SAFESIDE®
IR Viewing Windows

# IR Viewing Window W-R Series

Increase electrical safety and compliance to NFPA 70E / CSA Z462 with SafeSide® IR Viewing Windows. By shutting the door on open-door infrared inspections, workers can reduce requirements for PPE. The unique, polymer design of our windows not only increases consistency in IR inspections by allowing stable transmission for the life of the product, but the patented reinforced grill makes the SafeSide® IR Viewing Window impact resistant. SafeSide® polymer IR Viewing Windows are backed by an unprecedented lifetime warranty.

## Features

- Supports visual and infrared imaging for any IR camera
- Unconditional guarantee against transmission loss for accuracy
- Patented reinforced grill that does not affect camera focus
- Body is non-conductive UL94 plastics insulated to 30KV/mm
- Simple installation with templates included

## Benefits

- Enhanced electrical safety
- Increased compliance to NFPA 70E / CSA Z462
- Reduced PPE
- Closed-door infrared inspections
- Largest field of view of any round IR window

## Testing and Certifications

- Impact and Pressure Test per UL 1558
- UL 50V
- IEEE C37 20.2 Annex A. 3.6 Impact and Load:
- IP65, IP2X
- Lloyds of London Type Approval
- American Bureau of Shipping (ABS)
- CSA C22.2 No. 14
- UL Type 1, 2, 3, 3R, 2, 5


W-R Series

| Part # | Body Diameter | Window Diameter | Assembly Thickness |
|---|---|---|---|
| **W-RT21** Transparent* | 3.6 in (91 mm) | 2.0 in (51 mm) | 1.0 in (25.4 mm) |
| **W-RT31** Transparent* | 4.8 in (121 mm) | 3.0 in (76 mm) | 1.0 in (25.4 mm) |
| **W-RT41** Transparent* | 5.95 in (151 mm) | 4.0 in (102 mm) | 1.0 in (25.4 mm) |

*Opaque available upon request

| Other | |
|---|---|
| Useful Temperature Rating | -40°F (-40°C) to 392°F (200°C) |
| Water and Dust Ingress | IP65 / NEMA 4: closed and when in use |

| MATERIALS | |
|---|---|
| Optic | UL 746 compliant, visual, UV and IR transmissive polymer; -40°F (-40°C) to 617°F (325°C) |
| Gaskets | UL 94 5VA TPE; -40°F (-40°C) to 523°F (273°C) |
| Hardware | 316 stainless steel |
| Reinforcing Grill | Aluminum coated with UL 94 5VA Nylon -40°F (-40°C) to 523°F (273°C) |
| Window Housing and Cover | UL 94 5VA Nylon (switchgear-grade plastic); -40°F (-40°C) to 523°F (273°C); aluminum |

RoHS c UL us E364896 C SA US 289273

GRACE ENGINEERED PRODUCTS, INC


DS:IR Window_MR Series: 5/2014


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# W-R11N

While the W-R11N is small in size, it is still big on features. The polymer lens material and switchgear-grade plastics assures compliance by maintaining an IP65/NEMA 4 seal whether open or closed. This keeps your equipment in a closed and guarded condition, allowing your thermographers to work safely and efficiently.

**Features:**

- Made especially for small targets or small IR camera lens apertures
- Rotating cover maintains IP65/ NEMA 4 seal when closed and open
- 1.2 cm (.5 in) port complies with IP2x standard for safe maximum hole size in switchgear to prevent accidental insertion of tools and body parts
- Bodies manufactured using non-conductive, UL 94 switchgear-grade plastics, insulated to 30kV/mm
- Impact and flame resistant as per UL and IEEE standards

W-R11N

# W-R11E

W-R11E standardizes location for ultrasound testing. The method for accessing and creating quality acoustic data is consistent easily identifing potentially hazardous faults such as arcing, tracking, and corona in electrical distribution systems and switchgear. The grill allows for ultrasound testing but prevents objects being pushed through the hole into the panel.

**Features:**

- Rotating cover maintains IP65 NEMA 4 seal when closed
- Bodies manufactured using non-conductive, UL 94 switchgear grade plastics, insulated to 30kV/mm
- 1.2 cm (.5 in) port opening complies with IP2x standard for safe maximum hole size in switchgear to prevent accidental insertion of tools and body parts
- Impact and flame resistant as per UL and IEEE standards

W-R11E

# W-RY Series: For Those Who Want Crystal Windows

Calcium Fluoride (CaF2) has long been used in research applications. It performs best in controlled environments where humidity, chemical exposure, vibration, and high frequency noise are minimized or eliminated.

The transmission rate characteristics of CaF2 are ideal for higher temperature applications, shortwave and midwave thermography, and for the visual spectrum. Medium- to longwave transmission rates (7-14 micron) are typically between 50% and 65% based on the infrared camera detector sensitivities at different wavelengths.

W-RY Series is specifically coated to reduce the transmission drift due to moisture and humidity. However, industrial users are strongly encouraged to investigate the W-RT and W-MC series of industrial-grade polymer IR viewing windows, which are specifically designed for stability in harsh industrial environments.

- Compatible with all IR cameras
- Housing made of switchgear-grade plastics
- Stainless steel cover
- Available in 2”, 3”, and 4” sizes (actual crystal viewing area)
- Fitting instructions and templates included

| Part # | Body Diameter | Window Diameter | Assembly Thickness |
|---|---|---|---|
| **W-RY21** Round CaF2 | 3.6 in (91 mm) | 2.0 in (51 mm) | 1.0 in (25.4 mm) |
| **W-RY31** Round CaF2 | 4.8 in (121 mm) | 3.0 in (76 mm) | 1.0 in (25.4 mm) |
| **W-RY41** Round CaF2 | 5.95 in (151 mm) | 4.0 in (102 mm) | 1.0 in (25.4 mm) |


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