

**DEVELOPED BY EXPERTS.** 

# MARKET LEADER FOR OVER 20 YEARS.

## JIT is the only one that develops customized projects, with combination of sizes, frame and lenses.



#### MISSION

To be an international reference for excellence, quality and innovation, exceeding the expectations of our Clients, Suppliers and Employees within the principles of ethics and legality.



#### VISION

Develop, produce and continuously optimize solutions of interest to our customers and users through the development of new technologies.



#### **VALUES**

Professional ethics,
Commitment, Innovation,
Respect for the Environment,
Excellence, Technical
Knowledge and
Transparency.

### WHERE TO APPLY



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**PANEL** 



**CONNECTION BOX** 



TRANSFORMER

## WHICH **BENEFITS**

- 100% compliant with NPFA codes and other standards for low and medium voltage panels.
- Any possibility of contact with busbars and energized components is eliminated, avoiding the risk of electrical arcs and shocks.
- The panels, cubicles, drawers and connection boxes do not need to be opened during the thermography execution, reducing the thermography execution time, eliminating the labor of electricians to open panels, cubicles, etc., as well as risks of accidents by contact.
- Thermographic inspection becomes simple and the periodicity can be adequate, reducing the interval between inspections, increasing operational reliability.
- Thermography can be performed on 100% of the assets. Without the windows, an average of 35% of which are not inspected, such as: motor connection boxes, generators, transformers and in some cases even medium voltage cubicles. In this case, the gain in operational reliability and occupational safety grows in the same proportion as the increase in asset inspection.
- Post-repair thermographic inspection can be carried out, increasing operational reliability.





## HOW DO SAFETY WINDOWS WORK FOR JIT THERMOGRAPHIC INSPECTION?

A Thermographic Inspection Window is an inspection point designed to allow the infrared radiation to transmit to the outside environment so that a data point can be measured using an thermal camera. It is composed of Polymer or Crystal lens within, an aluminum or stainless steel frame.

The lens allows the passage of infrared radiation at the frequency used by thermal imagers for inspection. The windows are mounted on the panels in positions that allow inspection of the electrical components inside the panels.



The purpose of the JIT® Thermographic Inspection Safety Windows is to allow thermographic IR and Ultraviolet UV inspections to be carried out without the need to open panels, cubicles, connection boxes, etc., increasing the safety of the team and thermographers/electricians and operational reliability.



It allows carrying out inspections safely, as it makes it possible to carry out thermographic and UV measurements of the internal components of panels, cubicles, connection boxes, etc., without the need to open them. It is possible to carry out inspections at any time, without depending on stops.

There is a significant gain in time in the execution of thermographic IR and Ultraviolet UV inspections, because with the installation of the JIT® window, the need to open covers and doors is eliminated, thus saving time during a thermographic inspection. Its cost is negligible compared to the losses that a production stoppage or loss of a panel represents.

### GENERAL CHARACTERISTICS

- Lens made of Calcium crystal, Barium crystal, I.R. Polymer.
- Resistant to arcing, vibration, moisture and impact.
- Compatible with all types of thermal imaging cameras on the market (short, medium and longwave Infrared) and Corona measurement cameras (UV).
- Allows thermographic inspection, visual inspection (Crystal lens), ultraviolet inspection (Crystal lens) and IR image fusion (Crystal lens).
- Lifetime warranty.

## JIT is the only vendor which allows different types of combinations of sizes, frame, lids and lenses.



#### **INSTALLATION**

Models with Quick −JIT<sup>™</sup> installation system require just a single hole for installation.

Models with screw fixing come with a drilling template, thus allowing precise drilling to fit the windows. With the right tools, installation can be done quickly, easily and safely.

#### WANT TO HIRE THE INSTALLATION?

JIT has highly qualified installation teams formed by experts in thermographic inspection, to install the windows at correct points, allowing maximum field of vision.

#### **DIFFERENTIAL OF OUR QUICK-JIT MODELS**

They are the only windows on the market that offer a bigger viewing diameter for differentiated measurement.







With the enlarged viewing diameter, it is possible to inspect a larger area of components with the same window.

| MODEL / SIZE   | JIT 50 - 2"                     | JIT <b>7</b> 5 - 3"             | JIT 100 - 4"                    |
|--|---------------------------------|---------------------------------|---------------------------------|
| GENERAL SPECIFICATIONS   |                                 |                                 |                                 |
| Voltage range  | Low/Medium/High Voltage         | Low/Medium/High Voltage         | Low/Medium/High Voltage         |
| Drilling diameter (Model AR/IR - Quick JIT) fastening to sheet metal up to 7mm (0,27") | 70 mm (3")                      | 102 mm (4,01")                  | 121 mm (4,76")                  |
| Drilling diameter (Model AL/IL - Fixation<br>Screw) fastening to sheet metal over 7mm  | 50 mm (2")                      | 75 mm (3")                      | 95 mm (3,74")                   |
| JIT Flip Lid   | Aluminum only                   | Aluminum only                   | Aluminum only                   |
| Lock nut torque (AR/IR Model)  | 28 N.m                          | 28 N.m                          | 28 N.m                          |
| Gasket Material  | Silicon                         | Silicon                         | Silicon                         |
| Visual inspection  | With crystal lens               | With crystal lens               | With crystal lens               |
| LENS SPECIFICATION   |                                 |                                 |                                 |
| IR Transmition IV - 0.67   | Polymer                         | Polymer                         | Polymer                         |
| IR Transmition IV - 0,80   | Calcium Fluoride Crystal (CaF2) | Calcium Fluoride Crystal (CaF2) | Calcium Fluoride Crystal (CaF2) |
| IR Transmition IV - 0,94   | Barium Fluoride Crystal (BaF2)  | Barium Fluoride Crystal (BaF2)  | Barium Fluoride Crystal (BaF2)  |
| Lens Diameter  | 55 mm (2,1")                    | 80 mm (3,1")                    | 100 mm (3,9")                   |
| Viewing Diameter for Inspection<br>(AL/IL Models - Screw Fixing)                       | 50 mm (2")                      | 75 mm (3")                      | 95 mm (3,7")                    |
| Viewing Diameter for Inspection<br>(AR/IR Models - Quick-JIT)                          | 64 mm (2,5")                    | 93 mm (3,65")                   | 114 mm (5")                     |
| Picture in Picture & Image Fusion  | Models with Crystal Lens only   | Models with Crystal Lens only   | Models with Crystal Lens only   |
| Compatible with all models of thermal imagers  | Yes                             | Yes                             | Yes                             |

#### THERMAL SPECIFICATIONS (Maximum Temperature)

| l | Seals     | 240°C (464°F)  |  |  |
|---|-----------|--|--|--|
|   | Structure | 660°C (1200°F) - Aluminum<br>1510°C (2750°F) - Stainless steel |  |  |
| Ī | Lens      | 1360°C (2480°F) - Crystal                                      |  |  |

#### **ELECTRICAL AND MECHANICAL TESTS**

**UL Component Recognition** 

Test IEC62271-200 Arc-Flash - 13.8 KV - 31 KA (RMS current) 73 KA Peak - 60 Hz Test

IEC 61439-1/2 - 440V - 73 KA Peak - 60 Hz

Test IEC 60529 (TUV) - IP67

IEC 60068-2-3 Test - Resistant to extreme humidity Test IEC

60068-2-6 - Vibration Resistant 100m/s A2

ANSI Test IEEEC37.20.2 section A3,6 - Impact and load resistant cover

#### WARRANTY AND CUSTOMIZATION

| Window Warranty             | Lifetime  |  |
|-----------------------------|---|--|
| Special projects on request | Development of customized projects in different sizes of windows and square windows |  |
| Installation Project        | We develop projects, specification and counting of Windows on the client            |  |

#### **CONFIGURE YOUR WINDOW**

#### **PURCHASE ORDER CODING**











SIZE MAT

MATERIAL FIXATION

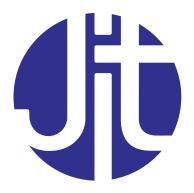
FIXATION LI

LENS

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| SIZE | MATERIAL            | FIXATION  | LENS                         | COVER                                    |  |
|------|---------------------|---|------------------------------|--|--|
| 2"   | (A) Aluminum        | (L) Stainless steel screw for sheet thickness over 7 mm (0,3")  (R) Quick-JIT for sheet under 7 mm (0,3") thickness | (B) Barium Fluoride Crystal  | (D) JIT flip aluminum models only        |  |
| 3"   |                     |   | (C) Calcium Fluoride Crystal |  |  |
| 4"   | (I) Stainless steel |   | (P) Polymer                  | (V) JIT View (Polycarbonate 6 mm - 0,2") |  |

Example: JIT75-IRC-V Security Window for thermographic inspection 75 mm - 3" diameter, (I) stainless steel structure, (R) Quick-JIT fastening system (thread), (C) Crystal Calcium Fluoride lens, (V) 6 mm polycarbonate cap



### **Contact us**

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