reflections. You can determine the emissivity from the preset materials in the tool or estimate it on the basis of the surface quality.

THE RIGHT TOOL FOR YOUR APPLICATION.



GTC 600 C GTC 400 C GIS 1000 C

General Information			
Temperature distribution	+	+	
Surface temperature high emissivity	+	+	+
Surface temperature low emissivity (e.g. bare metal)			+*
Liquid surface temperature	+	+	+
Liquid temperature			+*
Gas temperature (e.g. air flow)			+*
Electrics			
Regular inspection and preventive maintenance (finding and documenting abnormalities)	++	+	
Fault detection and inspection of electrical components (e.g. cable connections, fuses)	++	+	
Inspection of larger electrical components (e.g. motors)	++	++	+
Plumbing, heating and air conditioning technology			
Inspection of underfloor heating and pipe routing	+	+	
Locating of heating pipes and leaks	+	+	
Examination of radiators	+	+	+
Monitoring of air conditioning systems	+	+	+

Window construction			
Search for thermal bridges	+	+	++
Locating leakages and check insulation	++	+	
Documentation of before and after comparisons for customers	++	++	+
Renovation work			
Prevent drilling into hot water pipes (e.g. drywall construction)	+	+	
Locating damp areas on walls (e.g. painting and plastering work)	+	+	+
Pointing out energy losses and identification of insulation need (e.g. renovation and maintenance)	++	+	+
Creating easy-to-understand documentation (e.g. property market)	++	+	+
Automotive work			
Inspection of comfort heating systems (e.g. windshields, mirrors, seats)	+	+	
Monitoring break discs			+*
Checking of air conditioning systems	+	+	+
Monitoring of electrical components	+	+	
Inspection of the engine compartment	+	+	
Examination of the exhaust system	+	+	
Checking of the coolant cycle	+	+	
Agriculture			
Thermal imaging on animals (for veterinary usage please check country-specific regulations)	+	+	
Check machinery (e.g. prevent overheating)	+	+	+
Beekeeping	+	+	
Check temperature in silage	+	+	

* with external thermocouple (type K) + tool entirely suitable ++ extra features make the application even easier
 More information online: www.bosch-professional.com/thermal