

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.

TRANSCAT®

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