

The VPFC Series

Crystal Infrared Windows



The VPFC Series (Viewing Pane Fixed Crystal) IR windows are specially coated to reduce the transmission drift due to moisture/humidity. However, industrial users are strongly encouraged to investigate the VPT Series of industrial-grade IR windows which are specifically designed for stability in harsh industrial environments. The transmission rate characteristics of CaF2 are suitable for higher temperature applications, shortwave and midwave thermography and for the visual spectrum. Medium to longwave transmission rates (7-14 micron) are typically between 40-50% based on the infrared (IR) camera detector sensitivities at different wavelengths.

Any Camera - Any Task

The VPFC Series allows any thermographic camera to monitor completely undisturbed assets inside electrical equipment. The VPFC Series work with all ranges of Infrared, Ultraviolet and Visual Inspection Cameras.

Fixed and Stable Transmission

Polymer based infrared windows are unaffected by the environmental and mechanical stresses that degrade the transmission of crystal based IR windows which are fragile and hygroscopic (even when coated).

Features



Environmental Design



Proudly Made in the United States



Limited Lifetime Warranty



Specifications

Model	VPFC-50	VPFC-75	VPFC-100
General Specifications			
NEMA Rating	IP65 / NEMA 4		
Voltage Range	Any		
Operating Temperature	-40°C (-40°F) to 273°C (523°F)		
Body and Cover Material	UL 94 5VA Nylon (switchgear-grade plastic); -40°C (-40°F) to 273°C (523°F); aluminum cover		
Hardware	316 Stainless Steel		
Gaskets	UL 94 5VA TPE; -40°C (-40°F) to 273°C (523°F)		
Dimension and Optic Specifications			
Optic Material	Calcium Fluoride Crystal (CaF ₂); -100°C (-148°F) to 1400°C (2555°F)		
Viewing Aperture Dimensions	5.1 cm (2.0 in) Ø	7.6 cm (3.0 in) Ø	10.2 cm (4.0 in) Ø
Overall Dimensions	9.1 cm (3.6 in) Ø	12.1 cm (4.8 in) Ø	15.1 cm (5.95 in) Ø
Overall Thickness	2.6 cm (1.0 in)	2.6 cm (1.0 in)	2.6 cm (1.0 in)
Inspection Capabilities and Applications			
Midwave IR	Yes		
Longwave IR	Yes		
Ultraviolet (UV)	Yes		
Visual Inspection	Yes		
Medium/High Voltage Applications	Yes		
Outdoor Applications*	Yes		
High Temperature Applications	Yes		
Other			
Warranty	Limited Lifetime Warranty		

* The VPFC is suitable for outdoor applications however, the calcium fluoride crystals IR transmission will degrade faster in outdoor environments.

Certifications

UL & cUL Certifications:

- UL 50V & UL 50E
- UL 746C & UL 746A-2012
- UL 1558
- UL 508A/ ANSI 508A

CSA Certifications:

- CSA C22.2 No. 14-13
- CSA C22.2 No. 14-10
- CSA C22.2 N0. 94-M91
- CSA C22.2 N0. 94.1-07
- CSA C22.2 N0. 94.2-07

IEEE Certifications:

- IEEE C37.20.7 Type 2B

IEC Certifications:

- IEC 62271-200
- IEC 60068-2-6:2007
- IEC 60068-2-3
- IEC 60068-2-78:2012

Other:

- IP65/NEMA 4
- American Bureau of Shipping (ABS)
- DNV P261.1E Maritime, Vessel and Offshore
- Lloyds of London Type Approval



US: +1 (941) 907 9128

LATAM: +1 (941) 704-4445

EMEA : +1 (941) 704-4445

iriss.com