

FLIR IRW-Series IR Inspection Windows



FLIR IR Windows for Safer Electrical Inspections

Broadband Crystal Lens

Easy PIRma-Lock™ Installation

Quick Access Permanent Hinged Cover

Compatible with All Thermal Cameras

Introducing FLIR IRW-Series

for Safer, More Efficient Electrical IR Inspections

Opening electrical cabinets to perform IR and visual inspections of live components is dangerous work, exposing you to the risk of a hazardous arc flash incident. Out of necessity, it's also a painstaking, time-consuming process.

Now you can put the added safety of new FLIR IR Windows between you and energized equipment to better protect yourself and eliminate the need for opening enclosures. Much easier to install and use than other brands, FLIR IR Windows help you work faster with greater confidence. Perform inspections more efficiently and reduce the threat of arc flash injury significantly so you can get more done and stay in compliance with NFPA 70E requirements.

All FLIR IR Windows feature a secure, permanently-hinged cover that opens easily with one hand, which means there's nothing to remove, drop, mix up, or lose. FLIR's broadband crystal allows cameras to capture visible light pictures as well as thermal images and lets LED and laser illumination pass straight through for clearer visual assessments.

Combine FLIR IR Windows with a FLIR thermal camera that features integrated visible light video, lamps, and a laser pointer, and you'll be set to get the job done single-handedly.



FLIR IR Windows Features:

Easy Installation – FLIR IR Windows install quickly and securely using the same design as common conduit connections:

- Only one hole to create for each window
- One simple PIRma-Lock™ ring nut to tighten
- Uses standard US punch tools for hole knockouts

PIRma-Lock™ Reliability – Tried and true locknut technology makes FLIR's locking ring an IR window first:

- Teeth lock tight to the inside of the panel
- Automatically grounds metal components
- No screw holes required that might later strip out

Quick Access Hinged Cover – Simple thumb screw releases the permanently-hinged IR window cover:

- Easy, flip-open hatch for faster scans
- Prevents dropping, mix-ups, and loss
- Inside label for permanent identification

Broadband Crystal IR Window – Lens encased in rugged, anodized aluminum frame allows indoor & outdoor scans:

- Transmits short, mid and longwave IR images
- Supports visual inspections and fusion features
- Lets laser pointers and illumination shine through

Greater Productivity and ROI – Significantly reduces inspection time for more efficient assessments within NFPA 70E guidelines:

- Requires only one person instead of three
- Eliminates need for cumbersome PPE
- Helps reduce vast majority of arc flash triggers

FLIR Integrity – FLIR backs IRW-Series windows with comprehensive testing and a limited lifetime warranty:

- Meets relevant UL, CSA, IEC, and IEEE standards/ratings
- Tested samples withstood arcs, vibration, and extreme humidity
- Limited Lifetime Warranty against manufacturer defects



One hole to cut.



Easy placement.



Single PIRma-Lock™ ring nut.



General Specifications	FLIR IR Window 2" - IRW-2C	FLIR IR Window 3" - IRW-3C	FLIR IR Window 4" - IRW-4C
NEMA Environment Type	Type 4/12 (outdoor/indoor)	Type 4/12 (outdoor/indoor)	Type 4/12 (outdoor/indoor)
Voltage Range	Any	Any	Any
Automatically Grounded	Yes	Yes	Yes
Maximum Operating Temperature	500°F/260°C	500°F/260°C	500°F/260°C
Body Material	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Gasket Material	Silicone	Silicone	Silicone
Hardware Material	Steel	Steel	Steel
Compatible with All FLIR Cameras	Yes	Yes	Yes
PIRma-Lock Installation System	Yes	Yes	Yes
Cover and Fastener Permanently Attached	Yes	Yes	Yes
Single-hole Installation	Yes	Yes	Yes
Thumb Screw and Safety Screw Included	Yes	Yes	Yes
Broadband IR -- Short-, Mid-, & Longwave	Yes	Yes	Yes
Visible Light Spectrum	Yes	Yes	Yes
Picture-in-Picture & Fusion Image Blending	Yes	Yes	Yes
Size Specifications			
Overall Height	85.5mm (3.36")	107.4mm (4.22")	136.5mm (5.37")
Overall Width	73mm (2.87")	99mm (3.89")	127mm (5.01")
Overall Thickness	25.5mm (1.00")	26.86mm (1.05")	29.25mm (1.15")
Required Actual Hole Diameter (Nominal)	60.3mm (2-3/8")	88.9mm (3-1/2")	114.3mm (4-1/2")
Greenlee Punch	76BB	739BB	742BB
Recommended Max Panel Thickness	3.2mm (1/8")	3.2mm (1/8")	3.2mm (1/8")
Optic Specifications			
Optic Material	Calcium Fluoride	Calcium Fluoride	Calcium Fluoride
Optic Diameter	50mm (1.97")	75mm (2.95")	95mm (3.74")
Viewing Aperture Diameter	45mm (1.77")	69mm (2.71")	89mm (3.50")
Viewing Aperture Area	1590mm ² (2.46in ²)	3739mm ² (5.79in ²)	6221mm ² (9.64in ²)
Optic Maximum Temperature	1355.6°C (2474°F)	1355.6°C (2474°F)	1355.6°C (2474°F)
Ratings & Testing			
UL Component Recognition (UL 50V)	Yes	Yes	Yes
UL 50 / NEMA Environment Rating	Type 4/12	Type 4/12	Type 4/12
CSA Certification, Product Class 3211 07	Yes	Yes	Yes
Arc Flash Testing, IEC 62271-200 (KEMA)		5kV, 63kA for 30 Cycles at 60Hz	
IP Rating, IEC 60529 (TUV)	IP67	IP67	IP67
Vibration Testing, IEC 60068-2-6 (TUV)		100 m/s ² Vibration Withstand	
Humidity Testing, IEC 60068-2-3 (TUV)		Extreme Humidity Withstand	
Mechanical Testing, ANSI/IEEE C37.20.2 section A3.6 (TUV)		Impact and Load Resistant Cover	
Maximum Pullout Strength	657 kg (1450 lbs)	1655 kg (3650 lbs)	1678 kg (3700 lbs)
Other			
Warranty	Limited Lifetime Warranty Against Manufacturer Defects		



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