



FENIX AIR

THERMOGRAPHIC SURVEYS

Thermography is a technique used for detecting the temperature of an object in the infrared spectrum, using special thermal cameras.

There are two types of thermal cameras: radiometric ones, which us give the possibility to immediately obtain a readable result, in order to get the temperature of the surveyed object "pixel-by-pixel"; and non-radiometric ones, which can only analyze the temperature difference between two selected points.



Thermal Surveys can be used in many fields of study:

- ✓ buildings, in which the temperature shift corresponds to a discontinuity in the properties of the materials used. This means that it is extremely simple and quick to view and monitor: energy losses (thermal bridges), thermal isolation and air or humidity infiltrations, to analyze the conditions of walls (in particular storic ones) and plaster and to carry out an energy certification;
- ✓ to analyze photovoltaic plants, wind farms and power lines without shutting them down, to identify malfunctions or for testing the systems;
- ✓ industrial facilities and ifrastructures (like railways structures, roads or dams);
- ✓ agricultural: to evaluate the condition of crops in terms of drought stress, soil moisture, health conditions of fruit or wood trees;
- ✓ environmental: to identify illegal landfills or wildfires, to check the conditions of glaciers, snowpacks and land in order to avoid avalanches or landslides, to monitor waste storage facilities, dams and geothermal activity and to analyze the pollution of bodies of water.



Why you should integrate a Thermographic Survey in your project:

- ✔ it allows you to determine the characteristics of an object without having any physical contact with it;
- ✔ there are no human-related risks;
- ✔ it can analyze hard-to-reach areas;
- ✔ measures are made off-line (in retrospect, after the survey) and they can be repeated, changed or controlled;
- ✔ surveys and post-elaboration are quick and fast;
- ✔ it is a cost-effectiveness operation;
- ✔ accuracy uniformity.





Fenix Air provides the best quality results, thanks to our know-how, our professionalism and the high-end instruments and sensors we use in the field.

These include our DJI Matrice 210 and the DJI Zenmuse XT2, a FLIR radiometric thermal camera with a thermic sensitivity $< 50\text{mK}$.



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FNX S.R.L.

Polo Tecnologico

56023 Navacchio (Pisa - Italy)

Via M. Giuntini, 13 - Lotto 3



FENIXAIR.IT