

A person wearing a white hard hat and a high-visibility yellow safety vest is using a blue FLIR thermal imager. The device's screen shows a colorful thermal image of a wall. The person is holding the device with their right hand. In the background, there is a wall with some text and a warning sign. The text on the wall includes "ALTO V" and "MANTENGASE AFUE". The warning sign has a red triangle and the word "DANGER".

IR INSPECTION WINDOWS





All models feature FLIR's broadband crystal, which allows cameras to capture crisp visible and thermal images without distortions. Combine FLIR IR Windows with a FLIR thermal camera that features integrated visible light video, lamps, and a laser pointer, and you'll have everything you need to get the job done.



FLIR IR WINDOWS

FOR SAFER, MORE EFFICIENT ELECTRICAL IR INSPECTIONS

You put your life at risk every time you inspect live electric components – but you don't have to. FLIR's IRW-Series inspection windows add a protective barrier between you and energized equipment, meaning you don't need to worry about arc flash accidents.

There's no need to open electrical cabinets or pile on layers of protection. These IR windows are easy to install, easy to use, and will help you work with greater confidence. You'll perform inspections more efficiently and reduce the threat of arc flash injury, all while staying in compliance with NFPA 70E requirements.

FLIR IRW-Series windows feature a permanent hinged cover that flips open easily, so there's nothing to drop, mix-up, or lose. Choose the standard anti-corrosion anodized aluminum frame, or if there are mixed-metal concerns, opt for durable stainless steel. This will help prevent galvanic corrosion from contact between the stainless steel cabinet and window frame.

IR WINDOW CERTIFICATIONS

Certification Type	
Underwriters Laboratories Recognition (UL 50V)	Yes
NEMA Environment Rating	Type 4/12
CSA and CSAus Model Certification	Yes
Arc Flash Testing (KEMA)*	5kV, 63kA for 30 cycles at 60 Hz
TUV Water/Dust Ingress, Vibration, Humidity, and Impact Standards*	Yes

* Applies to IRW-2C, IRW-3C, and IRW-4C only.



Easy Installation



One hole to cut.



Easy placement.



Single PIRma-Lock™ ring nut.



FEATURES

Easy Installation, PIRma-Lock™ Reliability

- Uses standard US punch tools for hole knockouts
- Automatically grounds metal components
- PIRma-Lock™ ring nut locks window tight inside the panel

Quick Access Hinged Cover

- Simple flip-open hatch secured with thumb screw releases
- Permanently-hinged cover prevents dropping, mix-ups, and loss
- Inside label for permanent identification

Broadband Crystal IR Window

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

Greater Productivity and ROI

- Cuts inspection time by requiring one person instead of three
- Can reduce or eliminate need for cumbersome PPE
- Helps reduce vast majority of arc flash triggers

Stainless Steel Line

- Avoids contact between dissimilar metals
- Increased resistance to corrosion
- More durable for harsh or outdoor environments

FLIR IR Window Field of View

$$FOV = D \times A$$

Where FOV is the field of view

D is the cabinet depth measured from the window to the target

A is the multiplication factor from the following table:

IRW-Series Model	IRW-2C or IRW-2S	IRW-3C or IRW-3S	IRW-4C or IRW-4S
Tilting any FLIR camera lens	2.4	2.7	3.2

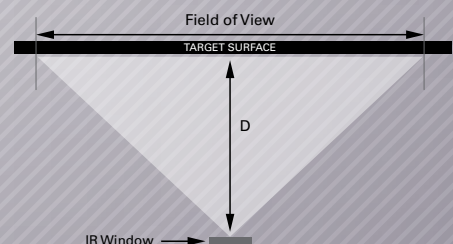


Example:

Using a 3" (IRW-3C) window
with a lens 12" from the target:

$$FOV = 12" \times 2.7$$

$$FOV = 32.4"$$



SPECIFICATIONS

Model	IRW-2C/2S	IRW-3C/3S	IRW-4C/4S
Size	2" Window	3" Window	4" Window
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 – IRW-xC Type	Anodized aluminum	Anodized aluminum	Anodized aluminum
Body Material – IRW-xS Type	AISI grade 316 stainless steel	AISI grade 316 stainless steel	AISI grade 316 stainless steel
Gasket Material	Silicone	Silicone	Silicone
Hardware Material	Steel	Steel	Steel
Size Specifications			
Overall Height	85.5 mm (3.36")	107.4 mm (4.22")	136.5 mm (5.37")
Overall Width	73 mm (2.87")	99 mm (3.89")	127 mm (5.01")
Overall Thickness	25.5 mm (1.00")	26.86 mm (1.05")	29.25 mm (1.15")
Required Actual Hole Diameter (Nominal)	60.3 mm (2-3/8")	88.9 mm (3-1/2")	114.3 mm (4-1/2")
Greenlee Punch	76BB	739BB	742BB
Recommended Max Panel Thickness	3.2 mm (1/8")	3.2 mm (1/8")	3.2 mm (1/8")
Optic Specifications			
Optic Diameter	50 mm (1.97")	75 mm (2.95")	95 mm (3.74")
Viewing Aperture Diameter	45 mm (1.77")	69 mm (2.71")	89 mm (3.50")
Viewing Aperture Area	1590 mm² (2.46 in²)	3739 mm² (5.79 in²)	6221 mm² (9.64 in²)
Optic Maximum Temperature	1355.6°C (2474°F)	1355.6°C (2474°F)	1355.6°C (2474°F)
Ratings and Testing			
UL Component Recognition (UL 50V)	Yes	Yes	Yes
UL 50 / NEMA Environment Rating	Type 4/12	Type 4/12	Type 4/12
Arc Flash Testing, IEC 62271-200 (KEMA)*	5kV, 63kA for 30 cycles at 60 Hz		
IP Rating, IEC 60529 (TUV)*	IP67	IP67	IP67
Vibration Testing, IEC 60068-2-6 (TUV)*	100 m/s² 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)
CSA Certification, C22.2 No. 14 or 508	Yes	Yes	Yes

*Test results valid for IRW-2C, IRW-3C, and IRW-4C only.

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