



# XDV Series IR & Visual Inspection Window

## 2 Inspections, 1 Window

The XDV series is a “Dual-View” inspection window that combines an 4 inch by 4 inch infrared (IR) window, with a 1.7 inch by 4 inch visual inspection window.

Dual-View format allows technicians to take IR scans and digital photos through the same window while de-risking their predictive maintenance work process.

### Compliance Made Easy & Quick

Easily comply with OSHA, NFPA 70E, CSA Z462 and similar electrical safety mandates by using closed-panel inspection methods. Infrared (IR) Windows and Visual Inspection Windows allow workers to perform IR and visual inspections while keeping energized electrical equipment closed, and in “normal operating condition.”

Closed-panel inspections eliminate inherently high-risk tasks, such as removing panels or opening hinged doors. The resulting work task is safer for personnel, plant assets and processes.

The more efficient work process can also reduce inspection costs by 75% to 95%, while improving worker safety.

### Access the Inaccessible:

How does your facility inspect equipment that can no longer be opened while energized due to that equipment’s voltage or incident energy rating? How does your facility inspect equipment protected by switched interlocks? Inspection windows provide safe access to “inaccessible” energized equipment.



### Over-Engineered for Your Safety

The XDV is built to out-live your enclosure. You have to see it to believe it.

Our window body and cover are machined from half-inch bar stock aluminum. All other components are stainless steel. When it comes to durability and brute strength, Exiscan® is without peers.

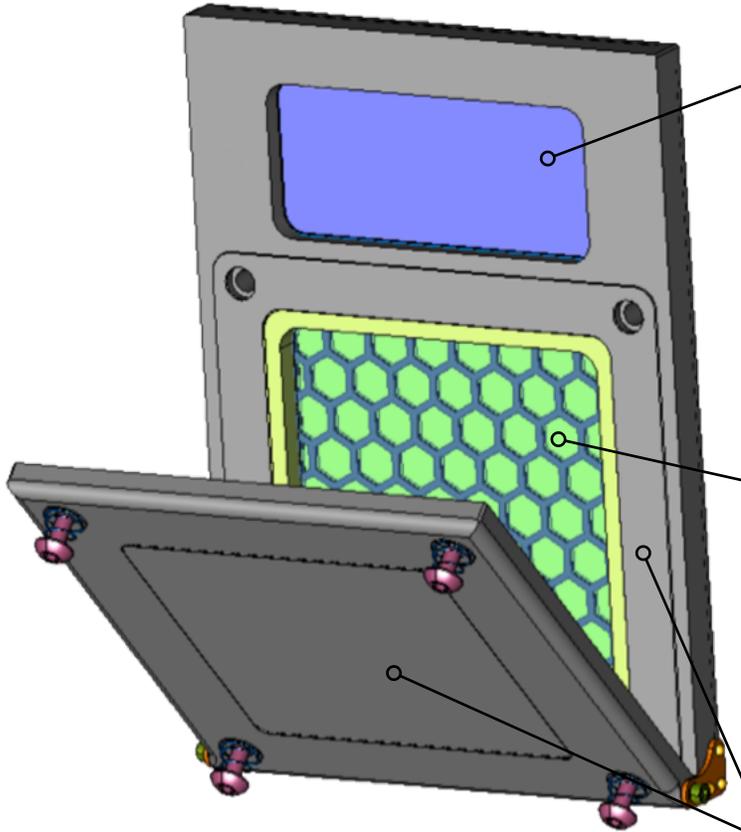
### Analyze Better Data:

Because using inspection windows does not increase risk of electrical hazards, inspections can be performed during peak load, when data collection is ideal, without worry of accidental process interruption.

*Patent Pending*



## Anatomy of a Dual-View IR Window



### Visual Inspection Window:

- 1.7"x 4" viewing window provides broad field of view inside the enclosure.
- Impact-resistant polycarbonate: the durability and resilience you expect from Exiscan®.
- Scratch-Off™ protection inside & out: peel scratches and hazing off the viewing window for a clear, accurate view with Exiscan's™ patent-pending, multi-layer tear-away system.
- UV stabilized, oil resistant.

### Infrared (IR) Window:

- Square, 4"x4" IR window optic provides best in class field of view without cropping issues.
- Impact-resistant optic for unsurpassed durability.
- Finger guard allows user to place camera lens next to window optic to maximize field of view.
- Polymer optic is inherently resistant to moisture, humidity, broad spectrum of acids and alkalis for longevity and stable transmission.
- Transmission throughout the entire long wave and mid wave spectra for accurate temperature and  $\Delta T$  calculations.

### Other Structural Features:

- Stainless steel reinforcing plate (inside the enclosure) ensures a tight, flat seal in the event of blast forces.
- Stainless steel studs with Nyloc nuts ground and anchor the window into virtually any enclosure.
- Gaskets between the cover and body, and between the body and enclosure provide a NEMA 4X seal for indoor and outdoor use.

### Get More Out of Your Inspection Windows

- More Durability
- More Field of View
- More Accuracy
- More for your Money
- Contact your local Distributor for a demonstration.

### Window Body & Cover:

- Machined from 1/2" aluminum bar stock for unmatched resilience (stainless steel available).
- Treated with Mil Spec anodizing process and then powder coated for "belt and suspenders" protection against industrial environments.
- Cover mounted on stainless steel hinges for ease of use and captivated component.
- 1/4-28, stainless steel, spring loaded, captive screws for a safe, secure seal.
- Cover available in full or partial (IR only).

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<b>Material Specifications</b>	
Body & Cover Material	Aluminum: Anodized & Powder Coated (Stainless Steel Available)
Backer Plate & Finger Guard	Stainless Steel
Hardware & Fasteners	Stainless Steel
Self-Locking Nuts	Nickel-Plated, Nylon Insert Lock Nuts ("Nyloc")
IR Optic	Transmissive Polymer
Viewing Window Optic	1/4" Polycarbonate: UV stabilized, oil resistant, includes Scratch-Off™ protective layers on both planes of window
Gaskets	Silicone & Neoprene
Cover Screws*	1/4-20 Captive
<b>Dimension Specifications (nom.)</b>	
Body and Cover (L x H)	6.0 in x 8.4 in (152 mm) x (213 mm)
Total Width (Body + Cover)	0.9 in (23 mm)
Cover Thickness	0.4 in (10 mm)
IR Aperture Dimension	4.0 in x 4.0 in (102 mm) x (102 mm)
IR Aperture Area	16 sq in (406 sq mm)
Viewing Window Aperture Dimension	1.7 in x 4.0 in (51 mm) x (102 mm)
<b>Tested / Certified</b>	
UL 50V (IR Window Standard)	Yes
NEMA Environmental Rating	NEMA 4X
Ingress Protection (IP)	IP65
UL 746C (Impact & Flame Resistance)	Yes
ANSI/IEEE C37.20.2 Sec A.3.6 (Switchgear Window Impact)	Yes
CSA Compliant (cUL)	Yes
<b>Transmission Compatibility</b>	
Mid Wave & Long Wave Imagers	All Brands
Vibration	Unaffected
Broad Spectrum Acids / Alkalis	Unaffected
Humidity & Moisture	Unaffected
<b>General</b>	
Voltage Range	Low, Medium & High
Grounding	Automatically grounds when mounted to grounded panel/door
Operating Temperature	-40°C (-40°F) to 150°C (300°F)
Installation	Punch, saw-cut or nibble
<b>Lifetime Warranty</b>	Unconditional for Materials & Workmanship
<b>Patent</b>	Patents Pending: USA and International
<b>Country of Origin</b>	<b>Proudly Made in the USA</b>

\*Standard Cover Screw Type: Allen Head (5/32" Hex Socket). Other options available.

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## Quick & Easy Installation:

The XDV Inspection Windows require a one-time modification to the enclosure. A qualified person simply cuts a 4"x 6.7" opening and drills 10 pilot holes in the panel or door.

The rectangular opening gives users the latitude to either use a knockout punch, saw, cutoff wheel or nibbler. Properly equipped, a team of two technicians can install five to eight windows an hour.



## Why Polymer?

Exiscan® designed its IR windows for the industrial electrical market. With this in mind, traditional laboratory crystals were not an option. After extensive testing and research, we saw that only polymer satisfies the most important demands of the industrial market:

- Durability: Industrial electrical equipment requires impact resistant optics
- Longevity: Transmission characteristics must be resistant to humidity, moisture, chemicals
- Accuracy: Accurate Temperatures and  $\Delta T$ s require an optic that transmits the *entire* LWIR spectrum
- Large Field of View: Larger, square windows allow Thermographers to evaluate more with less
- Value: Closed-panel inspection is safe and efficient, but industry requires affordable solutions

XDV Dual-View IR windows with its patent-pending polymer infrared optic and patent-pending Scratch-Off™ window protection are uniquely suited for industrial and facilities maintenance environments: Built like a tank, resilient and warranted for life, accurate and compatible with all models of cameras, big enough to see it all with fewer windows, yet surprisingly affordable.

Exiscan® won't compromise on safety, accuracy or usability. That's why we over-engineer our design and only use industrial-grade materials — like polymer, aluminum and stainless steel.

## Ordering Information:

