

H.VIR WINDOWS

Transparency range:
UV - visible - IR (0.3 to 11 μm)



Improves productivity, reliability of your equipments and safety of your personnel

Low medium and high voltage



SOREM

VERLINGER



The **H.VIR*** is a patented window enabling a safe visual and IR (band 2 and 3) non destructive inspection of internal areas of protected closed cells.

It is specially adapted to the inspection of major electrical components. Permanently fitted on switchboards, transformer panels, cell doors, it constantly permits an IR surveying without downtime.

Photo: Robert Lourdin (MAPICA)



• SAVINGS

The **H.VIR** window enables **preventive** inspections of critical areas (Connecting bars, breakers,...) **without interrupting** or disturbing the process.

• SAFETY

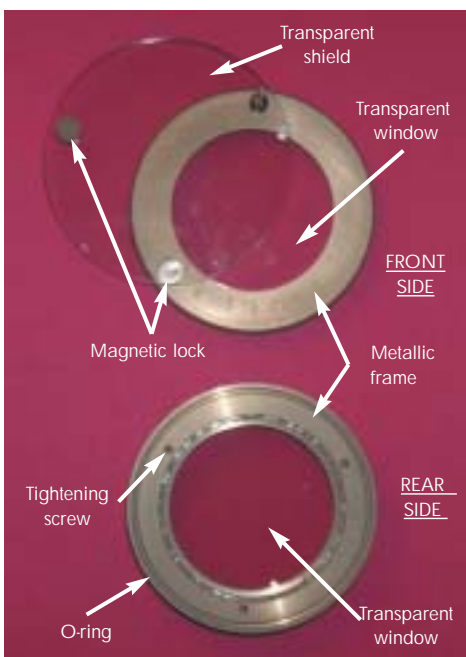
Without **H.VIR**, the IR inspection may be **impossible or dangerous** due to electromagnetic radiations (NFPA - 70 - E standard). In particular, it permits a safe inspection of high voltage equipment.

• APPROVAL

The **H.VIR** has been widely distributed all over the world since 1995 and meets all of the safety rules for explosion-proof cells. It conforms with different international standards. A lot of manufacturers now include the **H.VIR** in their proposed equipment.

• THE WINDOW COMPRISES :

- **A waterproof metallic frame** (IP67 level of the NF EN 60529 standard) to be fitted on the equipement panel by means of 3 screws and an o-ring supplied with.
- **A transparent impact resisting** (IK07 level of the NF EN 50102 standard), **external protecting shield** which can be opened or closed by means of a magnetic lock.
- **An optical plate** transparent to UV, visible and IR radiations according to the working wavelengths. Two window types exist only differing in the window material



* : H.VIR, IS A COMET REGISTERED TRADE-MARK

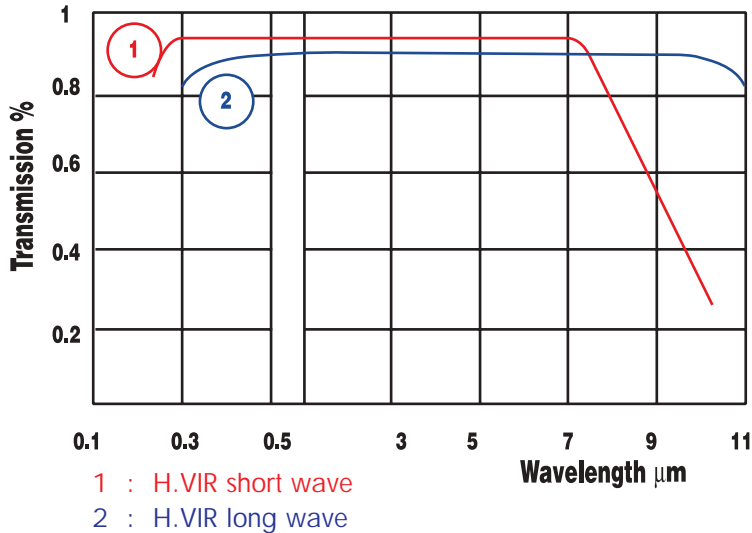
TECHNICAL INFORMATION

STANDARD MODELS:

There are two types of windows according to the used wavelength:

● **SHORT WAVE** (0.3 à 5.5µm) - H.VIR 70 / 80 ou 100 type. The crystal has a transmission rate of 94% from 0.3 to 5.5µm.

● **LONG WAVE** (0.3 à 11µm) - H.VIR 75 / 85 ou 105 type. The crystal has a transmission rate of 94% at 0.3µm to 82% at 11µm.



There are different sizes in each type according to the diameter of the window

window diameter	ø 52 mm	ø 72 mm	ø 95 mm
Short wave	H.VIR70	H.VIR80	H.VIR100
Long wave	H.VIR75	H.VIR85	H.VIR105

CUSTOM MODELS:

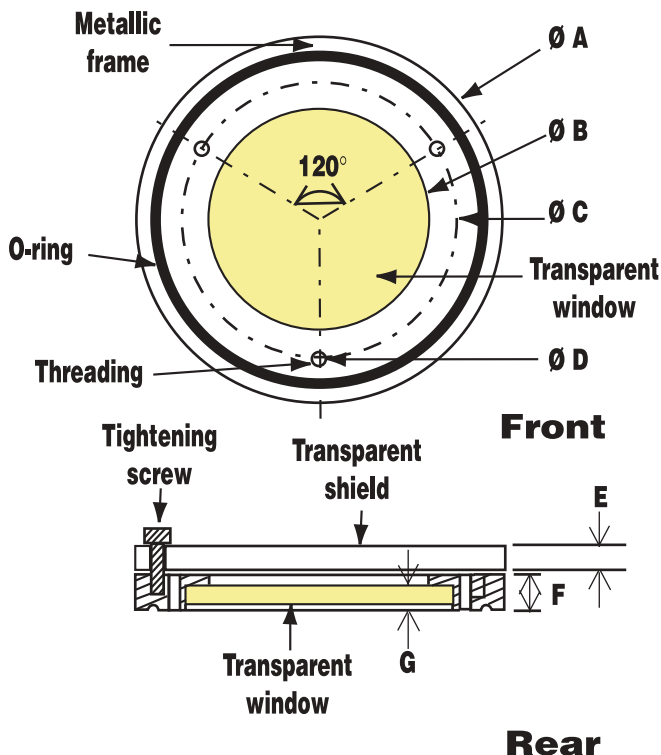
On request, SOREM can develop any kind of windows according to needs or applications; we have solutions adapted to specific applications or non standard environmental conditions. Please, do contact us.

CHARACTERISTICS OF THE WINDOWS:

- POROSITY: None
- SOLUBILITY: None

- RESISTIVITY: $7.9 \cdot 10^{17}$ ohm at 20°C and $6.7 \cdot 10^{11}$ ohm at 150°C

- UV SENSIBILITY: None



	H.VIR70 and H.VIR75	H.VIR80 and H.VIR85	H.VIR100 and H.VIR105
ø A (mm)	79	100	133
ø B (mm)	52	72	95
ø C (mm)	64	85	113
ø D (mm)	3	3	4
E (mm)	5	5	8
F (mm)	6.5	6.5	8

PRACTICAL INFORMATION

• APPLICATIONS

The **H.VIR** window is particularly adapted to following applications:

- high voltage protection cells (connecting cable head visualization, circuit breakers, fuses and fuse-boxes);
- high-low voltage transformers: low voltage connection boxes;
- low voltage distribution (400V): main circuit breakers (distribution bar connectors, bar connectors and crimping), low voltage output, plug in racks;
- electric motors (medium and low voltage except ADF): connection boxes, DC motor commutators, synchronous or asynchronous motor rings;

The standard models meet the normal use conditions of electric cells and transformers:

- temperatures from -50°C to 55°C included and differential pressures up to 1.2 bar.
- they are exclusively designed for an inside use under standard environmental conditions.

For outside application or non standard environment, **contact us**.

• INSTALLATION

H.VIR windows are supplied with directions for use and assembling, as well as all of the elements (screws and o.rings) to fasten them on a flat surface.

The position has to be accurately settled according to the areas to be inspected

Assembling comprises:

- Carrying out a round aperture $\varnothing B$.
- Drilling three holes.
- Installing screws and o.ring.

Assembling is easy and can be carried out by a worker.

• MAINTENANCE

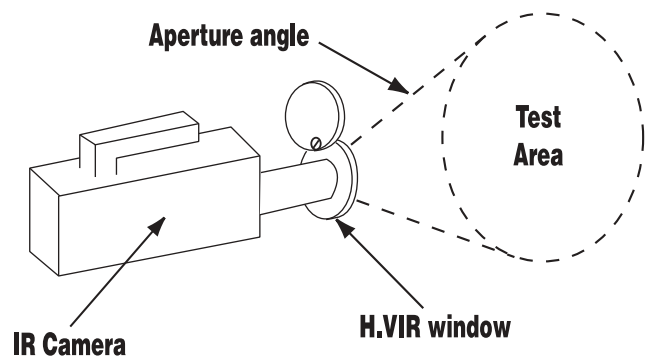
- The windows do not need any particular maintenance procedure when they are used according to our recommendations.
- In case of superficial dirty marks, a cleaning procedure according to our indications should be applied.

• REMARK

Do only use approved H.VIR

• YOU WANT TO EQUIP YOUR UNITS OR CELLS WITH H.VIR WINDOWS ?

- **In case of equipment to be ordered:** Ask the electric equipment manufacturer to install the windows prior to delivery.
- **In case of equipment already installed:** Appropriate positioning has to be decided ; ask the nearest agreed distributor. If troubles arise, contact us and give us the references of your equipment.



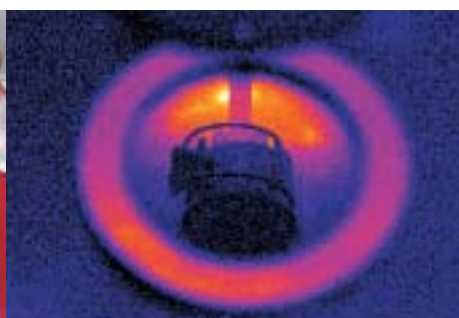
TECHNICAL APPLICATIONS

• SOME EXAMPLES OF INSTALLATION



- Generator connection sockets.
- Motor connection sockets.
- Connectors.
- Closed high, medium and low voltage cells.
- Communication switchboards.
- General equipment for energy distribution.
- Motor control panels.
- Unit and components for high, medium and low voltage switch board.
- Low, medium and high voltage driving equipment.
- Distribution switchboards
- Connector boxes for Power transformer boxes.
- Bar sets.

• IMAGES OBTAINED THANKS TO THE H.VIR WINDOW



H.VIR

Worldwide reference.

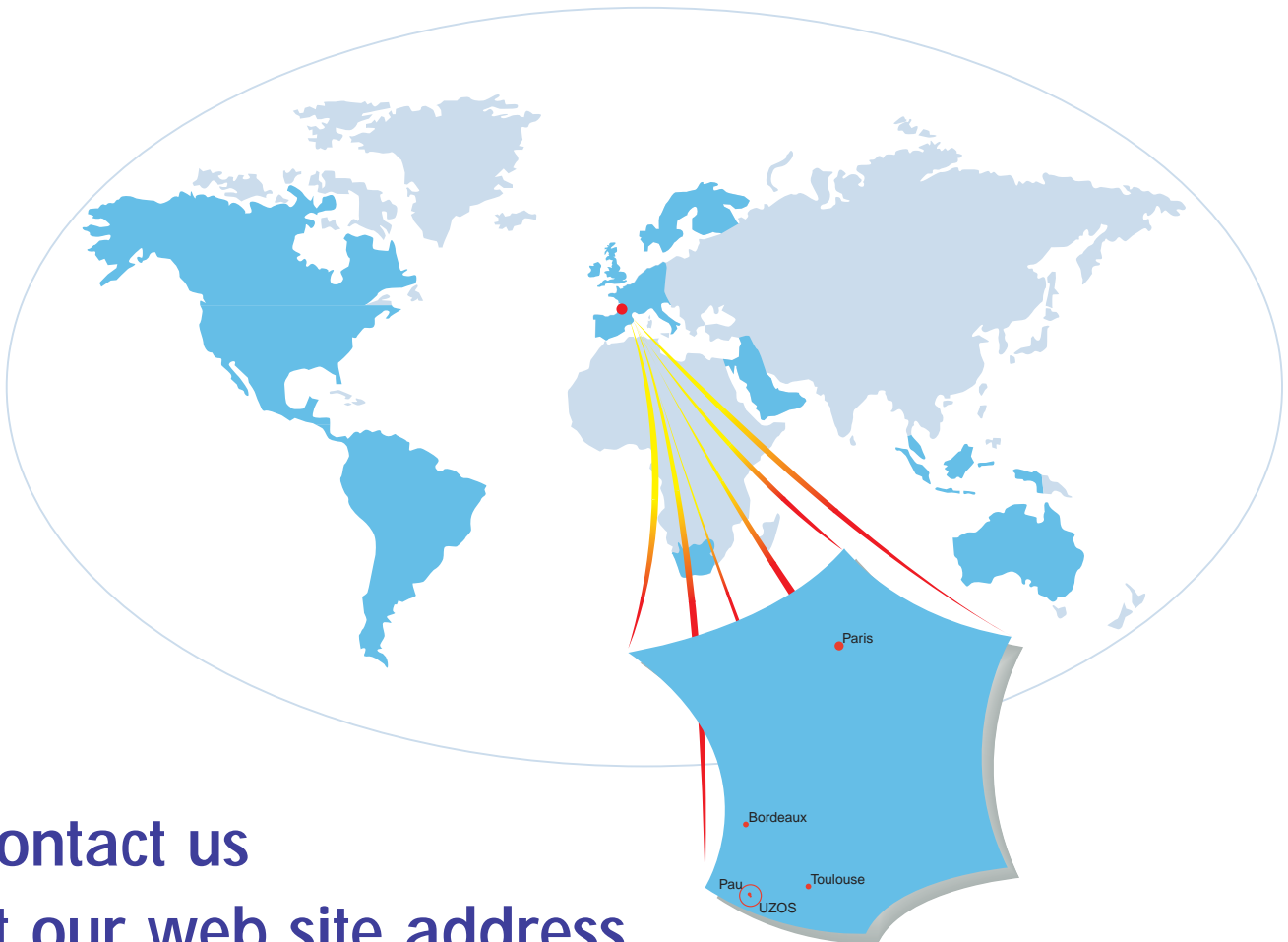
International agreements:

(EN in Europe, UL in the U.S.A., NEMKO in Norway...).

Diversified applications:

(paper factories, agroalimentary, automotive industry, energy, oil industry, chemical industry, hospitals, museums, aerospace industry, pharmaceutical,...).

Near services.



Contact us
at our web site address...

www.hvir.com



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