



Infrared Viewing Windows

Conduct Thermal Scans Without Exposure to Live Components



IRISS reinforced windows come in 2", 3", and 4" diameters.

Each is supplied complete with mounting hardware and cover as well as an adhesive-backed drill/cutout template and window ID label.

Using an IR window, switchgear and components can be scanned without opening the panel.
This is faster and safer than "open panel" inspections.

Why use an IR viewing window?

Reduces risks associated with “open panel” inspections
Thermographers are not exposed to potentially hazardous components
Reduced need for PPE (flash hoods, Nomex, gloves, etc.)
Reduced need for contractor escorts
Reduced time and cost associated with thermographic surveys
The bottom line is improved plant reliability and safety

IRISS VPF(R) Reinforced Fixed Viewing Optics Windows

These windows combine an IR transmitting polymer window with a rigid support grating. The result is an Infrared inspection port that is electrically and environmentally secure.

Meets IEEE Standard C37.20.2 requirements for Viewing Panes.

This standard is directly applicable to metal clad switchgear up to 38 kV, and station type gear up to 72 kV
NFPA 70E compliant as operators are never exposed to energized components.
IP65/NEMA 4 certified even when in use.
UL Listed and tested



Frequently Asked Questions

Q. How accurate is temperature measurement using a window?

As long as you apply proper compensation, the accuracy of your camera and temperature measurement is unaffected by use of a viewing window.

Q. How do adjust my camera when using a viewing window?

Your camera may or may not have adjustable transmission compensation. If it does, adjust the transmission compensation to the appropriate level. If your camera does not have adjustable transmission compensation, compensation can be done through emissivity adjustment.

Q. How will windows affect the rating of my enclosure?

The windows are independently tested and certified to IP65 (weatherproof) both open and closed. They will not effect weatherproof ratings on enclosures.

Q. Are the windows “arc flash rated”?

No. Individual components can never be rated, only complete assemblies. Keep in mind also a window is not intended to contain an arc blast. It greatly reduces the likelihood as it eliminates the common “arc flash triggers” related to open-panel inspection.

Q. How much of the inside of the panel will I be able to see?

This is a function of the window size, the camera field of view, and the distance from the window to the component. Of course the camera can be held at various angles to view a larger target. Request a copy of our field of view matrix.



Two Infrared viewing window configurations are available:

VPRF Series windows which utilize the IR1 polymer and viewing grate together. These windows are IP65/NEMA 4 rated, even when in use, plus they meet both the load and impact withstand specifications in IEEE C37.20.2. They are also UL tested and approved for flammability. These are the preferred windows for electrical enclosures.

VPC Series windows utilize mineral crystals. They are preferred for high temperature and other specialty applications. Available crystal materials include Calcium Fluoride, Sapphire, Germanium, and Zinc Selenide.

All window materials meet the UL 94 5VA flammability standard

Ordering Information

VPRF(R)-50 2" reinforced viewing window	\$ 150
VPRF(R)-75 3" reinforced viewing window	\$ 235
VPRF(R)-100 4" reinforced viewing window	\$ 325
VPRF-Evaluation kit	\$ 600

The evaluation kit includes one each, VPRF-50, -75 and 100, plus mounting hardware and covers for all. Also includes 4" X 4" sample of the polymer.

Other window materials available in 2", 3" and 4" diameter are BaF₂, CaF₂, ZnSe, Germanium and Sapphire. Please call to discuss your application requirements.

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