

# CV Series ClirVu® Infrared Windows

## Technical Data

### Compliance without compromise. Safety without sacrifice.

Increase the safety and speed of electrical thermal imaging inspections with the new Fluke ClirVu® IR Windows. Reduce the risk of arc-flash and electrocution, increase the safety of your personnel and reduce the time and cost of preventive maintenance.

- No more removing the panel door for installation
- Work permit requirements and NFPA 70E processes are significantly reduced
- Full PPE is often not required so inspections are done faster and more comfortable



- Superior arc blast protection:
  - High temperature silicon gaskets
  - Mounting and door latches provide high pressure gasket compression
  - Die cast components are manufactured with the highest strength alloys (ZA-27 and EZAC)
  - Jam nut screws are made from 4037 steel, heat treated to 160,000 psi tensile
- Torture Tested to the highest test ratings
  - IEEE C37.20.7 63 kA Arc tested at KEMA, UL 50/50E/50V, UL1558, IEC60529-1: IP67, IEC 60068, NEMA 4/12, CSA C22.2 NO. 14-13:2012, and CE
- Quick and easy installation
  - Installation takes **5 minutes** with one technician
  - Only one hole necessary with standard Greenlee® punch. Rear access required for punch connection only (Easily accomplished with one technician)
  - Installs from front; no template needed; no rear access required
  - Grounds instantly to metal enclosure with patent pending AutoGround™ process
  - Sharp teeth on jam nuts assure four gas-tight ground connections
  - All components have electrically conductive finishes for optimum grounding
- Quarter turn latch easily opens hinged cover
- Corrosion and UV resistance for challenging outdoor environments:
  - All hardware is made from stainless steel or zinc plated steel
  - Die cast components are plated with black chromium over high phosphorous Electroless nickel
- Three sizes 50 mm, 75 mm and 95 mm (2 in , 3 in and 4 in) with the option of hand turn or security key door latches



## Specifications

| Model                                         | CV400                                                                     | CV401        | CV300                    | CV301        | CV200                    | CV201        |
|-----------------------------------------------|---------------------------------------------------------------------------|--------------|--------------------------|--------------|--------------------------|--------------|
| Size                                          | 95 mm (4 in)                                                              |              | 75 mm (3 in)             |              | 50 mm (2 in)             |              |
| Voltage range                                 | Any                                                                       |              |                          |              |                          |              |
| NEMA environment type                         | Type 4/12 (indoor/outdoor)                                                |              |                          |              |                          |              |
| AutoGround™                                   | Yes                                                                       |              |                          |              |                          |              |
| ClirVu® optic                                 | Yes                                                                       |              |                          |              |                          |              |
| Operating temperature                         | -40 °C to +232 °C (-40 ° F to +450 °F) and +260 °C (500 °F) Intermittent  |              |                          |              |                          |              |
| Body material                                 | EZAC and ZA-27 high strength zinc/aluminum alloy                          |              |                          |              |                          |              |
| Gasket material                               | Specification grade silicone rubber per MIL spec ZZR-765, Class 2A or 2B  |              |                          |              |                          |              |
| Hardware material                             | Stainless steel and plated 160,000 PSI alloy steel to 300 hour salt spray |              |                          |              |                          |              |
| Compatible with all Fluke cameras             | Yes                                                                       |              |                          |              |                          |              |
| Jam nut locking system™                       | Yes                                                                       |              |                          |              |                          |              |
| Cover and fastener permanently attached       | Yes                                                                       |              |                          |              |                          |              |
| Single-hole install                           | Yes                                                                       |              |                          |              |                          |              |
| Hand turn and security key door latch options | Yes                                                                       |              |                          |              |                          |              |
| Visual inspection and fusion capable          | Yes                                                                       |              |                          |              |                          |              |
| Short/Mid/Long-wave IR and UV capable         | Yes                                                                       |              |                          |              |                          |              |
| Ratings and testing                           |                                                                           |              |                          |              |                          |              |
| Arc-tested (IEEE C37.20.7)                    | 63 kA for 30 cycles @ 60 Hz at KEMA                                       |              |                          |              |                          |              |
| UL 50V component recognition                  | Yes                                                                       |              |                          |              |                          |              |
| UL 50 /NEMA environmental rating              | NEMA Type 4/12                                                            |              |                          |              |                          |              |
| UL1558                                        | Yes                                                                       |              |                          |              |                          |              |
| CSA C22.2 No.                                 | Yes                                                                       |              |                          |              |                          |              |
| CSA type rating                               | Type 4                                                                    |              |                          |              |                          |              |
| IP rating                                     | IP67 at TUV                                                               |              |                          |              |                          |              |
| Lloyds register                               | Up to 11 kV marine switchgear, indoor or outdoor (offshore only)          |              |                          |              |                          |              |
| Vibration rating                              | IEC60068-2-6 at TUV                                                       |              |                          |              |                          |              |
| Humidity rating                               | IEC60068-2-3 at TUV                                                       |              |                          |              |                          |              |
| Install                                       |                                                                           |              |                          |              |                          |              |
| Actual mounting hole diameter required        | 115.42 mm (4.544 in)                                                      |              | 89.89 mm (3.539 in)      |              | 61.37 mm (2.416 in)      |              |
| Greenlee® punch kit = punch/die               | 742BB = 2984AV/2983AV                                                     |              | 739BB = 1431AV/1432AV    |              | 76BB = 441AV/442AV       |              |
| Recommended max panel thickness               | 10 gage                                                                   |              |                          |              |                          |              |
| Overall window height                         | 189.3 mm (7.45 in)                                                        |              | 141.5 mm (5.57 in)       |              | 112.9 mm (4.45 in)       |              |
| Overall window width                          | 147.1 mm (5.79 in)                                                        |              | 111.5 mm (4.39 in)       |              | 83.0 mm (3.27 in)        |              |
| Overall window thickness                      | 23.0 mm (0.90 in)                                                         |              | 16.2 mm (0.64 in)        |              | 16.2 mm (0.64 in)        |              |
| Door latch                                    | Hand Turn                                                                 | Security Key | Hand Turn                | Security Key | Hand Turn                | Security Key |
| Optics                                        |                                                                           |              |                          |              |                          |              |
| Optic insert diameter                         | 95 mm (3.74 in)                                                           |              | 75 mm (2.96 in)          |              | 50 mm (1.97 in)          |              |
| Viewing aperture diameter                     | 87.63 mm (3.450 in)                                                       |              | 67.95 mm (2.675 in)      |              | 42.93 mm (1.690 in)      |              |
| Viewing aperture area                         | 6032 sq.mm (9.35 sq.in)                                                   |              | 3626 sq.mm (5.62 sq. in) |              | 1445 sq.mm (2.24 sq. in) |              |
| Thickness                                     | 4 mm (0.16 in)                                                            |              | 2 mm (0.08 in)           |              |                          |              |
| Other                                         |                                                                           |              |                          |              |                          |              |
| Warranty                                      | Lifetime replacement against manufacturing defects                        |              |                          |              |                          |              |

**Quick and easy install – 5 minutes, a standard hole punch and a torque wrench is all you need.**



## Ordering information

**CV200** 2 in (50 mm) IR Window, Hand Turn Door Latch  
**CV201** 2 in (50 mm) IR Window, Security Key Door Latch  
**CV300** 3 in (75 mm) IR Window, Hand Turn Door Latch  
**CV301** 3 in (75 mm) IR Window, Security Key Door Latch  
**CV400** 4 in (95 mm) IR Window, Hand Turn Door Latch  
**CV401** 4 in (95 mm) IR Window, Security Key Door Latch

### Included with product

Fluke IR Windows are supplied complete, assembled and ready for installation. In addition to the IR Window each carton contains warranty statement and security key if that option is ordered.

Find out more information at **[www.fluke.com/irwindows](http://www.fluke.com/irwindows)**

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