



## Thermography

In this technique, a camera creates infrared images and conducts temperature measurements to “see” and measure the thermal energy radiated by an object, as a result of which a thermal image is obtained.

### Your tailor-made solution

Thermal energy or infrared radiation is light that cannot be seen because the wavelength of the same is too long for the human eye to see. It is that part of the electromagnetic spectrum that we perceive as heat. Everything with a heat exceeding the absolute zero point, has an infrared radiation. Even very cold objects like ice cubes have infrared radiation. The higher the temperature of the object, the greater the infrared radiation emitted. Thanks to infrared techniques, we can observe what our eyes cannot see..

Infrared cameras make it possible to measure temperatures very accurately and without contact. The measurements are made without any time delay and temperature patterns can also be seen.

### Your result

Hand over the inspection of your electrical installation to a Vincotte specialist. Safety, reliability and comfort are the key words for the proper operation of an electrical installation.

Thermography is an ‘ON-STREAM’ technique, in other words, the installations continue in operation during the inspection.

It is an extremely safe technique since there is no contact with the installation components and it has technical and cost-saving advantages:

- prevention of power failure, which benefits production;
- prevention of fire;
- lowering maintenance costs;
- increasing the life of an equipment, due to adjustments made;
- low material costs since interventions can be made before a defect destroys a component of an equipment.

There are various areas of application:

- electrical installations (uneven loads, poor connections, etc.);
- detection of leakages (water, heating, etc.);
- detection of thermal contamination in rivers;
- thermography by helicopter (HV lines, buildings, etc.);
- checking thermal insulation (buildings, cold rooms, ovens, freezers, boilers, etc.)
- detecting energy losses
- process inspection
- inspection of solar panels

Vincotte is accredited by BELAC as per the NBN EN ISO/IEC 17020 standard, for the execution of thermographic inspections. An expert team of operators equipped with sophisticated equipment can issue an electronic report on the spot after conducting an inspection.

Examples:

- Checks on electrical equipment
- Mechanical inspections
- Checking insulation, steam pipelines, etc.
- Buildings
- Leak detection of central heating systems and underfloor heating

## Please note

General Regulations for Electrical Installations (AREI):

- Art. 272b Inspection visit of some high voltage overhead lines via infrared thermography
- Art. 9 Electrical installations Electrical installations must be made of safe electrical equipment according to their intended use, and all their constituent parts must be suitably maintained as prescribed by these regulations and as per the rules of good practices, so that if they are properly maintained as required, and are used as per their intended purpose, there will be no threat to the safety of persons or of property. Repairs, additions and modifications to electrical installations must be made using safe equipment as prescribed by these regulations and in accordance with the rules of good practices.
- KB (Royal Decree) of 04/12/2012: help in drawing up risk analysis

Assuralia: Insurers' regulations relating to electrical installations (annual thermographic inspection is mandatory) Atex 137 Directive: Royal Decree relating to the welfare of employees who can be exposed to hazards due to explosive atmospheres. Detecting explosive sources by thermography:

- steam pipelines, process temperatures, mechanical heating, etc.

## In which situation?

This technique is of interest particularly to private individuals, industries, SMEs, tertiary sector as well as for installers.