IRIS-IX8

Bi-Spectrum Temperature Measurement Camera

QUICK START GUIDE

Any object with a temperature higher than absolute zero (-273.15°F) will emit infrared (IR) radiation known as Thermal Radiation. The IX8 Bi-Spectrum detector from Iris Innovations combines a high definition visual-spectrum camera with a highly sensitive thermal imaging camera designed to absorb the thermal radiation emitted or reflected by objects in order to produce a visual representation of the scene. As the IX8 uses this thermal radiation to generate an image, it can also be used as an extremely sensitive tool to detect the temperature of objects. This information, combined with the visual image can then be combined to create a very efficient, highly sensitive temperature monitoring and measurement tool - perfect for deployment in critical areas such as engine rooms, electrical distribution cabinets and panels, where the need to thermally manage instruments and areas is vital.

In addition to the thermal detector and the high definition visual spectrum camera, the IX incorporates a feature packed user interface which allows the user to define and configure alarm criteria, such as over-heat alarms, temperature change alarms and zone alarms, record temperature history logs, adjust detection ranges, enhance the image by combining edge detection from the visible camera over the thermal image, select thermal palettes and many more useful features then combine to make the IX8 an extremely powerful safety and monitoring tool.

Key Features Include:

- Compact & Rugged Device
- IP66 Environmental Rating
- Adjustable Detection Ranges
- 384 x 288 Resolution Thermal Detector
- 2MP HD Resolution Visual Spectrum Camera
- Connect over IP Network
- Composite Video (CVBS) Output
- Cost Effective, Versatile and Highly Accurate Alarm Sensor
- Easy to Install and Setup

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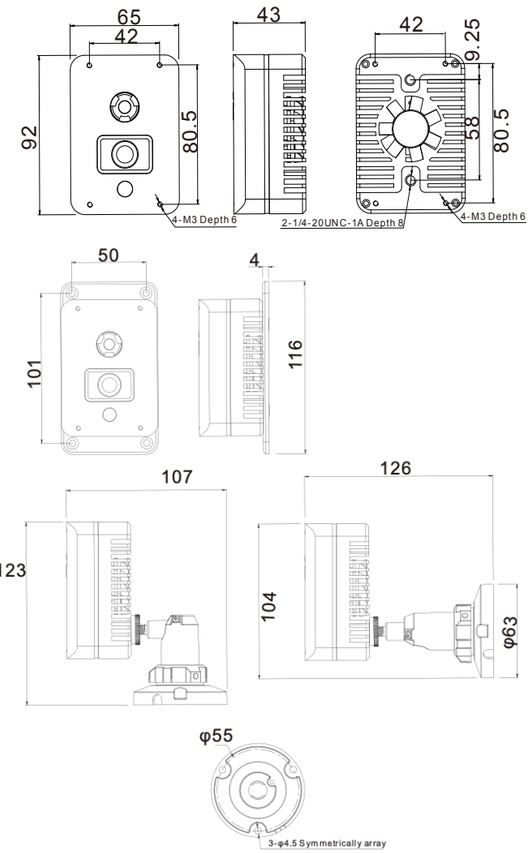


What's in the Box?

Upon receipt of your IX8 camera, please check to ensure the following parts and accessories are included in the box. If anything is missing, please contact your vendor.

1 x IRIS-IX8 Camera
1 x Fixing Template
1 x Quick Start Guide
1 x Mains Power Supply*
1 x Adjustable Fixing Arm Bracket
1 x Magnet Mount Panel Fixing Plate
1 x Fixing / Accessory Pack
1 x Focus Tool

Installation

There are three methods of installing the camera. An adjustable arm style bracket, a magnetic plate for mounting onto metal panels and by fixing with strong adhesive pads. Fixing with the magnetic plate and adhesive pads is only recommended for installations not prone to vibration or movement.

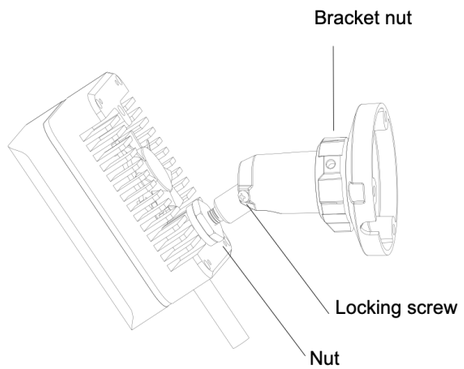
A self adhesive template sticker is included in the box. Offer the template into the mounting position ensuring there are no obstructions around or behind the area in which you intend to install the camera.

We always recommend that before fixing into place you power up the camera and view the image (either via a network connection or by connecting the composite video output into a suitable monitor, to ensure the position of the camera will allow you to view exactly what is required so you do not have to re-locate the camera in the event its installed in the wrong position.

The camera is supplied with self tapping screws. If the mounting surface cannot support this type of fixing, drill out the whole appropriate to the fixings you are using and fix into place using your own bolts and nuts. If you are installing onto a surface that will allow self tapping screws, use a pilot drill to create three holes and then screw the self tapping holes tightly to fix the bracket in place.

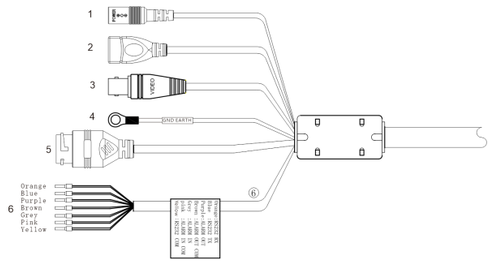
If the cables to be routed behind the fixing surface, open up a cable entry hole sufficient to pass the cable loom thats hard wired from the camera. Make sure all necessary precautions are used to waterproof the hole (such as glands or sealant) if installing in an area prone to moisture.

With the bracket in place, align the 1/4 UNC fixing hole with the bracket screw, adjust the cameras position as desired and fully tighten the lock screw. The bracket arm can be adjusted and locked into place using the bracket nut as shown in the diagram below.



Multi-Purpose Cable

The camera has a hard wired umbilical cable that breaks out into 6 individual tails which provide multiple methods of connectivity as detailed below:



No	Port	Description
1	Power	DC 12 V
2	USB	Connect USB port
3	Video port	Connect to video screen
4	G	Ground earth wire
5	Network port	Connect to a standard Ethernet cable
6	Orange	RS232 RX
	Blue	RS232 TX
	Purple	ALARM OUT
	Brown	ALARM OUT COM
	Grey	ALARM IN
	Pink	ALARM IN COM
	Yellow	RS232 COM

Power

The camera operates at 12VDC / <1A. Connect the cameras DC Power jack to your vessels DC power supply using the screw terminal connector jack supplied ensuring the correct polarity, as marked on the connector, is observed.

WARNING
Failure to observe the correct polarity or voltage conventions can result in permanent damage to the device, personal injury or death. Only connect the power supply if you know exactly what you are doing.

*A mains adapter PSU is also supply for installations / vessels with mains power.

Use with Composite Video Systems

The IX8 can be connected via your boats on-board network and the video output can be connected to a composite video input (1V P-P / 75Ω).

When using the camera as part of an analogue system, the composite video is set by default, to output PAL format with the camera set to Thermal Mode. A temperature scale is shown on the right hand side of the screen and the hottest part of the scene is indicated by a cursor, which will move to the hottest object in the frame at any point in time.

The following features / settings are also configured as default:

- Highest Object Temperature Indicator Icon
- Low Object Temperature Indicator Icon
- Average Temperature Display
- High Temp Warning (48˚C)
- High Temp Alarm (50˚C)

(When temperature alarms are activated, a motion alarm condition is sent over the IP network and the analogue alarm contacts will go high)

To configure the cameras numerous features you must connect to the camera via a network connection . Once logged into the browser interface, it is possible to configure various parameters and features that also apply to the composite output.

IP Systems

The IX8 supports a multitude of features. Full details can be found in the full IX8 User Guide.

To view and configure the camera on your network, connect your device to a DHCP router* and use either the router or a suitable discover tool to identify the IP address.

Enter the IP address of the camera into your browser and then use the following details to log into the cameras interface:

Default Log In Details:

User Name: admin
Password: Password1234

(Please note - values are case sensitive)

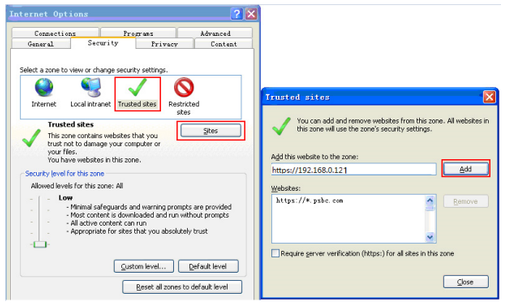
Once logged in, it is possible to set your own log in credentials. If you change the user name and password make sure you record this information safely to avoid unintentional lock-outs.

Adding the Browser Interface as a Trusted Site

Depending on your browser / software version / operating system you may find the video stream from the camera cannot be displayed so it may be necessary to add the camera's browser interface as a trusted site on your computer. The following steps demonstrate how to add the camera web page as a trusted site. This should only be necessary the first time you attempt to view the camera on your computer and these instructions may vary slightly depending on software version of your operating system / browser

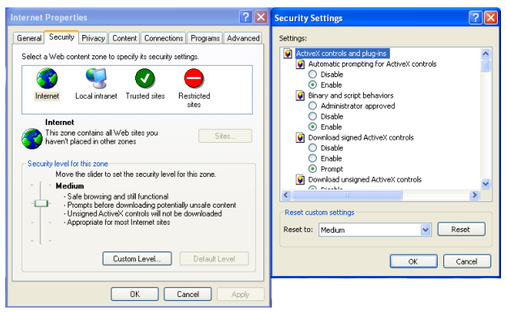
1. Open browser (Internet Explorer).

2. Choose, Tools>Internet Options>Security>Trusted Sites>SItes



3. Ensure the IP address for the camera is entered in the Trusted Sites panel and press Add.

4. In the browser select Tool>Internet Options>Security>Customer Level and check the box for Download unsigned ActiveX controls. Ensure the settings in the panel below are set:



5. Download and Install the Player as Prompted.

6. Download and Install any Plugins as Prompted.

For Full Details of you to configure the camera from the IP Browser Interface, please refer to the full IX8 User guide available from Iris Innovations, or download from the IX8 page at www.boat-cameras.com

ESSENTIAL SAFETY NOTICES:

Product Disposal and Recycling:

Dispose of this product in accordance with the WEEE Directive. The Waste Electrical and Electronic Equipment (WEEE) Directive requires the recycling of waste electronic and electrical equipment. Iris Innovations supports the WEEE policy and politely request you observe correct disposal methods. For further information on how to correctly dispose of this product please contact Iris Innovations. Please recycle unwanted packaging and documentation. The cardboard carton, all paper manuals and documents and the protective plastic bag in which the camera is shipped are widely recyclable. Please check with your local recycling plant for confirmation.

EMC Guidelines:

This camera is designed to be used as a visual aid and is not part of the vessels navigational system - even if used in conjunction with other on board equipment or third party systems - and is compliant with the EMC directive 2014/30/EC. The original Declaration of Conformity (DoC) is available from our website The camera should not be installed on the ships helm or in close proximity to radio receiver equipment. We recommend the camera is installed no closer than 1m from any equipment transmitting or cables carrying radio signals - particularly VHF radios and associated equipment. The camera should be powered from a clean 12VDC supply.

Water Ingress:

Disclaimer This product has been tested and complies with the requirements of the standard EN60529 to level IP66, however, water intrusion and subsequent equipment failure may occur is subject to commercial high pressure washing or sustained exposure to water spray. This product is not designed to be completely submerged. Any damage caused as a result of these circumstances are not covered by the product warranty.

Full product safety, warning and compliance information, including Declaration of conformity is available from

WARNING! STRICT EXPORT REGULATIONS APPLY!

This product is classified by the UK Export Control Organisation as a Dual Use item with the ECO classification 6A003B4B. Therefore this product must not be exported from the UK unless the correct procedures are adhered to and a suitable export licence is obtained. This item may also be controlled by export regulations in your territory and it is an offence to export without the necessary export licences.

For further details on export regulations and your legal responsibilities contact Iris Innovations or your local Export Control Organisation.

Failure to adhere to export control procedures could result in prosecution.

SELECTED SPECIFICATIONS:

Full specifications are listed in the complete product guide which can be downloaded from our website.

Thermal Resolution	256(H) x 192(V) - Image can be scaled to 704 x 576
Visual Spectrum Res	1920 x 1080P (2MP)
Thermal Sensitivity	<50mK
Intelligent Video Analysis	Perimeter, Single Virtual Fence, Double Virtual Fence, Object Left, Object Removed
Browser Compatibility	IE / Chrome
Viewing Mode	Thermal / Visible / Thermal + White Edges / Thermal + Black Edges / Daylight over Thermal with Temperature Information
Analogue Video Output	1VP-P CVBS PAL/NTSC 75Ω
Zoom	Digital Zoom 16x
Lens Field of View	Fixed F1.0 - H:95˚ / V: 75˚
Alarm Functions	High Temperature, low Temperature, Temperature Change, Motion Detection, Disk Alarm / I/O Alarm
Audio	2 Way (Mic & Speaker) Audio
Alarm Zones	Full Screen detection, Definable Zone detection, Privacy Zone feature
Environmental	IP66
Operating Temperature	-40˚C ~ + 150˚C
Power	400mA @ +12VDC
Weight	0.5KG
Dimensions	92(H) x 65(W) x 43(D)mm
Material	High Strength Aluminium Die-Cast, Anodysed, Anti Corrosion Coating, Nitrogen sealed.

Manufactured & Assembled in the United Kingdom

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RECYCLE & REUSE packaging materials

RoHS COMPLIANT

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