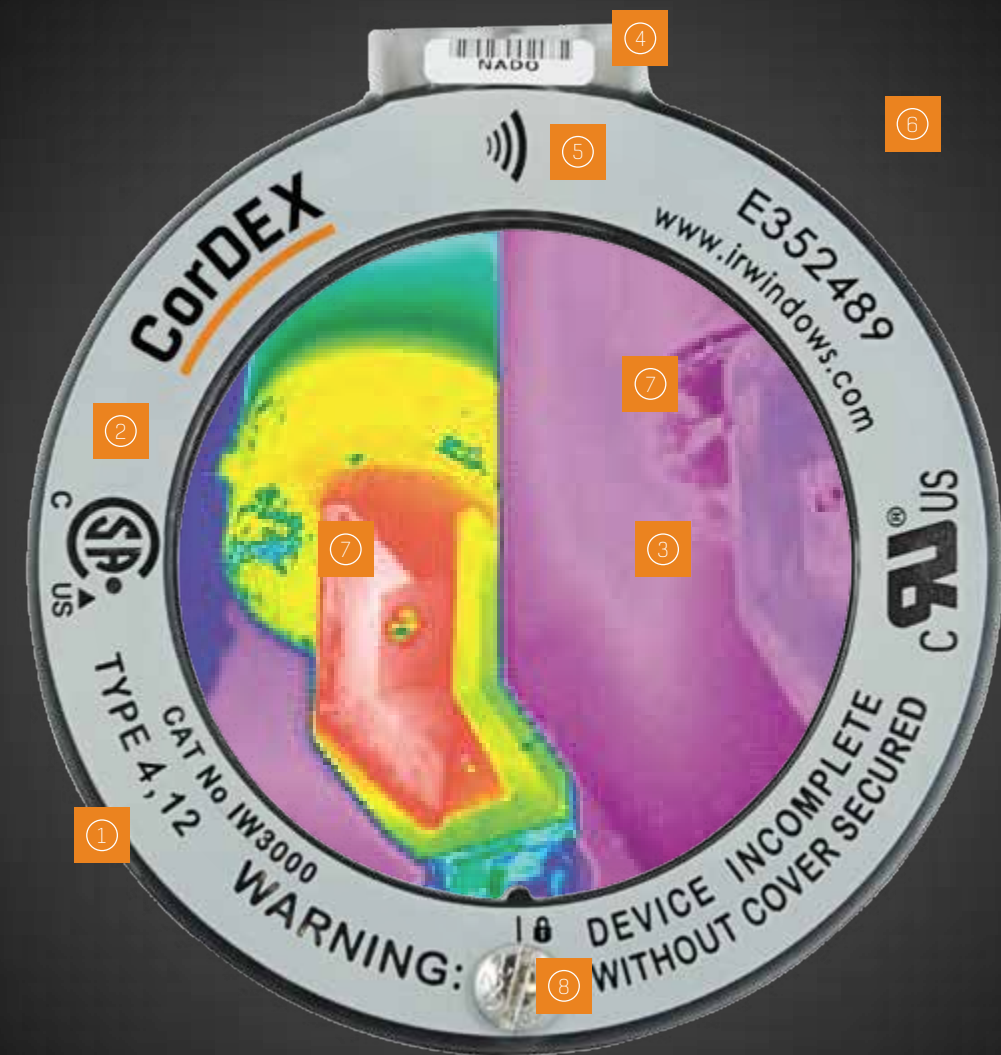


INFRARED WINDOWS

Are you concerned about Arc-Flash but understand the benefit of Infrared Inspections? Then you need IR Windows. Protect your equipment, your plant and your personnel using the next generation of IR Windows from CorDEX. The IW Series SMART IR Windows are not only cost effective, simple to install and extremely rugged, but they are SMART too. Incorporating an embedded RFID tag, each UL and CSA Recognised SMART IR Window can communicate wirelessly with any suitably RFID enabled device providing a unique serial number wirelessly.

WHY CHOOSE OUR SMART INFRARED WINDOWS?

The IW Series is the latest generation of **SAFIR SMART IR Windows** from CorDEX Instruments. The IW Series infrared window operates with any thermal imager, helping take electrical inspection and predictive maintenance to a new level of safety, efficiency and accuracy.



Infrared Windows

Infrared Windows

1

Low profile design

Why?

Smooth, rounded edges, slim profile and typical switchgear colouring match your host equipment perfectly, for a seamless installation.

3

Impact resistant clear cover

Why?

Protect your investment and maximize your return. The impact resistant clear cover helps prevent accidental damage whilst at the same time allowing visual inspection and confirmation of equipment status.

2

Anodised aluminium housing

Why?

Your switchgear body is made of metal, so your IR Window body should be also. Ensure you are not at risk of electric shock with this fully grounded, corrosion protected design.

4

Spring loaded hinge

Why?

Avoid crowded panels restricting your view. Install IW Series in any orientation and its spring loaded hinge will open and hold the cover automatically while you perform your survey.

5

13.5Mhz RFID tag

Why?

Wirelessly identify each IR Window with its unique, embedded RFID tag. Build databases of your IR Window inspections with any 13.5Mhz RFID enabled tool, or take advantage of CorDEX CONNECT software and enabled tools to do it for you!

7

Broadband, HYDROGARD™ coated crystal

Why?

Operates with any camera; digital, infrared or ultraviolet, the HydroGARD coated optic is designed to be flexible and last the test of time.

6

Delivered fully assembled

Why?

No need to waste time and lose parts by removing screws and reassembling. Simply open the package, install and go.

8

¼ turn quick release mechanism

Why?

Captive ¼ turn locking mechanism saves you money every time you use it. Simply twist the key 90 degrees and the IR Window automatically opens.

IW SERIES

The latest generation of **SMART Infrared Windows** for **low, medium and high voltage** applications.



FEATURES

The IW Series are fully certified and tested to the following standards: **UL50, UL50V and UL1558**

Manufactured from industrial grade materials proven to withstand electric arcs

Efficient 1/4 turn locking system

Intelligent multiple identification system for each individual window

Arc flash tested against a 50kA short circuit for 1 second at 11kV

CorDEX IW Series SMART Infrared Windows.

The IW Series is manufactured from industrial grade materials designed to withstand electrical arcs and certified by Underwritten Laboratories (UL) to follow the very latest IR window standards. Install the certified, IW Series SMART IR Windows to help comply with NFPA70E electrical safety guidelines and reduce the need to wear large and bulky PPE.

Take a look before you shoot with the high security, spring loaded impact cover. With IW Series, there is no need for second visual inspection windows in addition to your IR Windows, as you can confirm switch positions for lock-out tag-out compliance with the same Window as you shoot IR. Maximise your investment, don't throw away

your IR Windows when you change your equipment. The fully removable IW Series IR Windows can be used again and again, outliving the life of your equipment.

Through intelligent design and special features, the IW Series reduces the time it takes to perform inspections. With the ¼ turn locking system and spring loaded cover it reduces your time per inspection.

The IW Series crystal lens is also protected with HYDROGARD™ advanced formula to stop environmental moisture damage allowing the windows to be used both indoor and outdoor.

PRODUCT OVERVIEW

Optic/Crystal Data	IW2000	IW3000	IW4000
Crystal Insert Diameter	50mm (2in)	80mm (3.2in)	100mm (3.9in)
Viewing aperture diameter	45mm (1.8in)	73mm (2.9in)	93mm (3.7in)
Viewing aperture area	1591mm ² (2.5in ²)	4186mm ² (5.6in ²)	6794mm ² (9.79in ²)
Thickness	2mm (0.08in)	2mm (0.08in)	4mm (0.16in)
HYDROGARD™ Coating		Yes	
Shortwave IR capable		Yes	
Midwave IR capable		Yes	
Longwave IR capable		Yes	
Ultraviolet (UV) capable		Yes	
Visual capable		Yes	
Fusion capable		Yes	

Certification

Underwriters laboratories (UL) recognised	Yes
UL50	Type 4/12
UL746C, UL94, UL50V, UL1558	Yes
Sira IP65	Yes

General Specification

Maximum Temperature	Gaskets: 250°C (482°F) Body: 659°C (1218°F) Optic: 1400°C (2552°F)
Gaskets	Low smoke and fume (LSF) compliant silicone
NEMA rating	Type 4/12 (UL Third Party Certified)
Vibration rating	IEC60068-2-6
Humidity rating	IEC60068-2-3
Warranty	Lifetime replacement against manufacturing defects

	Window Aperture	Diameter	Depth
IW2000	45mm (1.8in)	77mm (3.0in)	19.5mm (0.8in)
IW3000	73mm (2.9in)	103mm (4.1in)	19.5mm (0.8in)
IW4000	92mm (3.7in)	123mm (4.9in)	21.5mm (0.85in)



Embedded RFID chip enables open-architecture databasing with any compatible RFID enabled device. Use with CorDEX CONNECT enabled imagers for automatic transmission correct and reporting



HYDROGARD™ coated broadband optic, impervious to moisture, mild acids and alkalis – guaranteed



Spring loaded impact cover, automatically raises and holds during your IR scan in any orientation

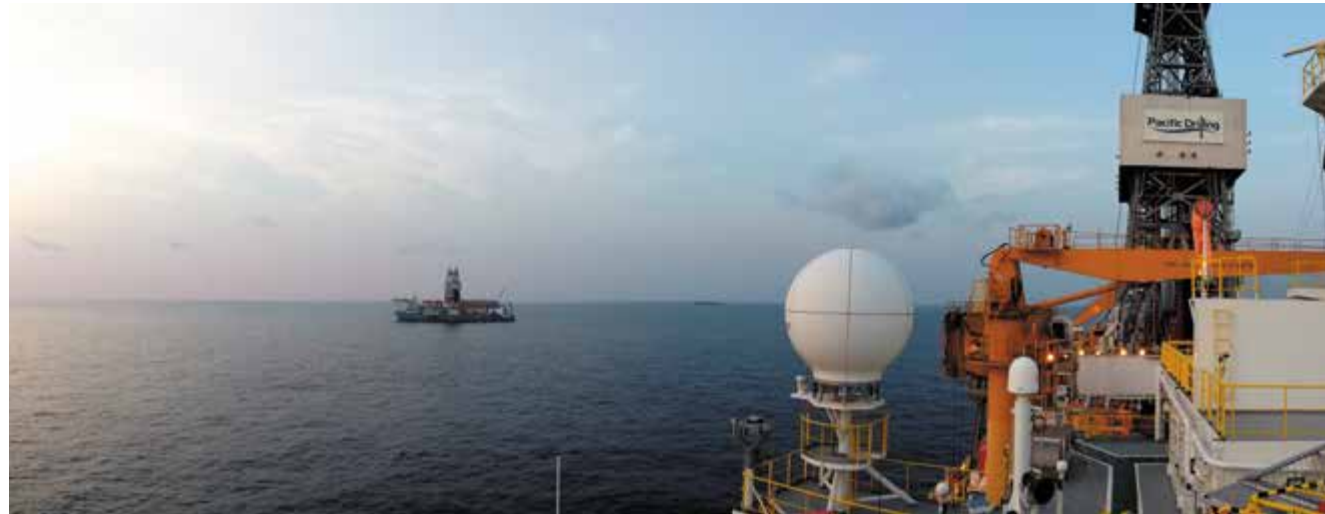


SMART tools working together, saving you time and money. Go to page 19 for the TC7150 RFID enabled thermal imager.

CorDEX reserve the right to make changes to the instrument at anytime and without notice.

Case Study

Pacific Drilling Opts for Geo Therm Ltd and CorDEX Infrared Windows



This panoramic view of a Nigerian sunset was shot from Pacific Drilling's drillship Pacific Khamsin with the Pacific Bora drillship in the background. Both vessels opted for the CorDEX IW3000 and IW4000 range of infrared windows that meet with the 11kV transformer rating needs. Geo Therm Ltd (a UK offshore oil and gas inspection and service company) successfully installed more than 240 units per vessel in less than eight days, using a two-man team of offshore service technicians.

The CorDEX range of infrared windows provides a safe, non-invasive means to perform regular visual and periodic thermographic (hotspot) survey inspections and PMs into HV equipment up to 11kV. This is done without fear of electrocution or arc flash. When used in conjunction with the CorDEX Ex-rated range of visual and infrared cameras, all PTW paperwork is further reduced, as is the need to don bulky arc flash PPE suites. Line of sight is now governed by the infrared camera movement and the strategic placement of the infrared window to capture as much as is feasibly practicable of transformer terminations and windings. This is instead of shutting down equipment to open covers or defeat interlocked doors to perform live or residual surveys, both of which have safety and operational limitations.

Designed with safety and quality in mind, the IW range of infrared windows offers clear, unobstructed acuity into energised electrical equipment, while compliant to the NFPA 70E Regulation, as each unit protects personnel by reducing exposure to major electrical hazards. Additionally, their ease of installation, usability and durability have contributed toward CorDEX Instruments Ltd being recognised as one of Europe's leading Ex-rated equipment manufacturers, winning the Queen's Award for International Trade in 2014.



In servicing Pacific Drilling's fleet of high-specification, ultra-deepwater drillships, Geo Therm Ltd's professional installation service teams retrofit the CorDEX IW range of infrared window orders. This helps towards the performance of the annual offshore electrical thermographic survey inspections on the various rig-wide switchboards and HV transformers.

Name: Tony Dale
Company: Geo Therm Ltd

Geo Therm Ltd provide Thermal Imaging Surveys and condition based monitoring services.

www.geothermltd.co.uk

THE INTRINSICALLY SAFE THERMAL IMAGING CAMERA

Tough, safe and accurate, **TC7000/TC7150** is the **thermal imaging camera** of choice for oil, gas mining, marine and dust environments.



CONNECT



Infrared Windows