

General information on plates in acrylic material that can perform thermography without access to the ambient where there are heat sources to be examined.

The plates (code AXU XLK008) are simply optical filters that allow the flow of infrared rays needed to do thermographic inspections, for example on electric panels of low and medium voltage, electric devices and working machineries and to find in a safe way if there are some hot or overheated points. They are made without any type of fixing devices, to be adapted to different needs.

It increases your productivity by improving the reliability of your instruments and the safety of your staff. They're easy to be installed and used and they have a long working life.

## Passage of infrared-rays

The infrared-ray passing by the normal glass or synthetic material porthole are sensibly reduced so that you can't make well-founded surveys with thermal imaging infrared cameras. The plates XLK008 allows the safe observation of infrared-ray coming from a different environment than the one when the operator is. They are also suggested for inspection to electrical and electronics components or systems.

Permanently installed on switches, cell doors and trafo panels make you free to supervise infrared-rays without switch-off line voltage and to find problems on critical areas, like bars, switches, isolators, fuses, etc. without the necessity of disturbing or stop the process.

This way of making thermal images offers you the possibility of improve final results.

**Important statement:** such plastic sheets are supplied as "optical filters", without any certification for use in electrical systems. Customers must check if such items meet the safety needs for their desired application

## Technical characteristics



The plates XLK008 are made completely with a special white acrylic material, IR see-through, RoHS-compatible, not self-extinguishing. Standard dimensions: 75 x 75 mm, 2 mm thick, with smoothed edges and rounded off corners. Maximum recommended continuous working temperature: 100°C

Starting softening temperature: 170°C

The plates are provided in a packet containing the specific curves of that production lot on the see-through to infra-red, as the example below. To clean with degreasing we recommend the use of non-aggressive detergent for glasses.

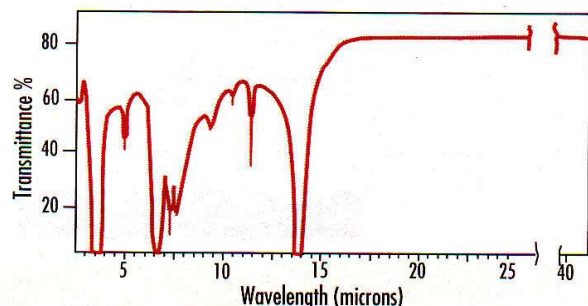
### Plates mounted in 96x96 mm size

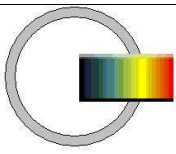
These plates should be supplied also already mounted in a complete window, please search for XLK011 model on <http://www.axu.it/lookir>

## Application examples

Thanks to the small sizes, the XLK008 plates can also be applied at critical points of machinery or important equipment to recognize some critical thermal regions. The more common applications are on electric panels, electric motors, trafos, inductors, connectors, cabinets, machineries, drying kilns, climatic chambers, test rooms, cogenerators, chemical and pharmaceutical plants.

## IR transparency of XLK008

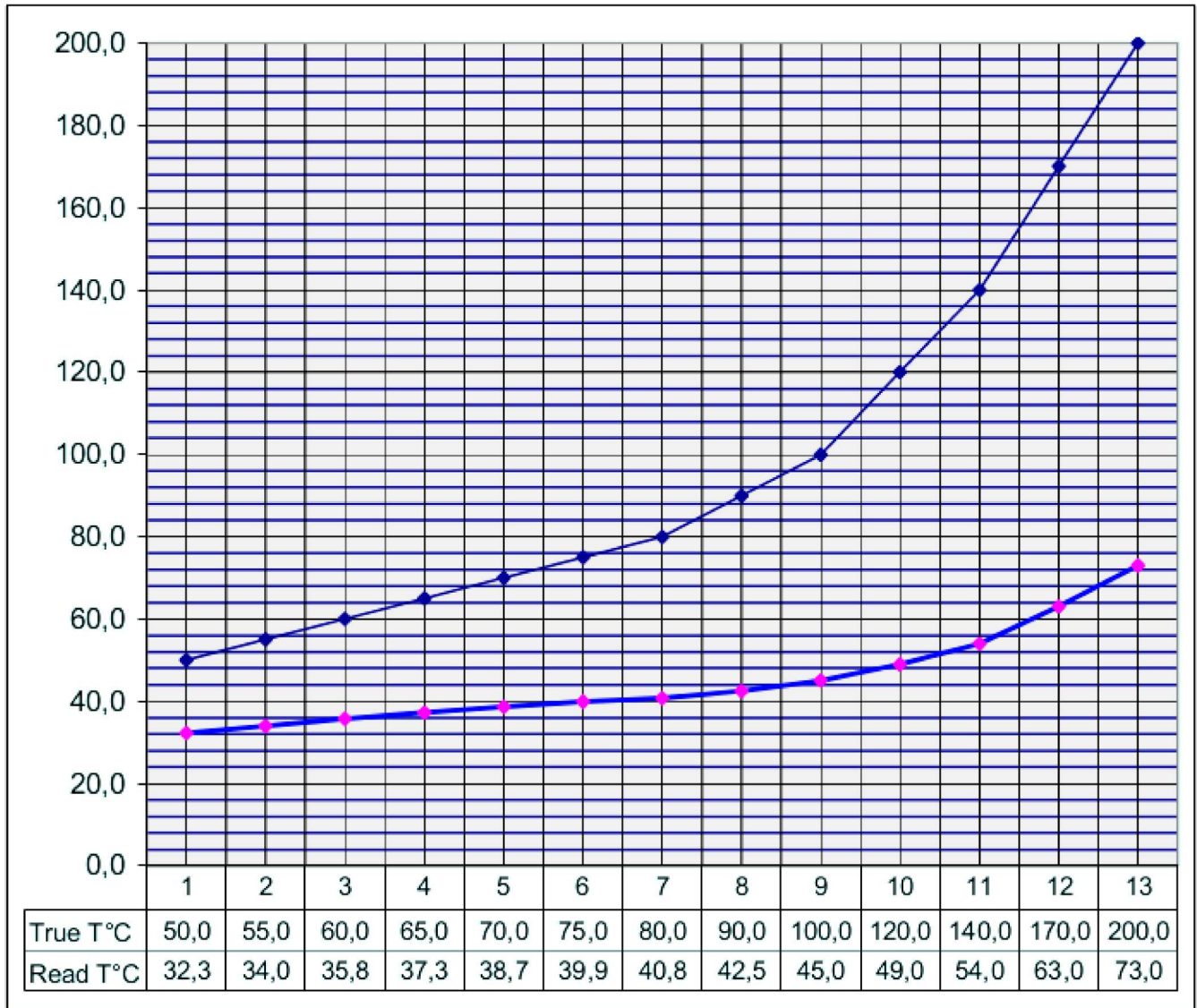




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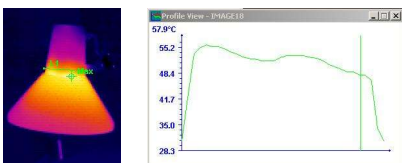
## Theoretical conversion curves

Blue line with red dots indicates temperatures in °C seen by thermocamera through the window xlk008. The blue line with blue dots indicates the true temperature in °C corresponding to the observed heat source. After measurement with IR thermocamera, find the value between red dots and consider the temperature between blue dots in the same position in vertical.



Note: values supplied can differ by production lots within 5% of absolute temperature values related to observed target.

Comparison between direct thermal image and the same thermal image through LookIR window:



Direct thermal image on the left and thermal image through a plates XLK008 on the right. The small reduction is visible from the graphics.

