

# CorDEX

## INSTRUMENTS

SAFER | FASTER | BETTER

### Infrared Window Solutions

IW Series – Intelligent IR Windows



“Installing CorDEX Intelligent IR Windows is a cost effective method for performing thermal surveys in accordance with NFPA70E requirements.”

Thomas Swan, UK & US

“We highly recommend CorDEX Intelligent IR Windows as they save time and money whilst keeping personnel safe.”

L H Group, UK



Get More For Less

## [SAFE]

- » Manufactured using time proven broadband crystal and aluminum materials.
- » Certified by Underwriters Laboratories (UL) to the latest UL50V standards for type 3/12 equipment.
- » Fully grounded design eliminates the risk of electric shock.

## [EFFICIENT]

- » Incorporating a patent pending quick release spring loaded cover needing only 1/4 turn to open, the IW Series Windows saves you dollars every time you use it!
- » Supplied fully assembled from the factory, the IW Series Window does not require on-site gasket assembly.
- » Removable/Reusable design means you can reuse the IW Series Intelligent IR Window on new/replacement switchgear.

## [INTELLIGENT]

- » Downloadable transmission correction information gives maximum accuracy.
- » Embedded RFID tag and barcode enables individual Window identification.
- » Reference images, temperature correction, route planning & much more using CorDEX CONNECT™ and RoutePLANNIR™.



## Benefits

The latest generation of Intelligent IR Windows from CorDEX Instruments take electrical inspection and predictive maintenance to a new level of safety, efficiency and accuracy. Every IW Series Intelligent IR Window comes with the following great features;

### [SAFETY]

Manufactured from industrial grade materials proven to withstand electric arcs, the IW Series Intelligent IR Windows help maximise your inspection safety. The IW Series Intelligent IR Windows are also Underwriters Laboratories (UL) recognized to the latest IR window standards.

### [SPEED]

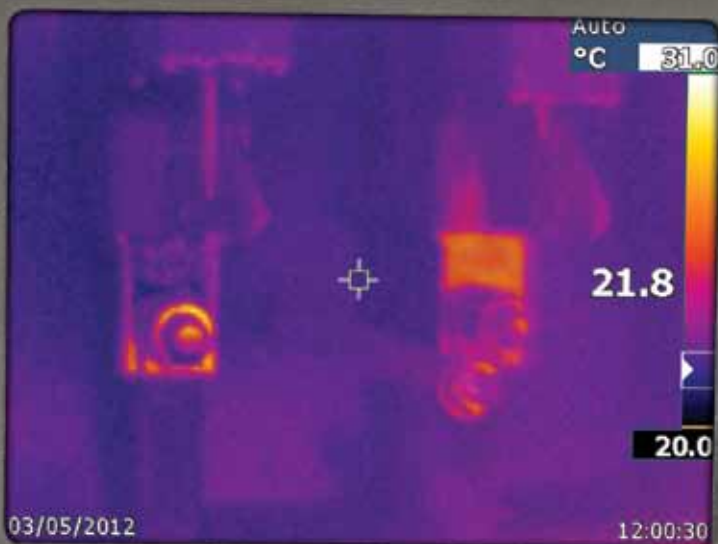
No more wasting time removing multiple bolts. Using a simple quarter turn fixing and spring loaded hinged cover, the time taken to perform an inspection is dramatically reduced saving you both time and money.

### [COMPATIBILITY]

The IW Series Intelligent IR Windows are supplied with downloadable CorDEX CONNECT™ cross platform database and RoutePLANNIR™ PDA software allowing users to; create route based schedules, annotated reports, correct transmission and export data cross linked to each individual Intelligent IR Window.

### [FLEXIBILITY]

Maximize your investment, don't let IR Windows retire with your old equipment, the IW Series Intelligent IR Windows are completely removable and reusable, helping reduce future capital costs.



### [INTELLIGENCE]

Every IW Series Intelligent IR Window includes a unique multiple tagging system allowing users to download specific calibration maps, transmission correction data and algorithms for each IR Window.

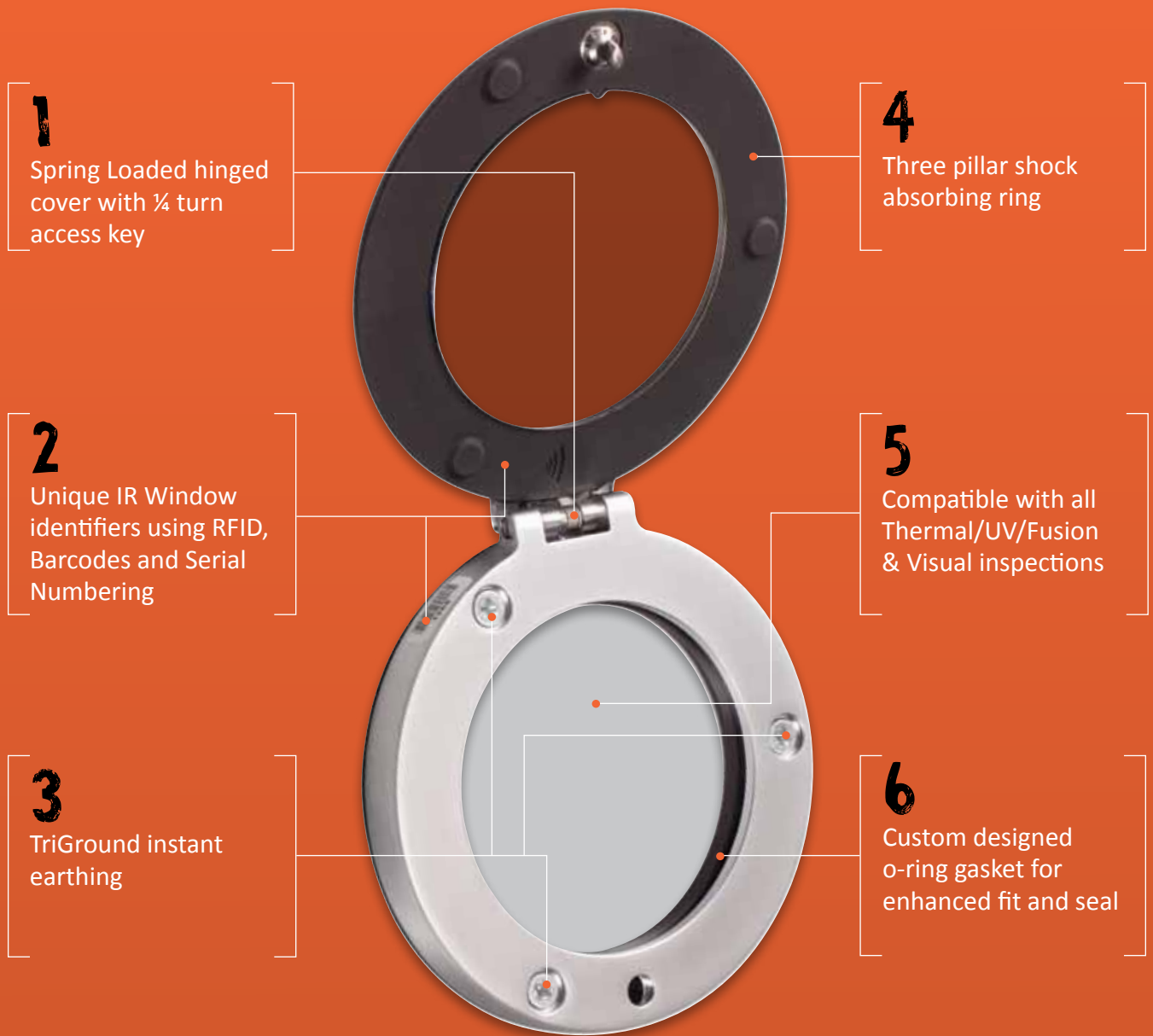
### [LONGEVITY]

Each IW Series Intelligent IR Window uses broadband IR crystal optics with HydroGARD™ protective coating to prevent moisture degradation. Rigorously tested to International Standards, the IW Series Intelligent IR Windows will remain crystal clear for the life of the installation.

## Key Features

With over 60 years combined experience in the infrared windows and thermography market, CorDEX Instruments understands your IR Window needs. In the IW Series Intelligent IR Windows, CorDEX Instruments provides a **Safe, Intelligent** and **Efficient** solution to your electrical inspection requirements.

6 reasons why you should choose the CorDEX Instruments IW Series Intelligent IR Windows:-



## Features

### Durable

#### Certification

The IW3000 and IW4000 Windows are fully certified and tested to the following standards: UL50, UL50V, UL1558

#### Intrinsic fit O-ring Gasket

The O-ring gasket on the IW Series Intelligent IR Windows uses a unique design to give the gasket an intrinsic fit. With dual ridge design, the O-ring gaskets fit closer and tighter into the unit, giving a greatly improved fit to your panel.

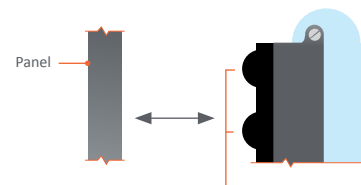
#### HydroGARD™ Coated broadband crystal

HydroGARD™ – The IW3000 and IW4000 Windows are specially coated with an advanced formula designed to protect the crystal from moisture degradation. The protective coating allows the windows to be used both indoor and outdoor without the need for differing models or part numbers.

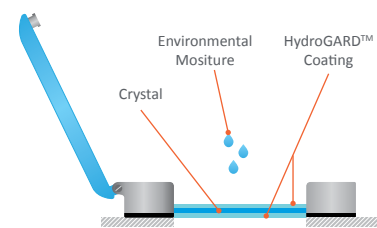
CorDEX Instruments are so confident about the IW3000 and IW4000 Windows that we offer a lifetime warranty against any manufacturing defects.



#### Water Tight Gasket



Custom gasket with dual compression rings



### Intelligent

#### Intelligent Window Identity

Each IW3000 and IW4000 Window is easily identifiable through three different methods:

- » Serial No Identification
- » Barcode Identification
- » In-built 13.56 MHz RFID tag



RFID

4571

Serial Number



Barcode

### Efficient

#### 1/4 turn locking system

1/4 turn locking system, allows for quick and easy access, saving up to 10 seconds per IW Series Window when compared with other IR window manufacturers. The IW3000 and IW4000 Windows also include a spring loaded cover, reducing the risk of losing or damaging the Window cover.



#### Easy-to-install design

From removing the Window out of its packaging to fitting it in the panel the IW Series Window will save you time and money. The Windows come as pre-built units and only need to be attached to the panel.



Accuracy made easy

## RoutePLANNIR

RoutePLANNIR™ is an intelligent portable PDA and software package that allows you to obtain transmission correction data whilst on site thereby enabling you to achieve accurate and reliable readings. RoutePLANNIR™ also offers the ability to save readings against the RFID, Barcode or Serial Number of each individual IW Series Intelligent Infrared Window.

### Transmission Correction Curves

The IW Series Infrared Windows undergo a stringent calibration sequence. Each individual Window is thoroughly tested in a transmission calibration chamber, using a calibrated thermal imager and blackbody sources to determine correction data for that window.

Using data collected in the transmission chamber software automatically records the data collected and creates a unique transmission correction algorithm. The software then produces a graph showing the actual and best fit lines. Correction curves are then made available to thermographers via the internet using RFID Tags, Barcodes or Serial Numbers.

### Route Planning / Reporting

CorDEX CONNECT™ and the RoutePLANNIR™ software packages give you the ability to, track, monitor and correct data that is collected from individual Windows. Using the RFID & Barcoding features, you can input and log readings against individual Windows whilst on site or access specific transmission correction figures or create maintenance scheduling and route planning on areas of concern.

RoutePLANNIR™ directly links into the CorDEX CONNECT™ software, giving you the ability to edit and annotate your infrared images, whilst referencing readings taken against the specific IW Series Window in professional reports.



## IW3000 & IW4000



### Description

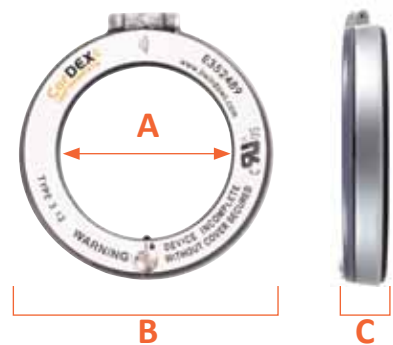
The IW3000 and IW4000 Series of Intelligent IR Windows are the next step forward in infrared (IR), ultraviolet (UV), Fusion and visual inspection of live electrical components. The IW Series Intelligent IR Windows expand on industry proven techniques and materials to bring a rugged but flexible Intelligent IR Window incorporating transmission correction information and routeplanning software in one high value package.

### Features

The IW3000/IW4000 IR Windows are packed with the following features;

- » UL recognised for type 3/12 installations both indoor and outdoor
- » Broadband crystal allows Thermal/UV/ Fusion and Visual inspections
- » Data correction maps available through RoutePLANNIR™ & CorDEX CONNECT™

	A	B	C
IW3000	73mm (2.9in)	103mm (4.1in)	19.5mm (0.8in)
IW4000	92mm (3.7in)	123mm (4.9in)	21.5mm (0.85in)



### Supplied with

- » IW3000/IW4000 (order dependant)
- » Installation Instructions
- » Installation Drill template
- » CorDEX Instruments Access Key
- » Fixing Screws

Specifications		
Crystal Insert Diameter	80mm (3.2in)	100mm (3.9in)
Viewing aperture diameter	73mm (2.9in)	93mm (3.7in)
Viewing aperture area	4186mm <sup>2</sup> (5.6in <sup>2</sup> )	6794mm <sup>2</sup> (9.79in <sup>2</sup> )
Thickness	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
Ingress Protection		Yes
Certification		
Underwriters laboratories (UL) recognised		Yes
UL50		Type 3/12
UL746C		Yes
UL94		Yes
UL50V		Yes
UL1558		Yes
General Specifications		
Maximum Temperature	Gaskets:	250°C (482°F)
	Body:	659°C (1218°F)
	Optic:	1400°C (2552°F)
NEMA rating	Type 3/12 (UL Third Party Certified)	
Vibration rating	IEC60068-2-6	
Humidity rating	IEC60068-2-3	
Warranty	Lifetime replacement against manufacturing defects	

CorDEX Instruments is a leading UK manufacturer of hand-held intrinsically safe and non destructive testing devices that are used around the world. Our team has a combined 60 years' experience in the infrared and thermal imaging market and we have applied this to enhance our technology, making it more efficient and intelligent, whilst increasing functionality.

CorDEX Instruments has the expertise and technology to support your Infrared (IR) windows and thermal imaging needs. Our bespoke handheld products are designed to deliver the most robust infrared inspections and are tested to the highest standards.

The risk of arc flash hazards is only too real across many industries, but CorDEX has built up an enviable reputation in developing products custom built for hazardous environments. This means infrared inspections can be carried out with and in keeping with the NFPA70E requirements for bulky protective clothing.

Our IW Series of Intelligent IR Windows are fully certified and tested to UL50, UL50V and UL1558 and take inspection and predictive maintenance to a new level of safety, efficiency and accuracy at a highly competitive price.

CorDEX is dedicated to investing in research and development and has built a strong track record with our custom designed products making it safer and faster to work in hazardous environments.

Our IR windows and thermal imaging products can be accessed via an established network of distributors across the USA, South America, Australasia, Europe and the Middle East.

### UK Headquarters

**Email**

sales@cord-ex.com

**Phone**

+44 (0)1642 454373

**Fax**

+44 (0)1904 352415

**CorDEX Instruments Ltd.**

Unit 1 Owens Road,  
Skippers Lane Industrial Estate,  
Middlesbrough  
TS6 6HE

### US Office

**Email**

us.sales@cord-ex.com

**Phone**

1 877 8360764

**CorDEX Instruments Inc.**

5309 Monroe Road  
Charlotte  
NC 28205

### Aberdeen Office

**Email**

aberdeen.sales@cord-ex.com

**Phone**

+44 (0)1224 841370

**Fax**

+44 (0)1904 352415

**CorDEX Instruments Ltd.**

1 Berry Street  
Aberdeen  
AB25 1H