



# PRODUCT BROCHURE 23



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## Introduction

In the early 2000s, as markets were recovering from a global recession, the boating industry was experiencing a new phase of technological evolution. Newcomers to the marine electronics space were introducing fuller-featured offerings, and the groundwork was being laid for future onboard equipment integration. Purpose-built electronics were the focus, but when it came to peripherals the industry was relegated to repurposed car, home or other non-marine solution.

In 2003, we began researching camera solutions for boating and found that although people were putting them on their boats, all that were available were domestic CCTV cameras that you'd typically see in office buildings, malls or parking garages. It was due to this evident lack of rugged marine camera equipment for docking and security that IRIS was born.

Cameras at the time were made of inferior materials, which led to heavy corrosion, water ingress, and rust discoloration on the boat's gel coat. Furthermore, because there were no cameras available that had been designed specifically for leisure and luxury vessels, the cameras were big and unattractive, detracting from the elegant styling associated with the industry. The Iris team had a vision and quickly got to work on their first camera, the IRIS001, modelled on the look of a navigation light.

Since that successful introduction, Iris has developed a range of bespoke cameras and ancillary products such as switchers, recorders and thermal imagers, purpose-designed to meet the rigors of the tough marine environment. Iris went on to develop solutions for beneath the boat as well, with its underwater inspection camera system, Scubar, becoming a standard piece of tech aboard commercial vessels. It's still in use today by the British Navy and several other navies as well as the US Coast Guard. Over the course of several years, Iris's business continued to grow leading to the addition of our OEM division, which continues to manufacture cameras for several major marine electronics companies.

In 2023 Iris celebrate twenty years of business. Like many companies of our generation the journey has not been easy, but with the global economic crash of 2008 and the Covid 19 pandemic behind them, not to mention the disastrous Brexit saga inflicted on UK companies, Iris's dedication and hard work see us emerge stronger and more determined than ever.

After a management change in 2018 we refocused our underlying core values and made a decision to evolve our designs to use only the highest grade corrosion resistant materials. Working with our suppliers we found new manufacturing techniques which would enable us to supply our products now made from marine grade 316L stainless steel at a sensible price - often still costing less than our competitors. In doing so we have forged our own niche as the industries leading supplier of rugged yet affordable boat camera systems.

Earlier this year we opened our new US sales and support hub in Fort Lauderdale, Florida, with a new focus on first line customer support and installer backup. Holding stock stateside now brings even greater benefits to our US clients who can visit our showroom and discuss their requirements and see our extensive range of cameras, remote transmission systems, on board recorders and camera management systems for themselves.

This brochure not only highlights our flagship products and accessories, but also introduces new additions to our portfolio. Our new 'Atom' series of low cost IP Thermal and Visible Spectrum cameras, Cloudlink 4G+WiFi Cellular Modems, S476 bulkhead cameras and IX8 temperature monitoring camera all make their debut at this seasons boat shows, where we hope to see you and warmly welcome you onto our booth!

Carl Hitchcock  
CEO  
Iris Innovations



# IRIS

## IRIS-A4295 / A4395

Compact Dual Spectrum - IP+Visible Spectrum IP PTZ Camera 384x288 / 640x512



### Key Features:

- Dual Spectrum Cameras - Thermal & Visible Spectrum
- Visible Spectrum Camera 2MP HD Resolution 10x Optical Zoom
- Thermal Cores available in 384x288 (A4195) and 640x512 (A4395) Resolutions - 4x Digital Zoom
- Miniature - Lightweight Compact Form Factor
- Dimensions 206mm x 160mmø / 2Kg Weight
- Available with single IP address or dual IP addresses
- Side mount or Rear mount Waterproof Cable Connector
- Push Lock Quick Connector - IP66
- 12µm Pixel Pitch
- Features IP and RS485 Serial Data Control
- 750mA @ +12VDC Power / 8.4W
- IP66 Environmental Rating

### Applications:

- Marine Navigation & Safety
- Security & Surveillance
- Law Enforcement & Search and Rescue
- Perimeter Security & Monitoring
- Low Cost / Small Vessel Situational Awareness
- Work Boat & Commercial Shipping
- Sports Fishing / Commercial Fishing
- Rapid Deployment & Portable Surveillance
- Vehicle & Transport Applications

Introducing the new Atom Range, A4295 and A4395 dual spectrum IP PTZ cameras from Iris Innovations.

With two thermal resolution options, the cameras also feature a 2MP high definition visible spectrum camera core with excellent low light performance, sharp footage and 10x optical zoom capabilities.

Available with side entry or base entry cable options, the cameras are built into a robust yet compact waterproof case, designed to protect the unit from the harshest environmental conditions.

Each camera module has its own IP address meaning the cameras can be configured, controlled and switched separately, and are compatible with many leading marine chart plotters.

An RS485 Serial Data connection is also provided to maximise control options, meaning as well as via an NVR or computer, the cameras can also be controlled from Iris's CMAC range of camera management systems or CCTV joystick controllers supporting the Pelco-D protocol.

With its rugged, compact footprint and extremely competitive pricing, our new IP PTZ cameras are the perfect solution for vessels of all types and sizes and our industry leading thermal imaging technology opens up a world of boating at night in safety.

The A4295 and A4395 cameras are both ONVIF compliant and NDAA compliant.

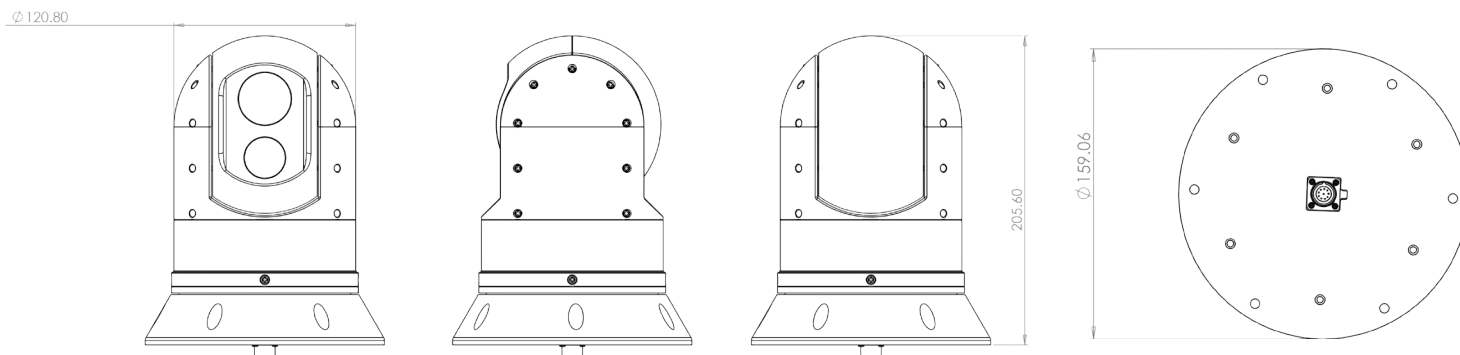


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# IRIS

# IRIS-A4295 / A4395

Compact Dual Spectrum - IP+Visible Spectrum IP PTZ Camera 384x288 / 640x512



## Specifications:

	IRIS-A4295	IRIS-A4395
Thermal Camera Resolution	384 x 288	640 x 512
Thermal Camera Lens	19mm	
Pixel Pitch	17µm	12µm
Refresh Rate	25/30Hz	
Colour Palettes	White Hot / Black Hot / Fulgurite / Iron Red / Hot Iron / Medical / Arctic / Rainbow 1 / Rainbow 2 / Tint	
Image Enhancement	ICE® Image Contrast Enhancement - 7 Levels	
Zoom	x4 Smooth Digital Zoom - Continuous	
Visible Spectrum Camera	1/2.8" High Performance Low Illumination SONY CMOS Sensor IMX327	
Resolution	1920 x 1080 25/30 frames/sec	
Focal Length / Iris / Zoom	F = 4.7mm ~ 94mm / F1.6 ~ F3.5 / 20x Optical Zoom	
Compression	H.264 / H.265	
Bit Rate	32Kbps ~ 16Mbps	
Frame Rate	1-25fps(50Hz) / 1-30fps(60Hz)	
Streams	Supports dual stream, main stream (1080P; 960P; 720P), Sub Stream (D1; VGA; CIF)	
Cellular / Wifi / GPS	Optional - Contact Iris for Details	
Protocols	Network Protocols: ONVIF Profile S / Others TBC Serial Data: RS485 / Pelco D	
Power Requirements	+12VDC / 750mA / 8.4W	
Dimensions / Weight	160mm Ø x 206mm(H) / 2Kg	
Environmental / Certification	EN60529 / IP66 / TBC	
Cable Options	Side Entry / Base Entry	
CGEA Rating / NDAA	6A003B4B / Check regional laws for export restrictions / NDAA Compliant	

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# IRIS

# IRIS-A418

Compact, Hi-Definition Controllable IP PTZ Camera, Visible Spectrum with 30x Zoom



## Key Features:

- Visible Spectrum Camera 2MP HD Resolution 30x Optical Zoom
- Miniature - Lightweight Compact Form Factor
- Dimensions 206mm x 160mmø / 2Kg Weight
- High Power Infrared LED's - Up to 80m Range
- True Day/Night Operation with IR Cut Switch
- Up to 255 User Presets Supported
- 4 x User Definable Patrols
- Home & Park Positions
- Side mount or Rear mount Waterproof Cable Connector
- Push Lock Quick Connector - IP66
- Features IP and RS485 Serial Data Control
- 750mA @ +12VDC Power / 8.4W
- IP66 Environmental Rating

## Applications:

- Marine Navigation & Safety
- Security & Surveillance
- Law Enforcement & Search and Rescue
- Perimeter Security & Monitoring
- Low Cost / Small Vessel Situational Awareness
- Work Boat & Commercial Shipping
- Sports Fishing / Commercial Fishing
- Rapid Deployment & Portable Surveillance
- Vehicle & Transport Applications

Introducing the new Atom Range, A418 High Definition Visible Spectrum IP PTZ camera with 30x Optical Zoom from Iris Innovations.

Available with side entry or base entry cable options, the cameras are built into a robust yet compact waterproof case, designed to protect the unit from the harshest environmental conditions.

The A418 features a high end network camera module featuring leading digital image processing features such as noise reduction, image enhancement, wide dynamic range technology and boasts a powerful 30x optical zoom lens to identify targets at extreme distances.

As well as offering ultra-responsive pan and tilt control with proportional zoom movement, the camera boasts up to 255 user preset positions and a range of scenes and user configurable automated tours.

An RS485 Serial Data connection is also provided to maximise control options, meaning as well as via an NVR or computer, the cameras can also be controlled from Iris's CMAC range of camera management systems or CCTV joystick controllers supporting the Pelco-D protocol.

With its rugged, compact footprint and extremely competitive pricing, our new IP PTZ cameras are the perfect solution for vessels of all types and sizes and our industry leading thermal imaging technology opens up a world of boating at night in safety.

The A4418 camera is both ONVIF compliant and NDAA compliant.

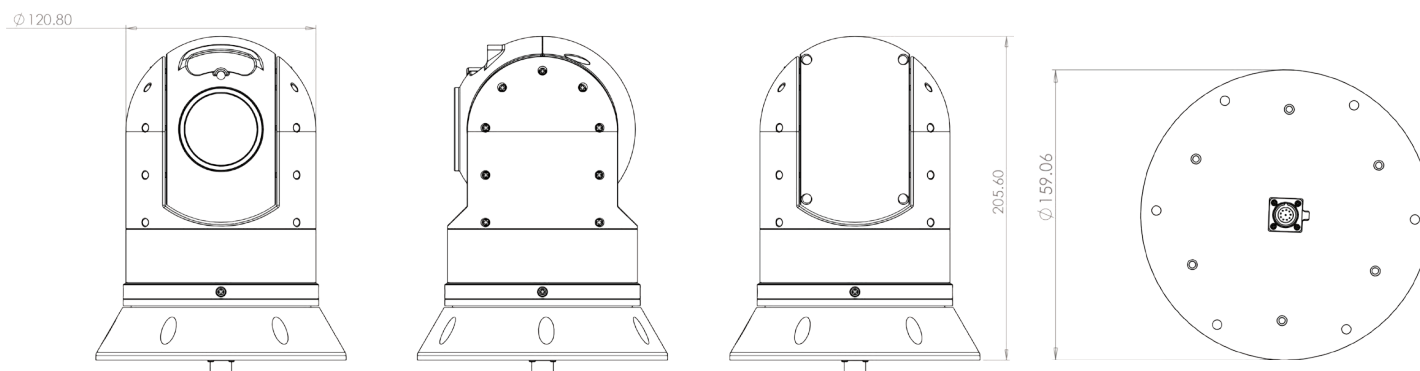


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# IRIS

# IRIS-A418

Compact, Hi-Definition Controllable IP PTZ Camera, Visible Spectrum with 30x Zoom



## Specifications:

	IRIS-A418
Camera Resolution	1920 x 1080P 2MP 25/30 frames/sec
Sensor	1/2.8" High Performance Low Illumination CMOS Sensor (IMX327)
Zoom	30x Optical Zoom
Iris	F1.6 ~ F3.5
Focal Length	4.7mm ~ 141mm
Image Enhancement	DWDR
IR Range	4 x High Powered Infrared Lamps, 2 Groups (Low Beam / High Beam) Brown Glass Filter, Infrared Distance up to 80m (240ft)
Park Function	Supported
Video Format	AVI (D1/720P/1080P (default)
Snapshot Storage	Optional - (D1/720P/1080P (default)
Compression	H.264 / H.265
Bit Rate	32Kbps ~ 16Mbps
Frame Rate	1-25fps(50Hz) / 1-30fps(60Hz)
Streams	Supports dual stream, main stream (1080P; 960P; 720P), Sub Stream (D1; VGA; CIF)
Cellular / Wifi / GPS	Optional - Contact Iris for Details
Protocols	Network Protocols: ONVIF Profile S / Others TBC Serial Data: RS485 / Pelco D
Power Requirements	+12vDC / 2000mA Max (IR ON) / 24W Max
Dimensions / Weight	160mm Ø x 206mm(H) / 2Kg
Environmental / Certification	EN60529 / IP66 / TBC
Cable Options	Side Entry / Base Entry
CGEA Rating / NDAA	No Export Restrictions / NDAA Compliant

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# IRIS

# Sentinel: IRIS-S290/S390

Professional Single Payload PTZ Cameras for Extreme Environments



## Key Features:

- S290: 384x288 Resolution with 19mm Lens
- S390: 640x512 Resolution with 25mm Lens
- 12 $\mu$  Pixel Pitch
- ICE™ Image Contrast Enhancement Feature
- 10 Colour Palettes
- Thermal Sensitivity <50mK
- Fast, Smooth Pan Tilt Control
- Rugged Metal Housing, Anodised & Powder Coated
- Analogue Video Output
- Compatible with all Chart Plotters with composite video input
- Tilt Axis Gyro Stabilisation Option (add G suffix to part number)

## Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Featuring a wealth of new features to give you added confidence when navigating in total darkness, Sentinel Thermal cameras are widely used by fishermen, boat-owners, emergency services and law enforcement agencies alike.

Sentinel Thermal cameras work as well during the day as they do at night and are especially good for detecting people and other objects otherwise missed by radar in the water.

All our Thermal imaging models feature multiple colour palettes and our unique ICE™ Image Contrast Enhancement feature.

### IRIS-S290:

The IRIS-S290 is a single sensor device featuring 384x288 resolution with a 19mm lens and offers ICE™ Image Contrast Enhancement, 12 $\mu$  pixel pitch, a thermal sensitivity of less than 50mK and 10 selectable colour palettes.

### IRIS-S390:

The IRIS-S390 is a single sensor device featuring 640x512 resolution with a 25mm lens and offers ICE™ Image Contrast Enhancement, 12 $\mu$  pixel pitch, a thermal sensitivity of less than 50mK and 10 selectable colour palettes.



# IRIS

# Sentinel: IRIS-S295/S395

## Professional Dual Payload PTZ Cameras for Extreme Environments

### Key Features:

- S295: 384x288 Resolution with 19mm Lens
- S395: 640x512 Resolution with 25mm Lens
- 12 $\mu$  Pixel Pitch
- ICE™ Image Contrast Enhancement Feature
- 10 Colour Palettes
- Thermal Sensitivity <50mK
- Visible Camera 1000TVL Resolution
- 10x Optical / 10x Digital Zoom
- Auto Focus
- Fast, Smooth Pan Tilt Control
- Rugged Metal Housing, Anodised & Powder Coated
- Analogue Video Output
- Compatible with all Chart Plotters with composite video input
- Tilt Axis Gyro Stabilisation Option (add G suffix to part number)

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
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Sentinel Thermal cameras work as well during the day as they do at night and are especially good for detecting people and other objects otherwise missed by radar in the water.

All our Thermal imaging models feature multiple colour palettes and our unique ICE™ Image Contrast Enhancement feature.

#### IRIS-S295:

The IRIS-S295 is a dual sensor device featuring 384x288 resolution with a 19mm lens and offers ICE™ Image Contrast Enhancement, 12 $\mu$  pixel pitch, a thermal sensitivity of less than 50mK and 10 selectable colour palettes.

The visible spectrum camera is a Samsung low light box camera module with 1000TVL CVBS resolution, 10x optical / 10x digital zoom, auto-focus and excellent low light operation

#### IRIS-S395:

The IRIS-S395 is a dual sensor device featuring 640x512 resolution with a 25mm lens and offers ICE™ Image Contrast Enhancement, 12 $\mu$  pixel pitch, a thermal sensitivity of less than 50mK and 10 selectable colour palettes.

As with the S295, the visible spectrum camera is a Samsung low light box camera module with 1000TVL CVBS resolution, 10x optical / 10x digital zoom, auto-focus and excellent low light operation.

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## Key Features:

- Dual Payload - Colour & Thermal Cores
- 384x288 (C295) / 640x512 (C395) Thermal Resolutions
- Multiple Colour Palette Options
- ICE+™ Super-Enhanced Image Processing
- Tilt Axis Gyro Stabilisation
- Blends Thermal Night Vision over Low Light Image to Highlight Thermal Aspects of Scene
- Processes Thermal Image to Enhance Edges - Perfect for Increasing Visibility in Low Thermal Contrast Situations
- Rugged Aluminium Housing, Anodised and Powder Coated.
- Built In Heater & Cooling Fan.
- Fast, Smooth PTZ Control.
- Side Entry Cable / Magnetic Base Option
- 12VDC / 24VDC Operation
- IP66 Environmental Protection

## Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Iris's Dual Sensor Enhanced Sentinel-C Range delivers next level awareness to boaters navigating at night, in light fog and now, utilising Iris's new ICE+ Edge Processing algorithms, in scenes of low thermal contrast.

### Edge+

All thermal cameras experience limitations when there is a low thermal contrast (ie, in hot or cold weather where object temperatures are becoming close to the ambient temperature). Iris's New Edge+ technology blends the image from the cameras low-light visible module with the thermal image and uses complex software algorithms to determine, pick out and enhance object edges, then overlay them onto the image from the thermal sensor. The result is a multi-spectrum composite image with clearly defined object edges and colour thermal video.

As well as Edge+ enhanced visibility, Sentinel C cameras can also overlay colour thermal hotspot information onto the extremely sensitive visible camera image, so objects can now be shown with enhanced clarity with only starlight required.

With their extremely sensitive visible modules and thermal cores, thermal overlay and Edge+ overlay modes, Sentinel C cameras, available in 640x512 and 384x288 resolution deliver 4-in-1 functionality offering extreme value for money whilst delivering superior awareness to boaters, fishermen, crew and search and rescue professionals.

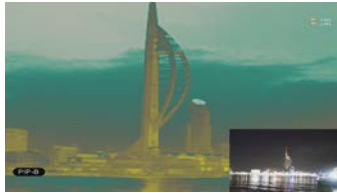
Sentinel cameras feature rugged aluminium housings which are anodised and powder coated to provide excellent protection against corrosion. Scaled pan and tilt control is employed for precise positioning and movement is super smooth. All cameras feature built in environmental management to prevent overheating, condensation and freezing up.



# IRIS

# Sentinel-C

## Colour-Thermal Dual Payload Professional Day/Night Vision Gyro Camera



PIP-B Mode  
Main: Thermal  
Bottom Right Corner: Low Light Camera



Visible Light Camera  
Night Conditions (Ambient Light in Background)



Fusion Mode B - Low Light Picture Background with Thermal Image Hotspots Overlaid



Fusion Mode B - Low Light Picture Background with Thermal Image Hotspots Overlaid



Fusion Mode A - ICE+ Edge Enhancement From Daylight Camera overlaid onto thermal image)



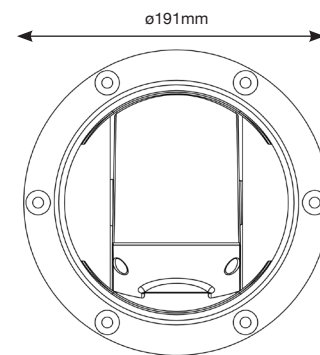
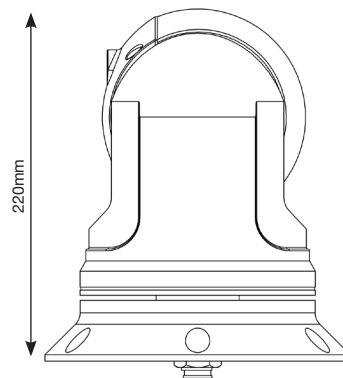
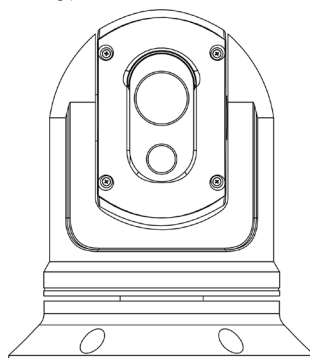
Fusion Mode A - Various Palette Examples



Fusion Mode A - Various Palette Examples



Fusion Mode A - Various Palette Examples



Model No.	Payload 1	Resolution	Lens	Zoom	Payload 2	Resolution	Lens	Zoom	Illumination
S-C295	Analogue Day Module	800 TVL	8mm 50° HFOV	4x Digital (stepped)	Thermal Uncooled FPA - Shutterless	384 x 288	19mm 19.5° HFOV	4x Digital (stepped)	Not Required
S-C395	Analogue Day Module	800 TVL	8mm 50° HFOV	4x Digital (stepped)	Thermal Uncooled FPA - Shutterless	640 x 480	19mm - 32° HFOV	4x Digital (stepped)	Not Required

Pan Details	Continuous Rotation 0~360° 0.5°/s ~ 80°/s	Colour Palettes	12 Colour Palettes (Thermal Core)
Tilt Details	-25° ~ +90° (Auto Reverse) 0.5° ~ 60°/s	Operation Modes:	Day Mode: Low Light Visible Camera Night Mode: Thermal Camera Fusion A Mode: ICE+ Edge Enhancement from Daylight Camera overlaid onto Thermal Image Fusion B Mode: Day Camera Image Overlaid with Hotspots from Thermal Camera PiP A Mode: Full Screen Daylight Camera with Thermal Camera Inset PiP Mode B: Full Screen Thermal Camera with Day Camera Inset
Video Format	1V P~P Composite Analogue Video 75Ω - PAL / NTSC	Thermal Sensitivity / Range	<50mK / 8~14μ
Presets / Patrols & Patterns	100 Presets, 6 Patrols (up to 18 presets each), 4 Patterns	Thermal Pixel Pitch	17μm
Communications Interface	RS485 Serial Data	Visible Camera Illumination	0.05 Lux
Protocols	Pelco D, Iris Variant, 9600 Baud	Housing Material / Colour	Aluminium Body, Anodised & Powder Coated. White/Black Standard - Bespoke Colours Available - POA
Power	+12VDC / +24VDC. Max Consumption 36W (LED's ON)	Gyro Stabilisation	Tilt Axis
Weight	3KG		
Operating Temperature	-50°C ~ +65°C / Humidity: 10% ~ 95% RH		
Environmental	IP66 / TVS 4000V Overvoltage / Lightning Protection		

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# Sentinel: IRIS-S118/S418

## Professional Visible Spectrum PTZ Cameras for Extreme Environments



### S118

### Analogue Format

Designed to withstand the harshest conditions Iris Sentinel cameras are made from machined and cast aluminium body sections which are anodised and powder coated for maximum protection.

Featuring new high spec oil seals and improved stepper motors, our Sentinel cameras move quickly and smoothly with great accuracy.

The IRIS-S118 Sentinel PTZ houses a Sony block camera module with 580TVL analogue resolution, 30x Optical and 12x Digital zoom, auto and manual focus and a host of other features expected from a high end imager. An array of 4 high power second generation infra red LED's provide auto/manual illumination in low light to a range of around 150ft.

As with all Sentinel cameras, the IRIS-S118 is water resistant to IP66 and features a heater and anti-fogging facility. Connection to the camera is via a single umbilical cable that plugs into the centre of the base plate for easy installation.

IRIS-S118 cameras output analogue video and are directly compatible with all chart plotters that feature a composite video input. They can also be plugged into a CCTV monitor or into a TV via an AV input.

The camera is controlled via two wire RS485 serial data using Pelco-D control protocols. The camera is supported by our range of CMAC, IRIS595 and IRIS-TE01 controllers.

The IRIS-S118 is perfect as part of an on board security system and as a tool to enhance situational awareness, whether deployed on a vessel at sea or used on a land vehicle such as fire and police vehicles, safari and animal management trucks or simply just as an aid to guide you through the night in unlit areas.

### S418

### IP Format

The IRIS-S418 Sentinel PTZ features our high specification network sensor supporting multiple streams, max resolution of 2MP, variable bit rates and resolutions, 30x Optical and 10x Digital zoom, ONVIF compliance, RTSP streaming and many more features you'd expect from a high end network camera module.

As with the S118, an array of 4 high power second generation infra red LED's provide auto/manual illumination in low light to a range of around 150ft.

As with all Sentinel cameras, the IRIS-S418 is water resistant to IP66 and features a heater and anti-fogging facility. Connection to the camera is via a single umbilical cable that plugs into the centre of the base plate for easy installation.

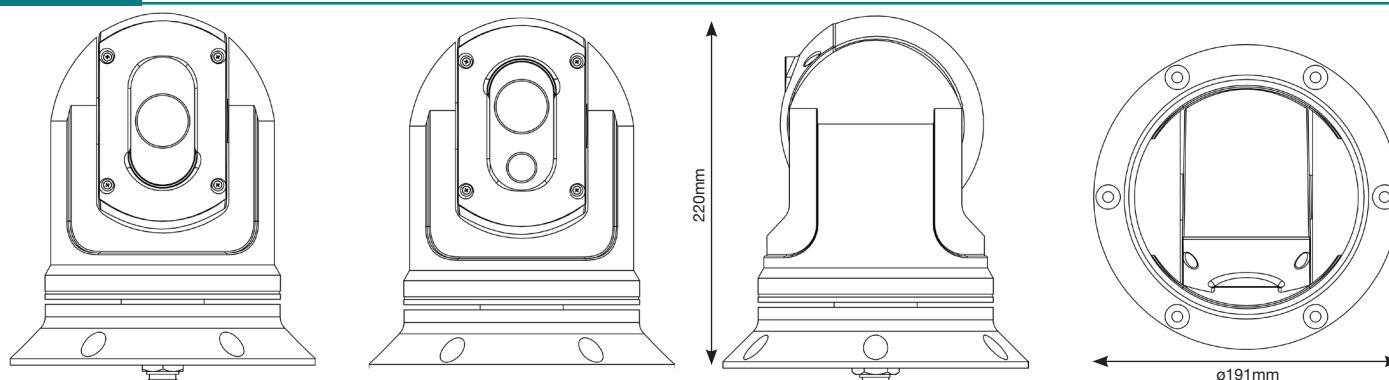
As well as control over ethernet, the camera can also be controlled via two wire RS485 serial data using Pelco-D control protocols. The camera is supported by our IRIS595 and IRIS-TE01 controllers and can be accessed via Iris HVR recorders and gateways and also via a web browser (IE). Video from the S418 can also be accessed from a Raymarine / Axiom MFD running LH2 and higher. S418 is also compatible with our CMAC systems.

The IRIS-S418 is perfect as part of an on board security system and as a tool to enhance situational awareness, whether deployed on a vessel at sea or used on a land vehicle such as fire and police vehicles, safari and animal management trucks or simply just as an aid to guide you through the night in unlit areas.



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## Camera Options:



Model No.	Payload 1	Resolution	Lens	Zoom	Payload 2	Resolution	Lens	Zoom	Illumination
S-118	Analogue	550TVL	3.4 ~ 122.4mm 57.8° Wide / 1.7° Tele	30x Optical / 12x Digital	NA	NA	NA	NA	IR Cut Filter / Range = 50 Meters
S-418	Network IP	2.0 Megapixel	4.5mm ~ 135mm	30x Optical / 10x Digital	NA	NA	NA	NA	IR Cut Filter / Range = 50 Meters
S-290	Thermal (Analogue) Vox Microbolometer, 12µm, 30Hz, <50mk	384 x 288	19mm 19.5° H x 14.7° V	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-390	Thermal (Analogue) Vox Microbolometer, 12µm, 30Hz, <50mk	640 x 512	25mm 24.6° H x 18.5° V	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-295	Thermal (Analogue) Vox Microbolometer, 12µm, 30Hz, <50mk	384 x 288	20mm 18° H x 14° V	4x Digital (stepped)	Analogue	800 TVL	5 ~ 50mm	10x Digital / 10x Optical	Not Required
S-395	Thermal (Analogue) Vox Microbolometer, 12µm, 30Hz, <50mk	640 x 512	20mm 18° H x 14° V	4x Digital (stepped)	Analogue	800 TVL	5 ~ 50mm	10x Digital / 10x Optical	Not Required
S-C295	Analogue Day Module	800 TVL	8mm	4x Digital (stepped)	Thermal (as S-295)	384 x 288	19mm	4x Digital (stepped)	Not Required
S-C395	Analogue Day Module	800 TVL	8mm	4x Digital (stepped)	Thermal (as S-395)	640 x 512	19mm	4x Digital (stepped)	Not Required

## Analogue Specs:

**Note:** For Gyro Stabilised Option Add Suffix 'G' to Part Number

Pan Details	Continuous Rotation 0~360° 0.5°/s ~ 80°/s
Tilt Details	-25° ~ +90° (Auto Reverse) 0.5° ~ 60°/s
Video Format	1V P-P Composite Analogue Video 75Ω - PAL / NTSC
Presets / Patrols & Patterns	100 Presets, 6 Patrols (up to 18 presets each), 4 Patterns
Communications Interface	RS485 Serial Data
Protocols	Pelco D, Iris Variant, 9600 Baud
Power	+12VDC / +24VDC. Max Consumption 36W (LED's ON)
Weight	3KG
Operating Temperature	-50°C ~ +65°C / Humidity: 10% ~ 95% RH
Environmental	IP66 / TVS 4000V Overvoltage / Lightning Protection / Shock & Vibration MIL STD 810E

## IP Model Specs:

Pan Details	Continuous Rotation 0~360° 0.5°/s ~ 80°/s
Tilt Details	-25° ~ +90° (Auto Reverse) 0.5° ~ 60°/s
Video Compression	H.265 / H.264
Frame Rate	Main: 2MP - Max 30fps; Sub: 2MP - 30fps; Third: D1 - 30fps
Communications Interface	1RJ45 10M/100M Base-TX Ethernet (Additional RS485 Serial Data Connection - Pelco D / Iris Variant)
Protocols	ONVIF2.4, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
Power	+12VDC / +24VDC. Max Consumption 36W (LED's ON)
Weight	3KG
Operating Temperature	-50°C ~ +65°C / Humidity: 10% ~ 95% RH
Environmental	IP67 / TVS 4000V Overvoltage / Lightning Protection / Shock & Vibration MIL STD 810E



# IRIS

# IRIS106/1106/4106

Compact Recess Mounting Miniature Dome Camera with Optical Zoom

Available in Analogue / AHD / IP Formats



Optional Surface Mount Bracket. Part No. BRK106

## Key Features:

- Available in multiple formats to suit your requirements
- Bezel Machined from 316 Marine Grade Stainless Steel.
- High Polish or White Powder Coat Finish
- High Definition 1920 x 1080 Resolution (Digital Models)
- High Resolution 1000 TVL (Analogue Model)
- PoE IEEE.802.3af (IRIS-4106 IP Model)
- Compatible with Raymarine / Axiom (L2 and Higher)
- Extremely Low Power Consumption
- Small, Compact and Discreet
- 10x Optical and 10x Digital Zoom
- Surface Mount Bracket Option Available (IRIS-BRK106)
- IP66 Environmental Protection

## Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing & Sports Fishing
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

The IRISx106 range of multi-format miniature, controllable cameras are the smallest marine PTZ cameras available on the market and provide fast, smooth variable speed control in a variety of formats to suit your requirements:

### IRIS106

High Resolution Analogue Sensor with 1000TVL Resolution / Composite (CVBS) video output - PAL / NTSC switchable.

### IRIS1106

Analogue Hi-Def (HD-TVI / HD-CVI / AHD) selectable with 1920x1080P level Resolution. Use in conjunction with Iris TVI/HDMI convertor module to interface with chartplotters supporting HDMI inputs (Garmin 8xxx series, Simrad NSO etc). Real Time HD video.

### IRIS4106

2MP High Definition Network IP Camera. Compatible (video only) with Raymarine / Axiom MFD's running LightHouse 2 (or above) interface.

x106 cameras can be powered via 12VDC or PoE (4106) and are very quick and easy to install.

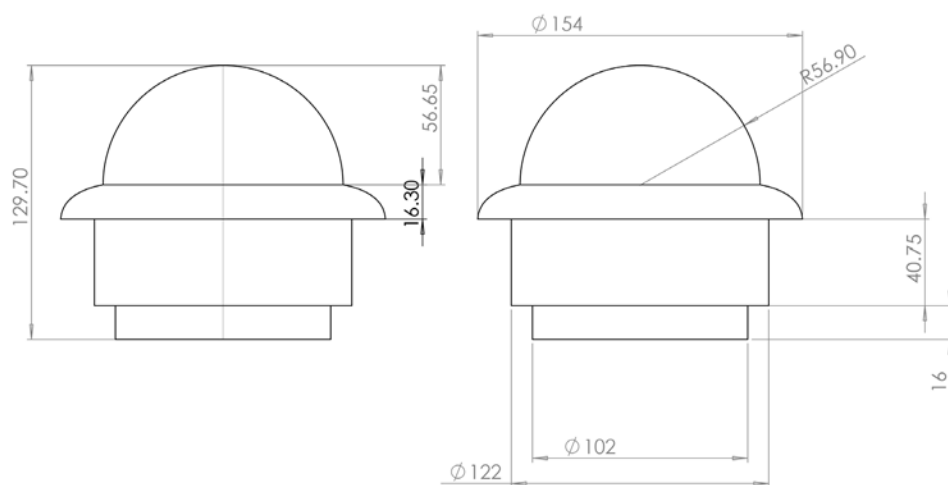
The 4106 supports up to 32 viewers at any one time and can be configured to output different resolutions at various frame rates.

The x106 range of cameras delivers high quality video in multi formats and is an extremely versatile device. Perfect for deck and companionway monitoring, on board security and for situation awareness and surveillance applications.

# IRIS

# IRIS106/4106

Compact Recess Mounting Miniature Dome Camera with Optical Zoom  
Available in Analogue / AHD / IP Formats



## Specifications:

	IRIS-106	IRIS-1106	IRIS-4106
Sensor	1/3" Panasonic CMOS Sensor		1/4" Omnivision OV9712 Sensor
Resolution	1000 TVL	1920x1080	Variable - 1920x1080P (2MP) Max
Interface	NA		RJ45 10/100 Base T Ethernet
Video Processing	1VP-P CVBS Composite Video 75Ω	HD-TVI / HD-CVI / AHD Switchable	H.264 Codec / Dual Stream
Protocols / Video Format	PAL / NTSC Selectable	HD-TVI / HD-CVI / AHD	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA		Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	NA		
Lens / Field of View	F1.8 / F = 4.9 ~ 49mm		
Zoom Level	Optical Zoom: 10x / Digital Zoom: 10x		
Pan Details	360° Continuous Rotation / Speed 0.5 ~ 300° sec		
Tilt Details	0~90° / Speed 0.5 ~ 300° sec		
Mirroring	Horizontal & Vertical - Configure via OSD Menu		Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels		
Compatibility	All MFD's with Composite Video Input, TV via AV Input	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Converter, MFD's via IRIS NVR/HVR	Raymarine / Axiom (LH2 or higher), PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser
Operating Temperature	-30 ~ +60 °C		
Connections	Video: BNC 75Ω Female Connector / DC Power Socket		Water Resistant RJ45 Socket / DC Power Socket / Female BNC (1090)
Material	316 Stainless Steel Bezel / Acrylic Dome / ABS Plastic Body		
Power	12VDC < 0.8A Max.		PoE IEEE802.3af / 12VDC <1A Max.
Weight & Dimensions	Weight: 1.1Kg / Dimensions: Bezel OD = 154mm, Panel Cutout = 122mm, Depth Behind Panel = 58mm (IRIS4106 = Allow additional space for RJ45 Connector - Draft = 73mm)		
Environmental	IP66		

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# IRIS

## IRIS-EX106 / EX4106

Stainless Steel, Explosion Proof PTZ Dome Camera  
Available in Analogue & IP Formats



### Key Features

- Available in Analogue/AHD & IP Formats
- 1920 x 1080P HD Resolution
- Manufactured from 316L Stainless Steel
- Explosion Proof
- Water Proof IP68
- ExMark ExIICT6Gb / ExtDA21
- ONVIF Profile S (EX4106 Model)
- Low Power 12VDC or Optional PoE
- RS485 Serial Data Control (EX106 Model)
- Built In LED Illumination - 40m Range
- 12x Optical Zoom Lens

### Applications

- Engine Room & Deck Monitoring
- Petrochemical Industries
- Drilling Platforms
- Deck & Harardous Equipment Monitoring
- Military & Emergency Service Applications
- Offshore Vessel Surveillance

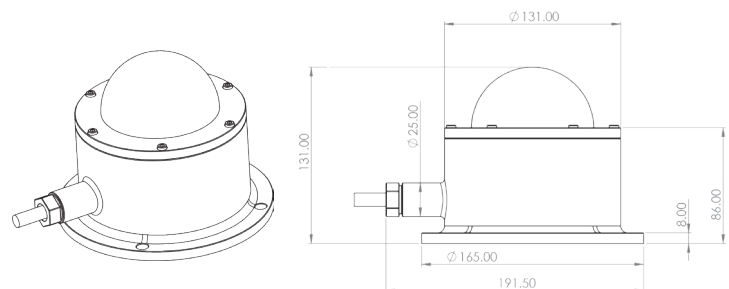
The IRIS-EX series PTZ camera, available in analogue hi-def formats (EX106) and IP format (EX4106) is a high definition, explosion proof, rugged PTZ camera specially designed for hazardous applications such as engine room monitoring, deck monitoring, chemical, petroleum, oil depot, drilling platform and other offshore vessel monitoring.

The camera body is manufactured from marine grade 316L stainless steel and is therefore not only extremely rugged, but also corrosion proof. Explosion proof junction boxes and cable hoses are also available to provide complete protection.

The camera is designed to be used in flammable and explosive hazardous areas (iia, iib, iic flammable gas) and the temperature group rating is Zone 1 and Zone 2 of the T1~T6 group as well as Zones 20, 21 and 22 conductible dust mixture ratings.

The camera is powered by 12VDC as standard and PoE is available as an option (EX4106 version), supports multiple compression rates, bitrates, streaming protocols and browsers.

The EX106 outputs composite video (CVBS - PAL / NTSC), and HD-TVI, HD-CVI, AHD video formats, and is controlled by RS485 Serial Data.



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# IRIS

# IRIS-EX106 / EX4106

Stainless Steel, Explosion Proof PTZ Dome Camera  
Available in Analogue & IP Formats

Specifications:	EX106	EX4106
Image Sensor	1/2.8" 2MP Progressive Scan CMOS	
Video Signal	CVBS: PAL / NTSC / AHD / HD-TVI /HD-CVI	NA
Min Illumination	Colour 0.05 Lux @ F1.2 AGC ON, 0 Lux with IR Operation	
Shutter Speed	1/25s to 1/100,000s	
Lens	5 ~ 60mm Motorised Lens	
Day / Night Operation	IR Cut Filter with Auto Switch (Photo Diode)	
Image Enhancement	BLC / 3D DNR / D-WDR	
Motion Detection	Supported	
Privacy Protection	Supported (4 user definable areas)	
Environmental Rating	IP68	
IR Switching / Wavelength / Range	0.5 ~ 3 Lux / 850nm / 60m	
Pan / Tilt Range & Speed	Pan: 0 ~ 355° @ 40°/sec Tilt: 0 ~ 90° @ 40°/sec	
Video Compression	NA	H.265+ / H.265 / H.264 / MJPEG
Video Bit Rate	NA	32Kbps ~ 12Mbps (CBR / VBR Selectable)
Audio Compression	G.711U	
Dual Streams	Yes	
Max. Image Resolution	AHD / HD-TVI / HD-CVI 1920*1080P(2MP)	1920*1080P
Frame Rate	50 / 60Hz	50/60Hz: Max 1920*1080 / 1280*960 / 1280*720 @ 25fps
Sub Stream	NA	50/60Hz: Max 704*576 / 640*360 / 352*288 @ 25fps
Image Settings	Rotate Mode, Saturation, Brightness, Contrast, Sharpness, Adjustable via client software, web browser or Smart-phone App	
Network Protocols	NA	HTTP, TCP, IP, IPV4, UPNP, UDP, SMTP, NTP, DHCP, DNS, IP FILTER, PPPOE, DDNS, IP SEARCH
General Functions	Anti Flicker, Mirror	Anti Flicker, Mirror, Password Protection, Privacy Mask, Watermark
System Compatibility	All Displays / MFD's with composite video input, HDMI via Iris TVI to HDMI convertor / IRIS CMAC	ONVIF, Media2, P6S, IRIS CMAC MFD's: TBC
Interface	Video: BNC Female, Data: RS485 2 Wire	1 x RJ45 10M / 100M Ethernet Interface
DC Power	12VDC ± 10% <15W Max (LEDs ON)	12VDC ± 10% / PoE Optional <15W Max (LEDs ON)
Housing Material	Marine Grade 316L Stainless Steel	
Weight	4KG	
Dimensions	165mm ø x 131mm Height	
Certification	ExIICT6Gb / ExtDA21 / IP68/67/66 T80°C	

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# IRIS

# IRIS595

## Panel Mount Waterproof Controller Joystick



### Key Features:

- Panel Mount Waterproof Case
- Stylish Black Hard Anodised Finish
- Dynamic Menu System for Function Access
- Responsive 2 Axis Proportional Speed Thumbstick
- Supports Up To 6 Cameras and 18 Monitors
- Pelco D and Pelco D (Iris Variant) Protocols
- RS485 Serial Data
- Wide Operating Voltage - 6~36VDC
- Clear Backlit LCD Screen
- Easy, Intuitive Menu System for Feature Access

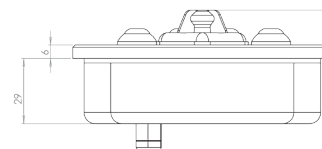
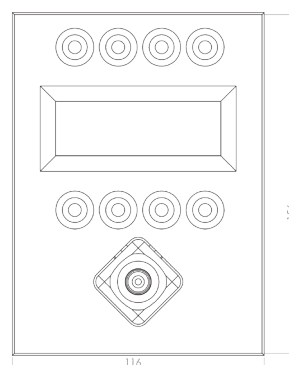
Control up to 16 on board PTZ and Thermal cameras with the stylish IRIS595 panel mount joystick.

Featuring a responsive 2 axis proportional speed thumbstick and 8 feature buttons, the IRIS595 can drive Iris's complete range of PTZ and Thermal cameras and also interface with our hybrid video recorder range and matrix switchers to select 16 cameras to 16 monitors.

The IRIS595 is very easy to install, with 2 wires for DC power and 2 wires for RS485 serial data and transmits Pelco D protocol and Iris Variant data. High end power circuitry means the device can operate between 6~36VDC and also features reverse voltage protection.

The 8 feature buttons navigate through the device's dynamic intuitive menu system to access all the extended features built into Iris PTZ and Thermal PTZ cameras.

IRIS595	Specification
Weight & Dimensions	0.5Kg / 116mm x 156mm
Material	Aluminium, Hard Anodised / Matte Black Finish
Data / Protocol	RS485 Serial Data / Pelco D - Iris Variant
Control Interface	2 Axis Proportional Control thumbstick / 8 Dynamic Buttons
Power	8~36 VDC / <300mA @ 12VDC
Environmental	EN60529 / IP66



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# cmac™

## On Board Camera Management & Control System Featuring Iris Control App for HTML5 Interface Compatible Systems

### You're in Control...

CMAC™ is a new feature rich command, management and control system for your on-board cameras and alarms. Upload your deck plans, set up your on board cameras and alarms and control everything from your chartplotter with the Iris Control App.

Compatible with analogue, IP and HD-TVI cameras and our new Osiris Alarm system, CMAC™ also supports remote P2P access which means you can even view and control your system whilst you're away from the boat.

### Multiple Camera Formats

CMAC systems are available in Hybrid or IP only formats.. Hybrid models accept analogue, AHD (HD-TVI / HD-CVI) and IP formats. By supporting multiple formats, not only does CMAC offer maximum compatibility, but it also future proofs your system should you decide to upgrade your cameras.

### High Definition Digital Output

CMAC systems feature a high definition HDMI digital video output to provide the very best live, high quality footage on compatible chart-plotters, TVs and dedicated monitors. CMAC can also be used with standard definition devices with any HDMI to Composite Video convertor.

### IRIS Control HTML5 App

Manage and control your on-board cameras and alarms via our new Iris Control HTML5 App. Upload your deck plans and photos, drag and drop dedicated camera and alarm icons and you now have the most feature rich and intuitive marine security and surveillance system in the world. Navigate through your deck plans and select camera icons to switch video inputs, control PTZ cameras via the ultra-responsive virtual joystick, configure and select camera tours and scans, activate thermal colour palettes, gyro control and much much, more! Iris Control frees up helm space by removing the need for additional control hardware and joysticks.

### USB Touch Control

In addition to control over your compatible MFD network, CMAC features a USB touch control interface. This means chart plotters with USB touch outputs, such as Garmin's 8000 series can be used to drive your PTZ cameras with pin-point accuracy.

### WiFi / Remote P2P Connectivity

Connect CMAC to your on board WiFi router and view your cameras from around your boat on your smart phone, tablet or computer. Perfect for keeping an eye on what's happening above from below deck! CMAC can also be accessed remotely via P2P connectivity if you have internet access.

### Integrated Network Video Recorder

CMACs built in recorder is fully configurable to maximise storage time, adjust resolutions and frame rates, set video motion detection and much more. Standard CMAC units support 1 x HDD drive bay (4TB capacity).





# IRIS

## CMAC-HVR

Camera Management & Control System for Analogue, AHD and IP Cameras  
with HTML5 Control Interface for Garmin, Raymarine & Navico Chart-Plotters



### Key Features:

- Available in multiple formats to suit your requirements and budget.
- Single & Dual Payload Models.
- Thermal Imaging, Super Low-Light, HD IP and High Resolution Analogue Modules.
- Tilt Axis Gyro Stabilisation Option Available
- New Colour Thermal Technology (Sentinel C Models)
- New ICE+™ Image Enhancement
- Rugged Aluminium Housing, Anodised and Powder Coated.
- Built In Heater & Cooling Fan.
- Fast, Smooth PTZ Control.
- Side Entry Cable / Magnetic Base Option
- 12VDC / 24VDC Operation
- IP66 Environmental Protection

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications



The CMAC-HVR is a fully featured and rugged hybrid recording and camera management device for your boat's camera system.

Available as a stand alone recorder or a full command and control system, the CMAC-HVR supports IP cameras as well as analogue (CVBS) and analogue high definition formats (HD-TVI, HD-CVI and AHD).

The unit is extremely rugged and features a removable anti vibration hard drive caddy. Footage can easily be extracted from the system by removing the caddy and connecting to a computer, or by plugging in a USB drive.

CMAC outputs high definition HDMI video, and can also be viewed and controlled via a web browser or the XMeye App.

On board, CMAC can also be controlled using our IrisControl App for HTML5 platforms such as Garmin's OneHelm platform. Compatibility with other platforms such as Raymarine's LightHouse Apps and Navico's suite of MFD's is due for release December 21.

Your CMAC system is truly a multi-faceted device and works as a camera switcher, controller, alarm management system, digital network recorder and web server, meaning you can connect remotely via an internet connection to view live video footage, recorded events, switch and control your cameras.

Full details of the control possibilities offered by our IrisControl interface, including uploading deck-plans and configuring device and view icons can be found below on the IrisControl page.

CMAC is the worlds first fully dedicated camera and alarm command control and management system for boat owners!

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# IRIS

# CMAC-NVR

Camera Management & Control System for IP Cameras  
with HTML5 Control Interface for Garmin, Raymarine & Navico Chart-Plotters



## Key Features:

- Plug'n'Play Black Box Solution
- Connect up to 16 x IP Cameras
- Hosts IrisControl App for Garmin OneHelm Platform
- Anti-Vibration HDD Caddy with 1TB Drive (4TB Max)
- Built in Network Video Recorder
- USB Touch Interface for Garmin 8xxx series MFD's
- Very Stylish & Compact Case with Rugged Connectors
- Hi-Def HDMI Video Output
- Wide Input Voltage Range
- Upload Deck Plans & Photos

## Applications:

- Luxury Vessels
- Ferry Boats & Passenger Vessels
- Sports Fishing Boats
- Engine Room Monitoring
- Law Enforcement & Military
- Wind Farm Vessels
- Aquaculture & Fisheries
- Motor Cruisers
- Yachts



CMAC-N16 on board camera management, recording and control system from Iris is the definitive black box solution for your boat's surveillance, safety and security cameras. Hosting our feature rich and intuitive IrisControl App for Garmin's Onehelm platform, CMAC incorporates a network video recorder and hard drive in a quick release, anti vibration caddy and web connectivity for remote access.

Connect your network cameras, upload your deck plans and photos, then configure your system by dragging and dropping device icons into place and setting up automated views and macro routines.

Switch your cameras or multi-cam views by choosing the corresponding icon on your deck plan. For larger vessels there are no limits to the number of plans or photos you can upload. As well as switching cameras, the IrisControl App supports an Automation feature with which you can set off a chain of instructions from an icon press.

The CMAC N16 is shipped with a 1TB HDD (expandable to 4TB) installed in a shock proof removable drive caddy which makes it easy to remove the drive to examine recorded video footage and events on an external computer.

Intuitive touch control is achieved using the IrisControl App for Garmin's OneHelm platform on Garmin 8xxx series chart plotters with further integration in the pipeline.

Use the IrisControl App for super accurate PTZ control and to access all your cameras extended features.

CMAC is user-upgradable, so as new features are announced you can easily add these to your interface making your system even more powerful.

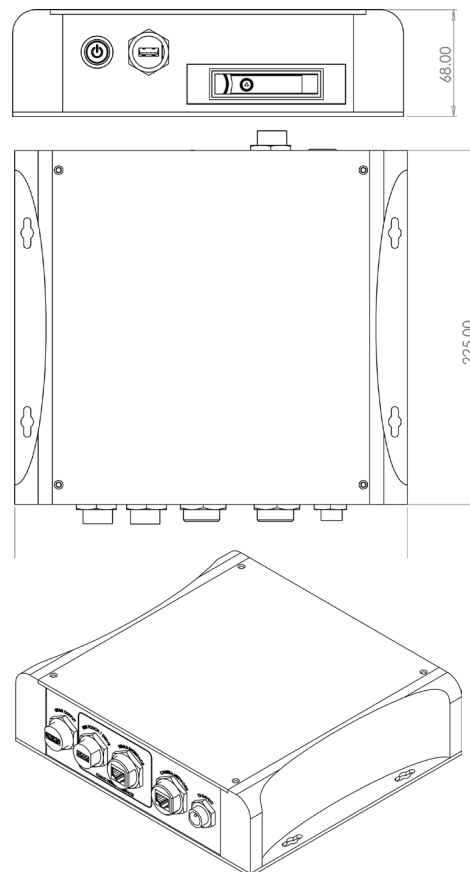
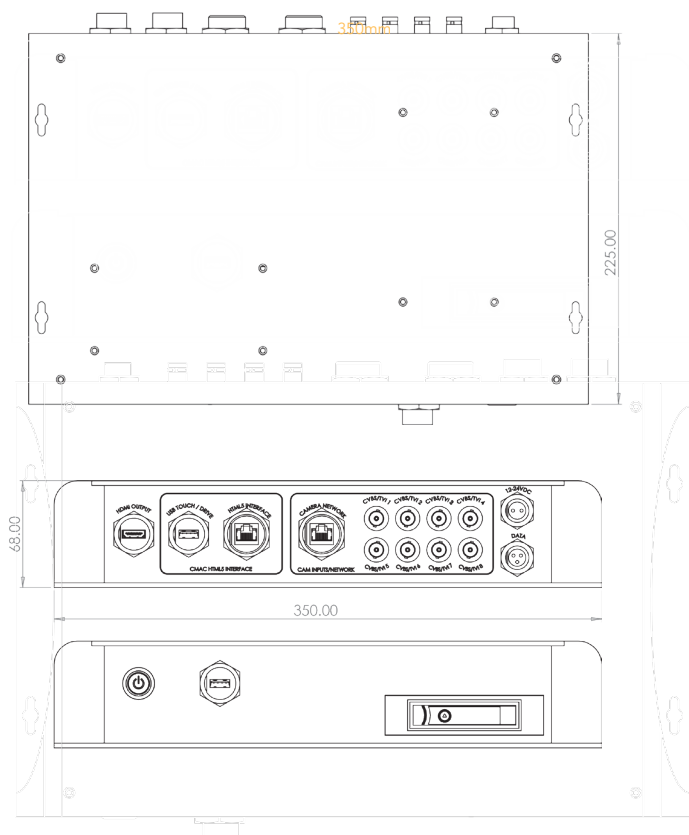
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IRIS

# CMAC Specifications

CMAC Camera Control Interface / IrisControl App Host



Model	CMAC-H16-1TB-G
HVR System Processor	H13521D
Video Codec	H265
Camera Inputs	8 x BNC Female Connectors for CVBS, AHD, HD-TVI, HD-CVI Camera Inputs
Network Camera Capacity	Up to 16 Cameras (at 1080P) via Camera Network RJ45 10/100 Connection
Network Camera Resolution (Recording)	16 x 2MP, 4 x 5MP, 4 x 3MP
Hybrid Camera Resolutions (Recording)	8 x 4MP ANALOGUE + 8 x 4MP IP
Analogue Camera Resolution (Recording)	8 x 5MP, 8 x 4MP, 8 x 2MP (CVBS, AHD, HD-TVI, HD-CVI)
Additional Network Connectivity	Network RJ45 Gigabit Connection for Hosting HTML5 Iris Control Camera Interface Application
Control Interface	IrisControl App for Garmin OneHelm Platform / Raymarine LightHouse & Navico Available Soon
IrisControl Features	User-Uploadable Deck plans / photos, Camera selection, PTZ camera, Single Screen - Split Screen Select, Thermal Camera Features: Gyro, Trim, NUC, Palettes, Memory Presets, Scans Tours, Absolute Referencing, ICE Image Enhancement, NVR Controls
Firmware Upgrade	Via USB (auto-upgrade from root directory of USB Drive)
Chartplotter Compatibility	Garmin 7xxx: Requires HDMI to CVBS Converter (USB Touch not available) / Garmin 8xxx - All Features. IrisControl for Raymarine LightHouse Apps and Navico Apps available Soon
Storage	1 x 2.5" SATA II Drive Caddy 8TB capacity / Second Drive Bay Option Available
Video Output	1 x HDMI Output
Serial Data Port	Built In 3 Pin Connection for RS485 Serial Data / PTZ Control (Multi Protocol Support)
USB Interface	2 x USB 3 Drives / Drive 1 for Processor Board Functions (USB Touch, File Upload etc) / Drive 2 for NVR Features (File Transfer, NVR Mouse + KBD)
HTML5 User Interface	IRIS Control Camera Management HTML5 Application Host
Operating Temperature	-10°C ~ +55°C
Power	+12VDC ~ 24VDC / <2A @ 12VDC
Weight & Dimensions	2.8Kg / 350mm Width x 225mm Depth x 68mm Height
Material	Anodised Aluminium Plates / ABS Plastic End Cheeks with Wood Effect Veneer

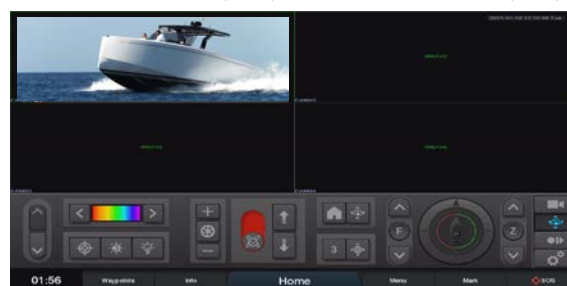
	CMAC-N16-1TB-G
HVR System Processor	H13521D
Video Codec	H265
Camera Capacity	16 x IP Cameras @ 1920 x 1080P Resolution,
Connectivity	Single RJ45 for Connection to Camera Network, RJ45 Connection for Garmin Network, USB for Garmin Touch / System Upgrade, USB for NVR Configuration & file management, HDMI Video Output, DC Power Input
Storage	1 x Anti Vibration SATA II 2.5" HDD Caddy for Removable Storage (1TB HDD Supplied) / 8TB Capacity
Video Output	1 x HDMI
Control interface	IrisControl App for Garmin OneHelm Platform / Raymarine LightHouse & Navico Available Soon
USB Touch	Additional USB Touch Control for Supported MFD's / Devices
IP Camera Support	All IRIS IP Cameras / ONVIF Profile-S Compliant IP Cameras
IrisControl Features	User-Uploadable Deck plans / photos, Camera selection, PTZ camera, Single Screen - Split Screen Select, Thermal Camera Features: Gyro, Trim, NUC, Palettes, Memory Presets, Scans Tours, Absolute Referencing, ICE Image Enhancement, NVR Controls
Firmware Upgrade	Via USB (auto-upgrade from root directory of USB Drive)
Alarm Integration	TBA
AIS Tracking Features	TBA
Chart Plotter Compatibility	Garmin 7xxx Requires HDMI to CVBS Converter (USB Touch not available) / Garmin 8xxx - All Features. Others TBA
Power	+12VDC ~ +24VDC / <2A @ 12VDC
Operating Temperature	-10°C ~ +55°C
Dimensions	250 x 255 x 68mm
Weight	4.45Kg
Material	Anodised Aluminium Plates / ABS Plastic End Cheeks with Wood Effect Veneer

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Upload deckplans & photos and configure with camera, alarm and automation icons for one-touch activation (above). Feature Rich Controller Panels (below).



### CUSTOMISE

Up-load deck plans or photos into your CMAC™ system then drag and drop camera, preset and alarm icons to provide instant switching and control. Load up as many deck plans or photos as you like and navigate using scroll buttons which neatly animate through your plans. Use your own photos to represent instrumentation panels and then simply place preset icons over your dials and displays to instantly drive a PTZ camera to look at the readings.

Alarm icons will flash when triggered and can be armed and disarmed via the icon.

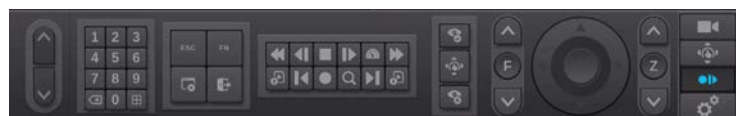
Preset icons can be placed to send PTZ cameras to monitor a specific position at the touch of a button.

If you don't want to upload your own images, simply select your devices from the scroll-down text menu.

### RECORD

CMAC™ systems feature a built-in digital video recorder and the Iris Control App includes a virtual control panel to provide access to the recorder's functions.

The NVR control panel within Iris Control provides access to the record module's menu system for full device configuration, including input naming, video motion detection settings, search and playback of recordings and much more.



### CONTROL

Iris Control's virtual joystick provides smooth, accurate control of your PTZ and Thermal cameras from networked chart-plotters completely eliminating the need for additional controller hardware on your helm.

As well as Pan, Tilt, Zoom and focus controls, we've included thermal palette and shutter controls, gyro toggle and trim controls, day / night and Infra Red LED ON/OFF controls, scan and preset controls and buttons to jump to AIS tracking controls and Drone operation.

As well as pan and tilt control using the virtual joystick, CMAC™ also supports USB Touch Control to allow precise touch control from the video feed from Chart-Plotters or screens supporting USB Touch.

### CONFIGURE

As well as naming cameras, deck plans, photos, alarm and preset icons, Iris Control's set up menus are simple and intuitive and let you configure preset positions, camera image and configure mirror and invert, PTZ camera home position and software upgrades.





# CMAC for Garmin TD50

## CMAC / IrisControl App for Garmin TD50 Mini TouchScreen Display



### Key Features:

- Designed especially for systems with chart plotters set back on the helm or for clients who do not have a Garmin MFD.
- Garmins TD50 Hardware
- Miniature Panel Mount 5" Touchscreen
- Garmins Operating System
- Specially formatted version of IrisControl Software works as a control interface. View camera images full screen whilst controlling from the TD50.
- Upload your own deckplans
- Drag and Drop Icons to represent camera positions and PTZ pre-set memory positions
- Use TD50 independently with CMAC or on your Garmin Network
- IrisControl App feature upgrades Free of Charge as released

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

If you do not have a compatible chart plotter, or if your compatible chart plotter is set back on the helm and out of arms reach, Iris have released a special edition of the IrisControl App for CMAC to run exclusively on Garmins excellent miniature touch screen TD50.

The TD50 is a compact 5" high bright touchscreen which can either sit on Garmins network or run independently, connecting directly to you CMAC camera management system. You can then switch, control, configure and review your on board camera system using the TD50 as a dynamic mini touchscreen controllers and with the video output from the CMAC system routed directly to your screen or MFD.

Thing of the TD50 as a mini panel mount or bracket mount tablet running the IrisControl App to control cameras and devices connected to your CMAC system.

IrisControl for TD50 was developed especially to enable clients with chart plotters from other manufactures to control their on board camera systems.

Garmins excellent little TD50 mini-MFD is water proof and can be mounted internally or externally. It's small form factor make it perfect to mount in cramped helms or captains chairs, or in panels around the vessel to allow crew to switch and control onboard cameras.

The specially formatted IrisControl App has been designed specially to work around the TD50's screenspace and features change dynamically when navigating through the intuitive IrisControl interface. As with the full scale IrisControl App, clients can upload their deckplans into their CMAC in the appropriate format then drag and drop camera icons to allow device selection by a simple touch.

IrisControl is the worlds only dedicated boat camera control and management system which when combined with Garmins world beating hardware delivers an unbeatable experience

IRIS

# IRIS-S060 / S160 / S460

316 Marine Grade Stainless Steel Static Dome Camera Analogue, AHD & IP



## Key Features:

- Available in multiple formats to suit your requirements
- Machined from 316 Marine Grade Stainless Steel.
- Available in Brushed (standard), High Polish or Custom Painted Finish\*
- High Definition 1920 x 1080 Resolution (Digital Models)
- High Resolution 1000 TVL (Analogue Model)
- Compatible with Raymarine / Axiom (LH2 and Higher)
- Compatible with SIMRAD MFD's inc. SIMRAD, Lowrance and B&G
- Built In Infra Red LED Illumination (10m Range)
- PoE Option (IRISS460 IP Model)
- Extremely Low Power Consumption
- IP66 Environmental Protection

## Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing & Sports Fishing
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Iris's SX60 range of miniature marine grade stainless steel cameras are available in multiple formats and deliver the highest quality video to suit your application.

The range comprises a high resolution analogue solution designed for maximum compatibility with most marine chart plotters (IRISS060), a high definition TVI model which delivers 1920x1080 resolution in real time† (IRISS160) and a high definition 2MP IP camera which is directly compatible with Raymarine chart plotters (running LH2 / LH3 software) and Furuno Timezero v4.1 and above.

The SX60's 316 stainless steel housing provides the ultimate protection in the harsh marine environment, and is therefore the perfect solution for deck monitoring aboard work boats, fishing vessels and passenger vessels, whilst fitting in equally as well with the high end aesthetic of luxury vessels and mega yachts.

Measuring only 58mm high by 60mm in diameter, the SX60 range is small enough to provide unobtrusive surveillance and also for use in areas where space is tight, such as engine rooms or anchor wells.

Whether you need a high quality and rugged camera as part of your on board surveillance system, for engine room, deck and companion way monitoring or as a robust and stylish docking or backup camera, the IRIS-SX60 range of cameras is the perfect solution



\* Non Standard Finishes may incur additional costs

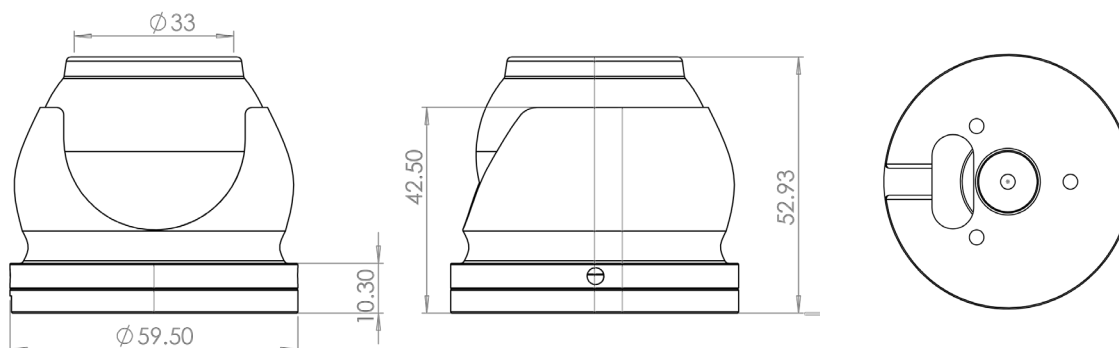
† May Require Additional Converter Hardware Depending on Model of MFD

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# IRIS

# IRIS-S060 / S160 / S460

316 Marine Grade Stainless Steel Static Dome Camera Analogue, AHD & IP



## Camera Options:

Model No.	Format	Resolution	Lens	Horizontal Field of View
S060	Analogue	1000TVL	3.6mm Standard, 1.8mm & 2.8mm Option	3.6mm: 80° HFOV 2.8mm: 120° HFOV, 1.8mm 160° HFOV
S160	HD-TVI	1920 x 1080		
S460	IP	1920 x 1080		

## Specifications:

	IRIS-S060	IRIS-S160	IRIS-S460
Sensor	1/3" Sony CCD Sensor		1/4" CMOS Sensor
Resolution	1000 TVL	1920x1080	Variable - 1920x1080P (2MP) Max
Interface	NA		RJ45 10/100 Base T Ethernet
Video Processing	1VP~P CVBS Composite Video 75Ω	HD-TVI / HD-CVI / AHD Switchable	H.264 Codec / Dual Stream
Protocols / Video Format	PAL / NTSC Selectable	HD-TVI / HD-CVI / AHD	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA		Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	6 x 850nm Infra Red - 10 meter Range		
Lens / Field of View	3.6mm Standard (80° HFOV) / 2.8mm Option / 1.8mm Wide Angle Option		
Mirroring	Horizontal & Vertical - Configure via OSD Menu		Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels		
Compatibility	All MFD's with Composite Video Input, TV via AV Input, CMAC Camera Management Systems	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Converter, MFD's via IRIS NVR/HVR, CMAC Camera Management Systems	Raymarine / Axiom (LH2 or higher), NAVICO MFD's inc SIM-RAD / LOWRANCE, B&G, Furuno Timezero v4.1 and higher. PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser, CMAC systems
Operating Temperature	-30 ~ +60 °C		
Connections	Video: BNC 75Ω Female Connector / DC Power Socket		Water Resistant RJ45 Socket / Non PoE with DC Power Socket
Material	316 Stainless Steel		
Power	12VDC < 200mA Max.		PoE IEEE802.3af / 12VDC <200mA Max.
Weight & Dimensions	0.420Kg / 59.5mm ø x 52.93mm H		
Environmental	IP66		

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# IRIS

# IRIS-S076/S476

Bulkhead/Vertical Mount Static Camera in Corrosion Proof 316L Case



## Key Features:

- Corrosion Proof 316L Marine Grade Stainless Steel
- Available in 4-in-1 (CVBS, TVI, CVI, AHD) & IP Formats
- Analogue Hi-Def Resolutions up to 1920x1080P Resolution
- IP Version - Max 3MP Hi-Def Resolution
- Super Wide Angle 160° Lens (other lens options available)
- IP Version Supports PoE and 12VDC - Ultra Low Power
- Built in Infra Red LED Illumination (10m Range)
- EN60945, EN55032, EN55035, EN50529 (IP66) , FCC, CE
- Shock & Vibration Proof
- Super Rugged and Easy to Install

## Applications:

- Perfect For Extreme Environments
- Work Boat & Tugs
- Fishing Vessels
- Engine Room Monitoring
- Law Enforcement & Military
- Wind Farm Vessels
- SUV's, RV's, Work Vehicles and Trucks
- Luxury Vessels
- Passenger Ferries & Cruise Liners

Iris' Sx76 series camera is the first of its kind designed to be installed into a bulkhead or vertical surface. Its waterproof stainless steel case is machined from marine grade 316L stainless steel which means it will not corrode in harsh salt water environments, making it a great option as a back up or docking camera for boats. By mounting the camera in the sides of your boat it can even be used when mooring alongside jetties or pontoons.

During installation, the camera's inner ball can be adjusted and then locked into position by simply tightening the outer bezel to achieve the desired view.

Two models of the camera are available depending on your system requirements. For IP based systems, the S476 features 3MP high definition resolution and 12VDC or PoE power, or for analogue or analogue hi-def (such as TVI / CVI / AHD) systems, the S076 version features 1080P resolution. The camera also outputs a CVBS signal for legacy composite video systems.

Both versions of the camera feature a 1.8mm (160°HFOV) wide angle lens as standard, with 3.6mm and 2.8mm lens options available. Built in infra red LED illuminators provide short range night vision around the camera to a range of around 10m.

As well as marine applications, the cameras tough case and small footprint make it a perfect visibility aid for recreational vehicles, fire and rescue trucks, and other applications where a robust and reliable, high definition camera is required.

The camera is certified to EN60945, EN55032, EN55035 and EN60529 (IP66) and is ONVIF compliant. For marine applications, the camera is directly compatible with Raymarine LH2 and above, Simrad, Lowrance and B&G. For Garmin systems, use in conjunction with Iris CMAC systems.



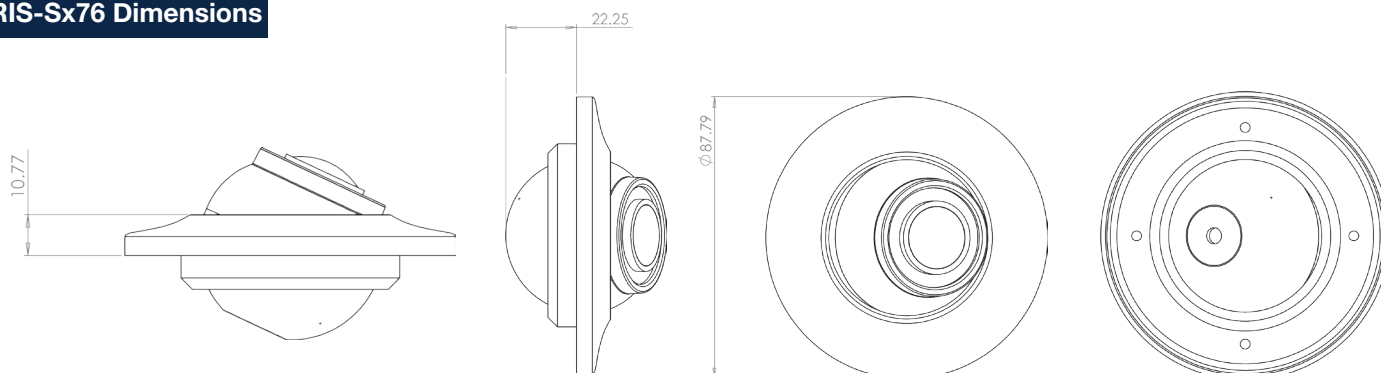
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# IRIS

# IRIS-S076/S476

Bulkhead/Vertical Mount Static Camera in Corrosion Proof 316L Case

## IRIS-Sx76 Dimensions



	IRIS-S076	IRIS-S476
Sensor	1/4" CMOS Sensor	
Resolution	CVBS: 960H / AHD, HD-TVI. HD-CVI: 1920 x 1080	Variable - 3MP Max (2304 x 1296)
Interface	OSD Menu via in-line Joystick in Cable Tail	RJ45 10/100 Base T Ethernet
Video Processing	Analogue / Analogue HD	H.264 Codec / Dual Stream
Protocols / Video Format	1VP~P / 75Ω Composite / AHD/TVI/CVI Formats	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA	Profile S v21.06
Bitrate	NA	VBR / CBR 32kbps ~ 8Mbps
Illumination	6 x 850nm Infra Red - 10 meter Range	
Lens / Field of View	3.6mm Option (80° HFOV) / 2.8mm Option (120° HFOV) / 1.8mm Standard (160° HFOV)	
Mirroring	Horizontal & Vertical - Configure via OSD	Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels	
Compatibility	CVBS: All MFD's / Screens featuring Composite Video Input AHD/TVI/CVI via Interface or IRIS CMAC System	Raymarine / Axiom (LH2 or higher), Simrad / B&G / Lowrance (Latest NOS / NEON OS) / PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser
Operating Temperature	-30 ~ +60 °C	
Connections	Video - 75Ω BNC Female / 2.1mm DC Socket	Water Resistant RJ45 Socket / Non PoE with DC Power Socket
Material	Marine Grade 316L Stainless Steel (High Polished as standard / Brushed / Powder Coat Options available)	
Power	+12VDC (+10 ~ +15VDC Range) / 1W Nominal / 1.8W Max (LED's ON)	+12VDC (+10 ~ +15VDC Range) / 1W Nominal / 1.8W Max (LED's ON)
Power Over Ethernet (PoE)	NA	IEEE802.3af
Weight & Dimensions	0.420KG / 88mm ø x 22.25mm above and below mounting surface	
Environmental	EN60529 / IP66	
EMC	EN55032:2015/A11:2020 & EN55035:2017/A11:2020 EN60945:2002 Sections 9 & 10 / FCC Part 15 A & B	EN55032:2015/A11:2020 & EN55035:2017/A11:2020 EN60945:2002 Sections 9 & 10 / PoE with Compliant PoE Injector / FCC Part 15 A & B
RoHS	EN6300:2018	

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# IRIS

# IRISx36

## Mini Recess Mount Fixed Domes, Analogue, IP & AHD Models



### Key Features:

- Available in multiple formats to suit your requirements
- Machined from 316 Marine Grade Stainless Steel.
- High Polish Finish
- High Definition 1920 x 1080 Resolution (Digital Models)
- High Resolution 1000 TVL (Analogue Model)
- PoE IEEE.802.3af (IRISS490 IP Model)
- Compatible with Raymarine / Axiom (L2 and Higher)
- Compatible with NAVICO MFD's inc. SIMRAD, Lowrance and B&G
- Extremely Low Power Consumption
- Small, Compact and Discreet
- White Powder Coat Bezel Option
- IP66 Environmental Protection

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing & Sports Fishing
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Introducing the IRISx36 range of recess mount, micro dome marine cameras from Iris Innovations.

For maximum compatibility the x36 series is now available in three formats:

IRIS036 Hi-Resolution Analogue Sensor, 1000TVL with composite video output

IRIS436 Hi-Def Ethernet IP Camera

IRIS1036 Hi-Def Real Time iHD Digital Video Output

For the first time ever, the x36 range offers customers a choice of video formats to suit their MFD or monitoring solution. The IRIS036 will interface directly with any chart plotter that features a composite video input. Its 1000TVL resolution is the highest available for an analogue camera, and it also boasts on screen configuration functionality to set the camera up exactly as required - including a video mirror switch for rear view applications. Set up is carried out via an integrated thumb stick built into the cable tail.

The IRIS1036 Analogue Hi-Def model outputs 1920x1080 resolution video in AHD, TVI or CVI format which provides stunning real time high definition video †.

Finally, the IRIS436 is an IP camera that will interface with Raymarine's network MFD's such as the new Axiom family and other devices running LightHouse 2 and 3 software and Furuno Timezero 4.1 and above. The camera is available with a 12VDC input as standard or with IEEE802.3af Power over Ethernet as an option.

† May require HDMI convertor or use in conjunction with IRIS HVR / DVR products.

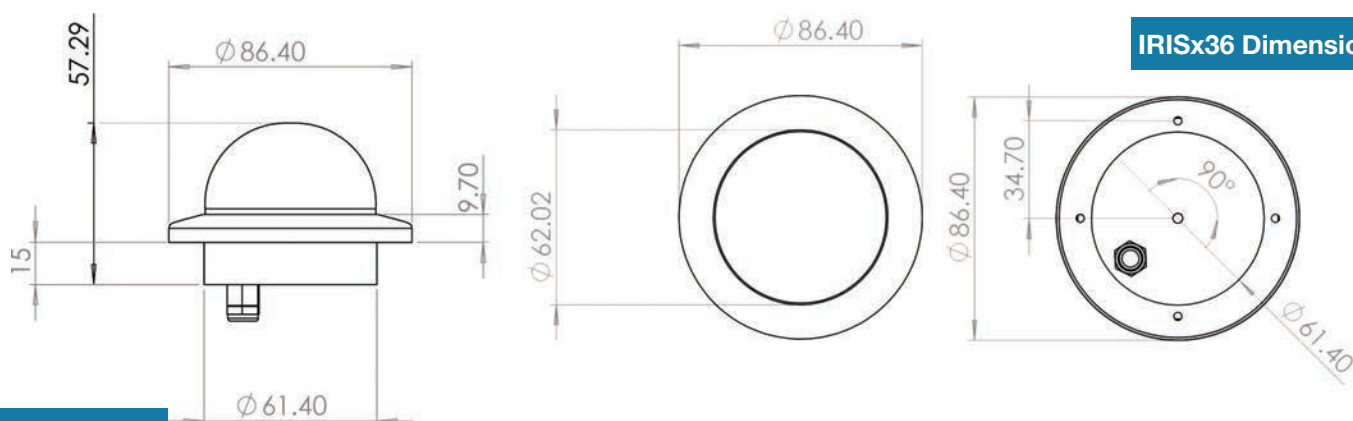


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# IRIS

## IRISx36

### Mini Recess Mount Fixed Domes, Analogue, IP & AHD Models



IRISx36 Dimensions

#### Camera Options:

Model No.	Format	Resolution	Lens	Horizontal Field of View
IRIS036	Analogue	1000TVL	3.6mm Standard, 1.8mm & 2.8mm Option	3.6mm: 80° HFOV 2.8mm: 120° HFOV, 1.8mm 160° HFOV
IRIS1036	HD-TVI	1920 x 1080		
IRIS436	IP	1920 x 1080		

#### Specifications:

	IRIS-S060	IRIS-S160	IRIS-S460
Sensor	1/3" Sony CCD Sensor		1/4" CMOS Sensor
Resolution	1000 TVL	1920x1080	Variable - 1920x1080P (2MP) Max
Interface	NA		RJ45 10/100 Base T Ethernet
Video Processing	1VP-P CVBS Composite Video 75Ω	HD-TVI / HD-CVI / AHD Switchable	H.264 Codec / Dual Stream
Protocols / Video Format	PAL / NTSC Selectable	HD-TVI / HD-CVI / AHD	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA		Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	NA		
Lens / Field of View	3.6mm Standard (80° HFOV) / 2.8mm Option / 1.8mm Wide Angle Option		
Mirroring	Horizontal & Vertical - Configure via OSD Menu		Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels		
Compatibility	All MFD's with Composite Video Input, TV via AV Input, CMAC Camera Management Systems	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Convertor, MFD's via IRIS NVR/HVR, CMAC Camera Management Systems	Raymarine / Axiom (LH2 or higher), NAVICO MFD's inc SIMRAD / LOWRANCE, B&G, Furuno Timezero v4.1 and higher.PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser, CMAC systems
Operating Temperature	-30 ~ +60 °C		
Connections	Video: BNC 75Ω Female Connector / DC Power Socket		Water Resistant RJ45 Socket / DC Power Socket / Female BNC (1090)
Material	316 Stainless Steel / Acrylic Dome		
Power	12VDC < 200mA Max.		PoE IEEE802.3af / 12VDC <200mA Max.
Weight & Dimensions	Weight: 0.25Kg / Dimensions: 86.5mmø x 58mm (Panel Cut Out 62mm)		
Environmental	IP66		

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# IRIS

## IRIS-090 / 1090 / 490

316 Marine Grade Stainless Steel Static Pipe Style Cameras - Analogue / HD-TVI  
and IP Formats



### Key Features:

- Available in multiple formats to suit your requirements
- Machined from 316 Marine Grade Stainless Steel.
- High Polish Finish
- High Definition 1920 x 1080 Resolution (Digital Models)
- High Resolution 1000 TVL (Analogue Model)
- Built In Infra Red LED Illumination (10m /20m Range)
- Submersible Option Available
- PoE IEEE.802.3af (IRISS490 IP Model)
- Compatible with Raymarine / Axiom (L2 and Higher)
- Compatible with Navico MFD's inc. SIMRAD, LOWRANCE and B&G
- Extremely Low Power Consumption
- IP66 Environmental Protection

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing & Sports Fishing
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Iris's x90 range of marine grade stainless steel cameras are available in multiple formats and deliver the highest quality video to suit your application.

The range comprises a high resolution analogue solution designed for maximum compatibility with most marine chart plotters (IRISS090), a high definition TVI model which delivers 1920x1080 resolution in real time† (IRISS1090) and a high definition 2MP IP camera (IRIS490) which is directly compatible with Raymarine chart plotters (running LH2 / LH3 software) and Navico MFD's (Simrad, Lowrance and B&G).

The x90's 316 stainless steel housing provides the ultimate protection in the harsh marine environment, and is therefore the perfect solution for deck monitoring aboard work boats, fishing vessels and passenger vessels, whilst fitting in equally as well with the high end aesthetic of luxury vessels and mega yachts.

Equipped with high power infra red LED's, the x90 series provides high definition video cover even at night to a range of 20 meters.

The x90 range is small enough to provide unobtrusive surveillance and also for use in areas where space is tight, such as engine rooms or anchor wells.

Whether you need a high quality and rugged camera as part of your on board surveillance system, for engine room, deck and companion way monitoring or as a robust and stylish docking or backup camera, the IRISx90 range of cameras is the perfect solution, favoured by luxury boat owners and commercial vessel operators alike.

† May Require Additional Converter Hardware Depending on Model Of MFD



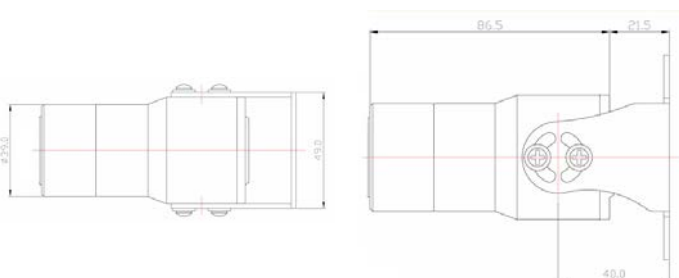
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# IRIS

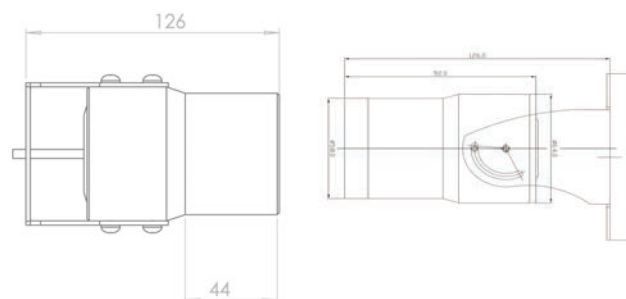
# IRIS-090 / 1090 / 490

316 Marine Grade Stainless Steel Static Pipe Style Cameras - Analogue / HD-TVI and IP Formats

## IRIS090 Dimensions



## IRIS490 / 1090 Dimensions



## Camera Options:

Model No.	Format	Resolution	Lens	Horizontal Field of View
IRIS090	Analogue	1000TVL	3.6mm Standard 2.8mm Option	3.6mm: 80° HFOV 2.8mm: 120° HFOV
IRIS1090	HD-TVI	1920 x 1080	3.6mm Standard 2.8mm Option	3.6mm: 80° HFOV 2.8mm: 120° HFOV
IRIS490	IP	1920 x 1080	3.6mm Standard 2.8mm Option	3.6mm: 80° HFOV 2.8mm: 120° HFOV

## Specifications:

	IRIS090	IRIS1090	IRIS490
Sensor	1/3" Sony CCD Sensor		1/4" CMOS Sensor
Resolution	1000 TVL	1920x1080	Variable - 1920x1080P (2MP) Max
Interface	NA		RJ45 10/100 Base T Ethernet
Video Processing	1VP~P CVBS Composite Video 75Ω	HD-TVI / HD-CVI / AHD Switchable	H.264 Codec / Dual Stream
Protocols / Video Format	PAL / NTSC Selectable	HD-TVI / HD-CVI / AHD	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA		Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	6 x 850nm Infra Red - 10 meter Range	2 x High Power Infra Re 850nm - 20 Meter Range	
Lens / Field of View	3.6mm Standard (80° HFOV) / 2.8mm Option		
Mirroring	Horizontal & Vertical - Configure via OSD Menu		Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels		
Compatibility	All MFD's with Composite Video Input, TV via AV Input, CMAC Systems	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Convertor, MFD's via IRIS NVR/HVR, CMAC Systems	Raymarine / Axiom (LH2 or higher), NAVICO MFD's inc SIMRAD / LOWRANCE, B&G, PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser, CMAC Systems
Operating Temperature	-30 ~ +60 °C		
Connections	Video: BNC 75Ω Female Connector / DC Power Socket		Water Resistant RJ45 Socket / DC Power Socket / Female BNC (1090)
Material	316 Stainless Steel		
Power	12VDC < 200mA Max.		PoE IEEE802.3af / 12VDC <200mA Max.
Weight & Dimensions	0.660Kg / 108mm x 49mm	1.170Kg / 126mm x 64mm	
Environmental	IP66	IP66 Standard / IP68 Submersible Option Available	

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# IRIS

# IRIS-092

Static Marine Grade 316 Stainless Steel Thermal Camera



## Key Features:

- Bullet Style Camera, with Adjustable Tilt Bracket
- 316 Marine Grade Stainless Steel Case come with 10 Year Warranty\*
- Available in 400x300 Resolution
- Multiple Colour Palettes
- 17µm Pitch
- <50mK Thermal Sensitivity
- IP68 Environmental Protection
- Cosr Effective Thermal Solution
- ICE™ Image Contrast Enhancement Technology

## Applications:

- Perfect For Extreme Environments
- Work Boat & Tugs
- Fishing Vessels
- Engine Room Monitoring
- Law Enforcement & Military
- Wind Farm Vessels
- Aquaculture & Fisheries
- Luxury Vessels
- Passenger Ferries & Cruise Liners

For extreme applications, Iris's new IRIS092 fixed thermal imaging camera delivers unparalleled vision at night and in low light situations. The IRIS092 is the perfect tool for spotting obstacles at sea, on board deck, engine room and companionway safety and finding people or animals in zero light.

Developed as part of Iris's marine range, the IRIS092 is also used by police authorities, fire, search and rescue services, wind farm support vessel operators and aquaculture businesses around the world.

The IRIS092's key benefit is its solid marine grade stainless steel case which makes it one of the worlds toughest night vision cameras.

With a 400x300 resolution and 15mm lens, the IRIS092 is enhanced further by Iris's ICE™ Image processing feature which dynamically analysis each video frame to enhance object edges, making them easier to spot. The camera also features multiple colour palettes and 4x digital zoom.

At sea, the IRIS092 is perfect as a forward facing camera for spotting channel markers and bouys, floating debris and objects undetectable by radar. As an aft facing camera, the IRIS092 can help docking at night and monitor tenders and other objects under tow. It's extremely small form factor also make it ideal for monitoring engine rooms.

The IRIS092 is extremely compact, rugged and delivers excellent value for money, costing less than any other thermal camera in its class.

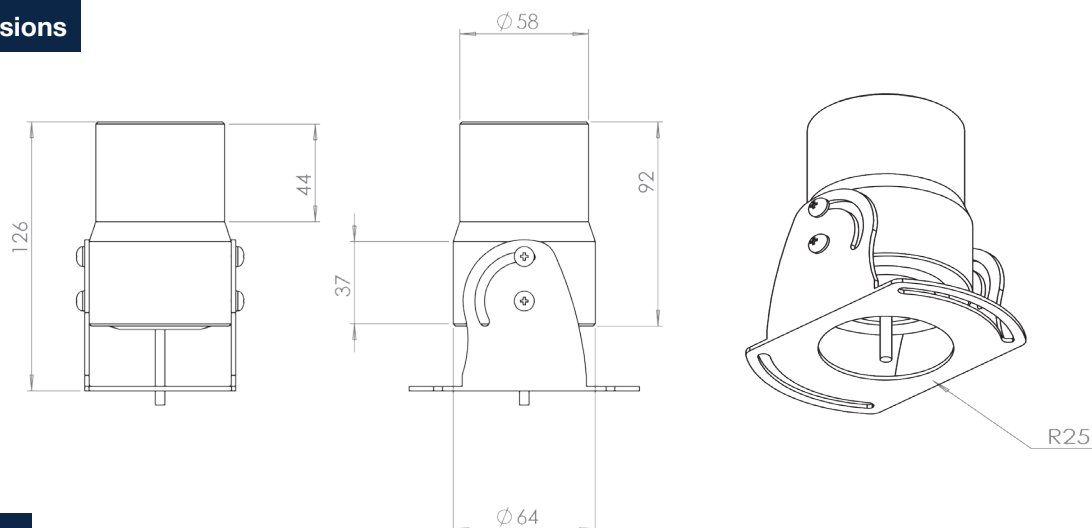
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# IRIS

# IRIS-092

## Static Marine Grade 316 Stainless Steel Thermal Camera

### IRIS092 Dimensions



### Specifications:

	IRIS092
Sensor	Uncooled Amorphous Silicone Microbolometer
Resolution	Sensor Resolution 400x300
Pixel Pitch	17 $\mu$ m
Video Processing	1VP~P CVBS Composite Video 75 $\Omega$
Protocols / Video Format	PAL / NTSC Selectable 30Hz/60Hz (NTSC, 360x240, 320x240) 25Hz/50Hz (PAL, 384x288, 360x288)
Focal Length	15mm/f1.0
Focus / Zoom	Fixed Focus / Digital Zoom 4x Continuous
Spectral Range	8~14 $\mu$ m
Field of View	25° x 19°
Mirroring	Horizontal / Vertical
Colour Palettes	10 Palettes
Image Enhancement	IRIS ICE® Image Contrast Enhancement
Compatibility	All MFD's with Composite Video Input, TV via AV Input, Composite DVR;s / Video Switchers
Communication	RS485 Serial Data Communication / Iris Protocol
Operating Temperature	-40 ~ +70 °C
Connections	Video: BNC 75 $\Omega$ Female Connector / DC Power Socket / 6 Pin Body Mount Connector Option
Material	316 Stainless Steel
Power	12VDC < 200mA Max.
Weight & Dimensions	Weight: XKg / Camera Body 92mm x 64mm $\phi$
Environmental	IP66 (IEC 60529)

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# IRIS

## IRIS-093 / 093R

Marine Grade 316 Stainless Steel Thermal Camera with Radiometric Option



### Key Features:

- Bullet Style Camera, with Adjustable Tilt Bracket
- 316 Marine Grade Stainless Steel Case come with 10 Year Warranty\*
- Available in 640x512 Resolution
- Multiple Colour Palettes
- 17µm Pitch
- <50mK Thermal Sensitivity
- IP66 Environmental Protection
- Cost Effective Thermal Solution
- ICE™ Image Contrast Enhancement Technology

### Applications:

- Perfect For Extreme Environments
- Work Boat & Tugs
- Fishing Vessels
- Engine Room Monitoring
- Law Enforcement & Military
- Wind Farm Vessels
- Aquaculture & Fisheries
- Luxury Vessels
- Passenger Ferries & Cruise Liners



For extreme applications, Iris's new IRIS093 fixed thermal imaging camera delivers unparalleled vision at night and in low light situations. The IRIS093 is the perfect tool for spotting obstacles at sea, on board deck, engine room and companionway safety and finding people or animals in zero light. The 093 is also a powerful tool for first responders and search and rescue teams, at on land.

Developed as part of Iris's 'EXtreme' range, the IRIS093 is also used by police authorities, fire, search and rescue services, wind farm support vessel operators and aquaculture businesses around the world.

The IRIS093's key benefit is its solid marine grade stainless steel case which makes it one of the worlds toughest night vision cameras.

With a 640x512 resolution and 15mm lens, the IRIS093 is enhanced further by Iris's ICE™ Image processing feature which dynamically analysis each video frame to enhance object edges, making them easier to spot. The camera also features multiple colour palettes and 4x digital zoom.

The IRIS093R option offers a range of on-screen radiometric readings such as target + hottest object, target + coldest target, hottest and coldest target and region measurements, which allows a user definable target to be measured.

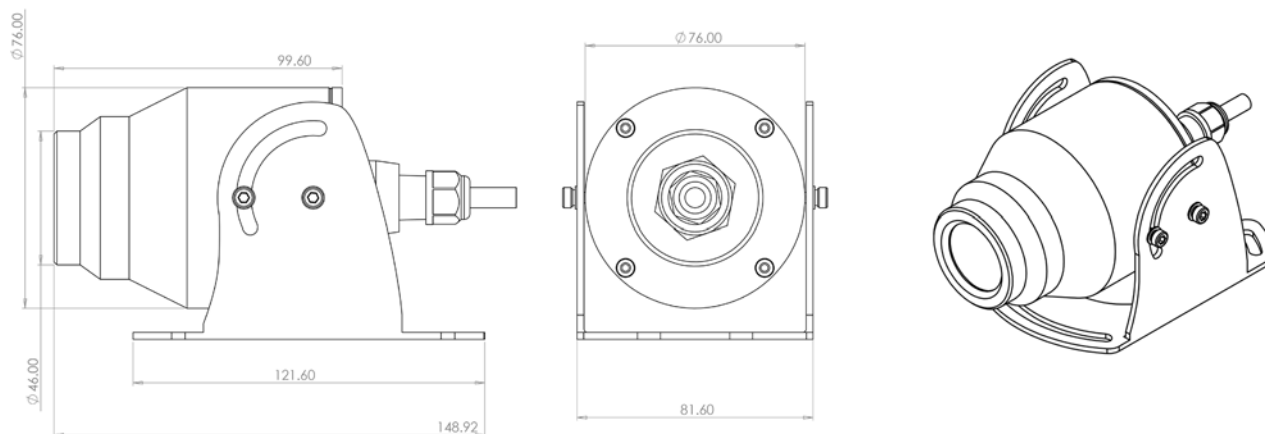
The 093R also features the same multiple colour palettes as the standard 093 option.

# IRIS

## IRIS-093 / 093R

Marine Grade 316 Stainless Steel Thermal Camera with Radiometric Option

### IRIS093 Dimensions



### Specifications:

	IRIS093
Sensor	Uncooled Amorphous Silicone Microbolometer
Resolution	Sensor Resolution 640 x 512
Pixel Pitch	17 $\mu$ m
Video Processing	1VP~P CVBS Composite Video 75 $\Omega$
Protocols / Video Format	PAL / NTSC Selectable 30Hz/60Hz (NTSC, 640x512) 25Hz/50Hz (PAL, 640x512)
Focal Length	25mm/f1.0
Focus / Zoom	Fixed Focus / Digital Zoom 4x Continuous
Spectral Range	8~14 $\mu$ m
Field of View	25° x 19°
Mirroring	Horizontal / Vertical
Colour Palettes	10 Palettes
Image Enhancement	IRIS ICE® Image Contrast Enhancement
Radiometric Features	Target + Hottest / Target + Coldest / Hottest & Coldest / User Definable Target
Compatibility	All MFD's with Composite Video Input, TV via AV Input, Composite DVR;s / Video Switchers
Communication	RS485 Serial Data Communication / Iris Protocol
Operating Temperature	-40 ~ +70 °C
Connections	Video: BNC 75 $\Omega$ Female Connector / DC Power Socket / 6 Pin Body Mount Connector Option
Material	316 Stainless Steel
Power	12VDC < 200mA Max.
Weight & Dimensions	Weight: 1.1Kg / Camera Body 92mm x 64mm $\phi$
Environmental	IP66 (IEC 60529)

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# IRIS

## IRIS-735

Micro-Compact Flush Mounting 316L Stainless Steel Camera



### Key Features:

- Micro-compact form factor - 28mmø x 36mm
- 316L Stainless Steel
- 4-in-1 Video Format (CVBS, TVI, CVI, AHD)
- 2.9mm Wide Angle Lens
- Starlight Sensor for Ultra Low Light Operation
- Compatible with All Chart Plotters with Composite Input
- Compatible with CMAC-HVR systems
- Compatible with TV's via HDMI convertor (TVI mode)
- IP67 Enviromental Rating
- Low Power Consumption

### Applications:

- Perfect For Extreme Environments
- Road Traffic Surveillance
- Monitoring Dynamic Digital Signage
- Engine Room Monitoring
- Deck Monitoring
- Fishing Vessel Monitoring & Surveillance
- Emergency Vehicle Camera Applications
- Animal / Food Processing Applications

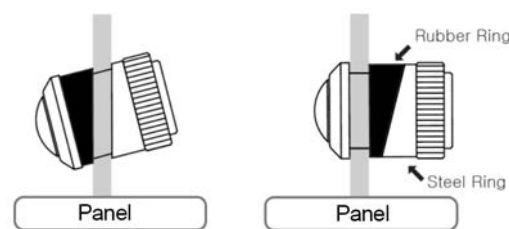
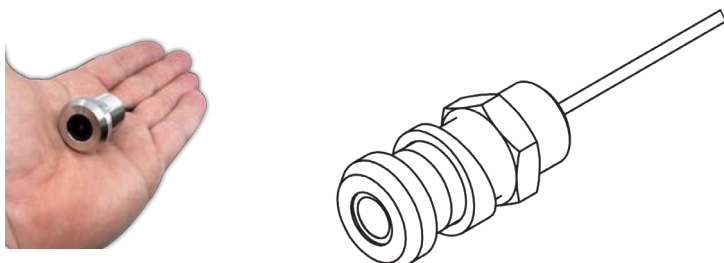
Introducing the worlds smallest through hull camera - the IRIS735 machined from corrosion resistant marine grade 316L stainless steel and measuring only 28mmø by 36mm long.

The 735 has been designed to sit flush into the hull, super structure or transom of your vessel to provide all round coverage without impacting on the lines of your vessel, with a bezel height of only 8.5mm.

The camera module itself features a Sony Starlight sensor to provide excellent performance in low light, and can be user-set to output composite (CVBS) or analogue Hi-Def (TVI, CVI, AHD) video formats. When set to CVBS, the 735 is compatible with all chart plotter models that support composite video inputs. When set to TVI, the 735 will provide hi-definition real time video which can be viewed on an MFD via our CMAC systems or fed to a TV via our TVI~HDMI convertors.

The camera has a 140° wide angle field of view which makes it great to position along the sides and transom of your vessel to provide all round coverage whilst docking, and is also a great solution for sports fishing applications.

If you are looking for a tiny, cost effective docking camera, sports fishing camera or for unobtrusive cameras to add to your onboard security set up, the IRIS735 is the perfect solution.



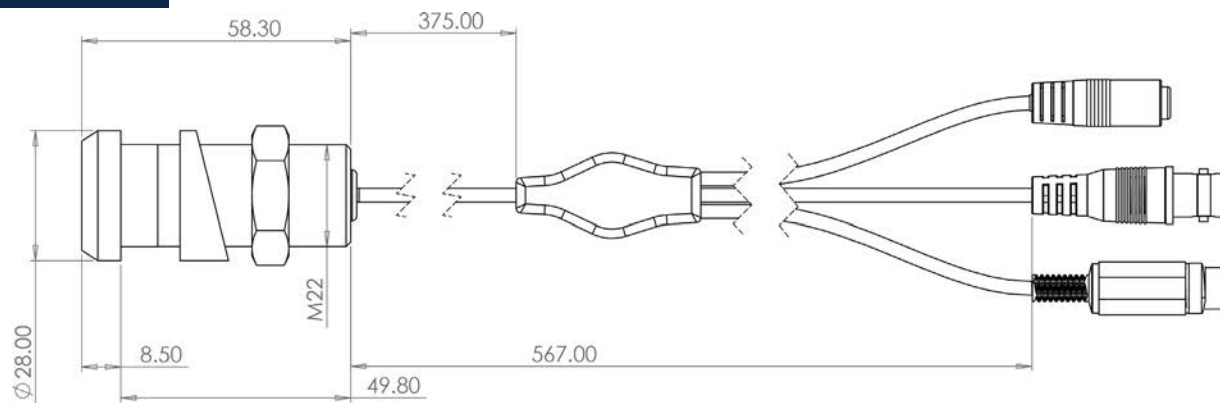
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# IRIS

# IRIS-735

## Micro-Compact Flush Mounting 316L Stainless Steel Camera

### IRIS735 Dimensions



### Specifications:

	IRIS735
Sensor	1/2.8" SONY STARVIS CMOS Sensor
Resolution	1920 x 1080P @ 30fps (NTSC) / 25fps (PAL) / 906H in CVBS mode
Minimum IlluminatiON	0.001 Lux (F1.2)
Day & Night Operation	Auto / Colour / Monochrome / External
Video Output Modes	Analogue HD Modes: HD-TVI, HD-CVI, AHD / Analogue: Composite Video (CVBS) NTSC / PAL
Lens	2.9mm
Shutter Speed	Auto / Manual (1/50(60) - 1/50,000 sec)
Horizontal Field of View	140°
Defog	Off / Auto
White Balance	ATW / AWC / INDOOR / OUTDOOR / MANUAL / AWB
Back Light Compensation	OFF / BLC / HSBLC
D-WDR	Off / 0~8
SENS-UP	Off / x2 ~ x30
DNR	Off / Low / Middle / High
Brightness	0 - 100
Motion Detection	Off / On
Image Mirror	Off / Mirror / V-Flip / Rotate
Sharpness	0 ~ 10 Steps
Material	316L Marine Grade, Corrosion Resistant Stainless Steel
Power	DC12V ±10% / 125mA (1.5W)
Weight	01Kg
Dimensions	28mmØ x 36mm
Environmental / EMC	EN60529 IP67 / EMC EN60945 (TBC)
Operating Temperature	-10 °C ~ + 50 °C / <90% Humidity

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# IRIS

## IRIS-750

Fully Submersible (50m) 316L Stainless Wide Camera with Adjustable LED's



### Key Features:

- Submersible to 50 Meters
- Hi-Def HD-TVI / AHD Format
- 15x High Bright Adjustable LED's
- Fully Dimmable LED Control to Reduce Back Scatter
- 316L Marine Grade Stainless Steel Case
- Excellent Low Light Performance / Sony Exmor 1/2.9" Sensor
- 3.6mm Lens / 80°HFOV
- Very Low Power Consumption - Max 4.0 Watt
- Compact Form Factor - 49.5mmø x 70mm
- Supplied with Mounting Bracket

### Applications:

- Marine Wildlife Observation
- Checking Sub-Surface Fixtures
- Sacrificial Anode Inspection
- Inspect Props and Running Gear
- Provides Visibility in Unsafe Environments
- Aquaculture & Fish Farming
- Sub Sea Engineering Applications
- Sports Fishing, Swimming & Documentary Making

Iris's 750 Submersible camera is an extremely robust and versatile, high definition video solution for deployment beneath the waves or in hazardous scenarios.

Whether you're making an under water film or documentary, inspecting running gear or sacrificial anodes on your hull, sports fishing or just keen to watch aquatic wildlife on the TV in your boat's salon, the 750, with its 1080P realtime high definition output is the perfect choice.

The 750 outputs analogue high definition formats such as AHD, HD-TVI, HD-CVI and standard definition CVBS composite video. Routing the video into your TV via our plug'n'play TVI~HDMI convertor produces crisp HD underwater video in realtime - without the potential streaming and buffering issues seen with IP cameras.

The camera case is machined from AISI 316L marine grade stainless steel to ensure the very best protection from salt water and exposure to other substances other cameras cannot withstand. The device is rated to depths of 50 meters and is supplied with a 20m cable, with extension cables available separately.

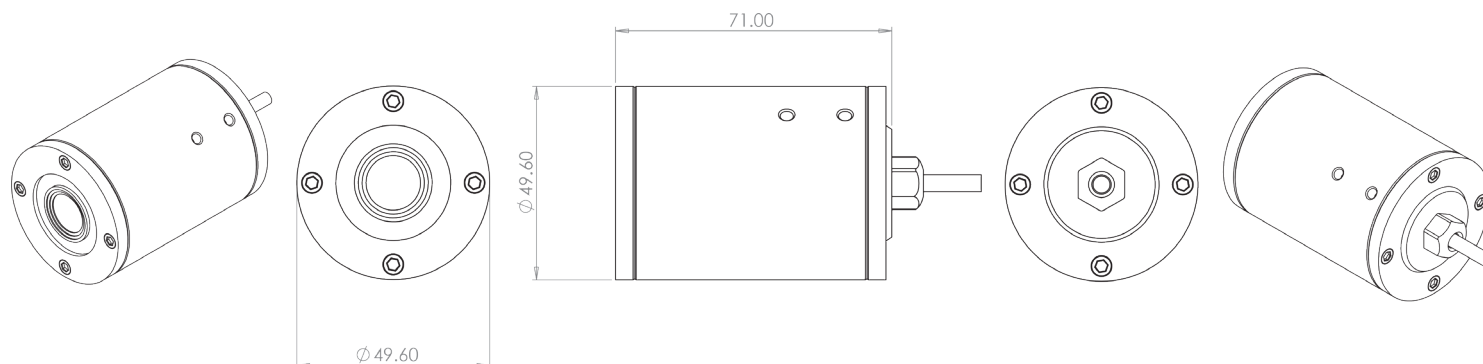
Adding to its impressive feature set, the 750 boasts an array of 15 high strength bright-white LED illuminators, the intensity of which can be controlled manually using a plug in rotary LED controller switch (supplied). This is great when inspecting items close up in order to reduce the effects of particular back-scatter in the water - making the camera perfect for engineers, boat owners wishing to check out their running gear, impellers, anodes and props.

# IRIS

# IRIS-750

Fully Submersible (50m) 316L Stainless Wide Camera with Adjustable LED's

## IRIS750 Dimensions



## Specifications:

	IRIS750
Sensor	1/2.9" Sony Exmor CMOS Image Sensor
Resolution	1920 x 1080P (2MP)
Minimum Illumination	0Lux - With LED's ON, Colour: 1.0lux, Mono: 0.5lux, Colour DSS: 0.002 Lux, Mono DSS: 0.0008lux
Day & Night Operation	Manual LED Operation / Automatic
Video Output Modes	4-in 1 Video Output Modes - CVBS (PAL / NTSC), HD-TVI, HD-CVI, AHD - Factory Set (Specify When Ordering)
Lens	3.6mm MP Lens - 80° HFOV
Back Light Compensation	Off / BLC / HSBLC
D-WDR	Off / 0~8
SENS-UP	Off / X2 ~ X30
DNR	Off / Low / Middle / High
LED Brightness	Controlled Via Plug-In Rotary Switch (Supplied)
Motion Detection	Off / On
Image Mirror	Supported
Privacy Masks	4 Masks
Material	AISI 316L Marine Grade Stainless Steel
Power	DC12V ± 10% / Max Power (LEDs on Full) 4.0 Watt
Weight	0.760KG
Dimensions	49.5mmø x 70mm (L)
Environmental / EMC	EN60529 IP68 / EMC EN60945 (TBC)
Operating Temperature	-20°C ~ + 60°C / 10%~85% Humidity

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# IRIS

## IRIS730/740

Multi-Format Range of Through Hull Cameras



### Key Features:

- IRIS740 Model Compatible with Raymarine MFD's (Axiom / LH2 and above) and Furuno Time Zero v4.1 and above.
- IRIS740 Model PoE and 12VDC
- IRIS730 Model features multiple formats - CVBS (Analogue) / HD-TVI / HD-CVI and AHD. PAL/NTSC Switchable
- HD-TVI/CVI & AHD provide Hi-Def Video in Real Time without Network Latency Problems
- Rugged Hard Anodised Case
- Aluminium Bronze Bezel
- IP68 Waterproof
- Plug and Play Connectivity
- Low Power

### Applications:

- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing, Sports Fishing & Hunting
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

Introducing Iris's 7xx series of Through Hull Cameras, providing fantastic sub surface visibility in Analogue, HD-TVI / HD-CVI / AHD and IP Formats

The IRIS740 delivers crisp 1920 x 1080P Resolution 2MP Hi-Def video onto compatible chartplotters and on-board computer based systems and with optional PoE, installation couldn't be simpler. The IRIS740 is currently compatible with Raymarine (LH2 and above), Axiom and Furuno Timezero v4.1 and above, with more MFD models currently in development. IRIS740 features PoE and 12VDC.

For viewing on all chartplotters with composite video input, TV's with AV input or for interfacing into a PC via a video capture device, the IRIS730 features a high resolution analogue camera with SONY EFIO-P chipset, 1000TVL resolution, WDR (Wide Dynamic Range) and DNR (Digital Noise Reduction) processing as well as user configurable setup parameters via a plug in configuration key pad.

The IRIS730 can also be configured to output HD-TVI / HD-CVI and AHD analogue High Definition formats, providing up to 1920x1080P resolution in real time (without the latency issues sometimes apparent with IP systems). Set to TVI and use in conjunction with Iris HVR's or Video Switchers with HDMI output for real time high definition on MFD's with digital inputs, such as Garmin's 8000 series chart plotters.

Iris's Through Hull cameras have an aluminium bronze bezel, hard anodized body and reinforced, scratch resistant, optically clear lens window.

Iris Through Hull cameras produce excellent, high resolution video and are ideal as part of a sports fishing monitoring system, for sub-surface security, monitoring running gear or simply as a camera for watching the amazing world beneath the waves!

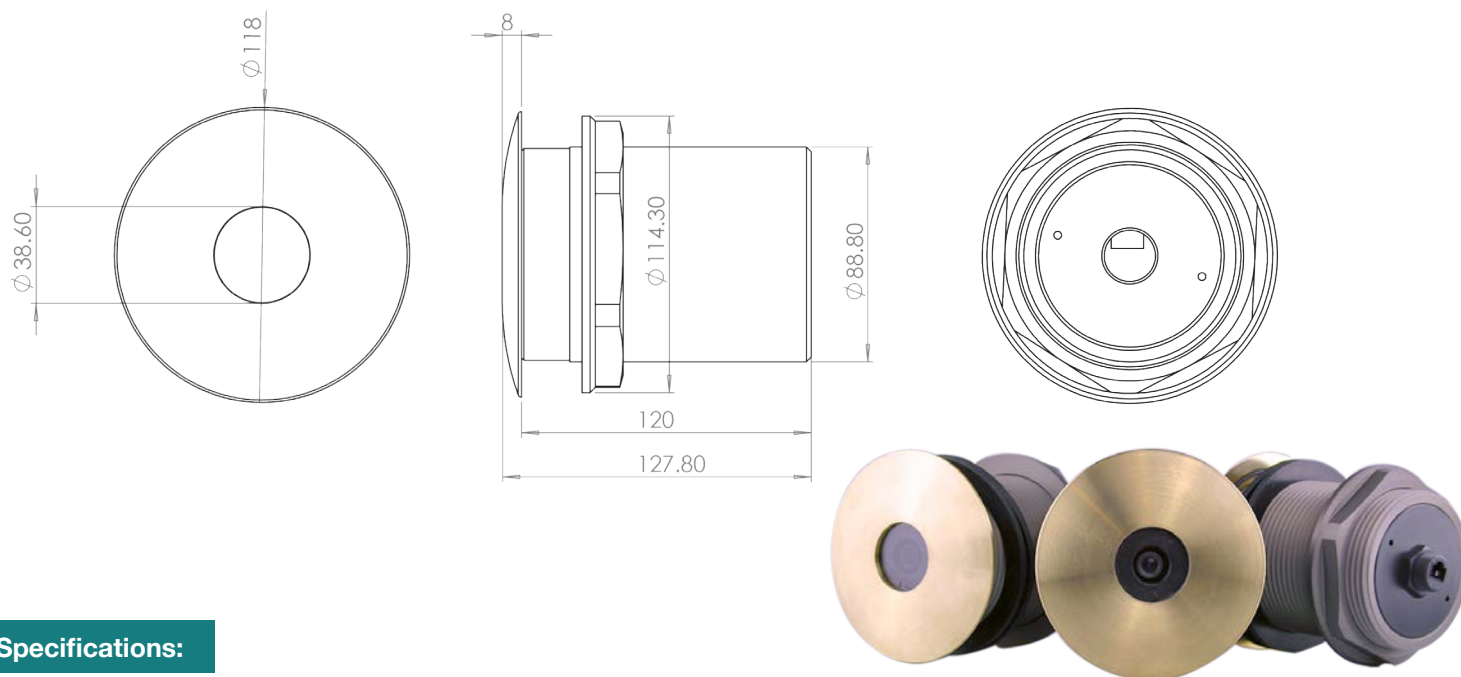


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# IRIS

# IRIS730/740

## Multi-Format Range of Through Hull Cameras



### Specifications:

	IRIS730 (CVBS MODE)	IRIS730 (HD-TVI/CVI/AHD MODE)	IRIS740 IP Model
Sensor	1/3" Panasonic CMOS Sensor		1/4" CMOS Sensor
Resolution	1000 TVL	1920x1080	Variable - 1920x1080P (2MP) Max
Interface	NA		RJ45 10/100 Base T Ethernet
Video Processing	1VP~P CVBS Composite Video 75Ω	HD-TVI / HD-CVI / AHD Switchable	H.264 Codec / Dual Stream
Protocols / Video Format	PAL / NTSC Selectable	HD-TVI / HD-CVI / AHD	TCP/UDP/HTTP/Multicast/UPnP/NTP/RTSP/ONVIF
Onvif	NA		Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	NA		
Lens / Field of View	3.6mm Standard (80° HFOV) / 2.5mm (120° HFOV) Option Available		
Mirroring	Horizontal & Vertical - Configure via OSD Menu		Horizontal & Vertical - Configure via Browser
Automatic Gain Control	Supported / Multiple Levels		
Compatibility	All MFD's with Composite Video Input, TV via AV Input, CMAC Systems	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Converter, MFD's via IRIS NVR/HVR, via IRIS604 Switcher (TVI) and IRIS1608 Switcher (TVI), CMAC Systems	Raymarine / Axiom (LH2 or higher), NAVICO MFD's inc SIM-RAD / LOWRANCE, B&G, Furuno Time Zero v41 or higher, PC based systems, MFD's with digital (HDMI / DVI) Input, MFD's via IRIS NVR/HVR, IE Browser, CMAC Systems
Operating Temperature	-30 ~ +60 °C		
Connections	Video: BNC 75Ω Female Connector / DC Power Socket		Water Resistant RJ45 Socket / DC Power Socket / Female BNC (1090)
Material	Hard Anodised Black Aluminium 6082 (HE30) Body / Aluminium Bronze Bezel. Supplied with Rubber Washers to insulate housing from hull.		
Power	12VDC < 0.2A Max.		PoE IEEE802.3af / 12VDC <1A Max.
Weight & Dimensions	Bezel ø: 118mm / Panel Cut Out ø:90mm / Overall Length: 128mm / Depth Behind Panel: 120mm : Weight: 1.55Kg		
Environmental	IP68		

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# IRIS

# IRIS250

Professional Thermal Imaging Hand Held Scope



## Key Features:

- 400x300 Resolution / 17 $\mu$ m / 19mm Lens (25mm Option)
- 50Hz Refresh Rate for Realtime Imaging
- 5 x Colour Palettes
- Laser Pointer
- Composite Video Output (PAL / NTSC)
- Built In WiFi to View & Store Video & Photos on Smartphone or Tablet
- 5 Hour Battery Life
- Digital Zoom x2 / x4
- Adjustable Viewfinder
- IP66 Environmental Protection

## Applications:

- Navigation & Situational Awareness
- Man Over Board Searches
- Law Enforcement
- Search & Rescue
- Hunting & Outdoor Activities
- Security Patrols
- Engineering

See beyond the visible spectrum with the latest generation of IRIS250 Thermal Hand-scopes, small enough to fit in your pocket yet boasting a feature set that blows the competition out of the water.

With an impressive 400x300 resolution at 17 $\mu$ m pitch, a premium quality 19mm lens and 50Hz refresh rate, the camera delivers smooth, crisp night vision displayed onto the scopes high bright screen.

A composite video output is built in to relay footage onto an auxiliary screen and WiFi is also provided to stream live video onto your smart phone or tablet. Download the camera's App and you can also store video footage and snapshots on your device. Distant objects can be magnified with the camera's x2 and x4 digital zoom feature and a cross hair overlay is also available. In addition to the high resolution sensor, advanced edge detection processing is employed to further enhance the clarity of the image. The camera features selectable colour palettes which help to accentuate differences in scene temperature to make objects easier to detect.

As you would expect from a product of this quality, the scope is extremely rugged with a rubberised over-mould to protect from drops, shock and vibration and a water ingress protection rating of IP66. The built in battery can last over 5 hours between charges and is re-charged via a mini USB port (charger supplied).

As well as a professional night vision imager, the IRIS250 also features a long range laser pointer to help identify and point out the position of objects and targets.

The IRIS250 is a great all round night vision tool for marine use, hunting and outdoor leisure, law enforcement and emergency services.

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# IRIS

# IRIS250

## Professional Thermal Imaging Hand Held Scope

### Specifications:

Detector Resolution	400 x 300 @ 17µm
Spectral Range	8µm ~ 14µm
Lens	19mm: 19.0 x 14.5° / 25mm (option) 14.6 x 11.1°
Screen	Full Colour 0.2" LCOS
Viewfinder	Monocular, diopter - adjustable ± 4
Refresh Rate	50Hz
Digital Zoom	x2, x4
Colour Palettes	Black Hot, White Hot, Red Hot 1, Red Hot 2, Red Hot 3
WiFi	Built In
Battery	Internal Li-Ion Battery, 3.7V.3200mAh

Operation Time	>5 Hours
Charging	via USB power adapter, max 10W
Video Output	Composite Video (PAL / NTSC) via MCX Connector
Operation Temperature	-20 ~ 50 °C
Storage Temperature	-30 ~ 60 °C
Humidity	10% ~ 95%
Shock	10Hz ~ 150Hz ~ 10Hz 0.15mm IEC60068-2-6 / 1m Drop
Environmental Protection	IP66
Weight	IRIS250-19: 350g / IRIS250-25: 375g
Dimensions	IRIS250-19: 160x67x62mm / IRIS250-25: 168x67x62mm



### Detection

Human (1.8m x 0.5m)	IRIS250-19: 500m / IRIS250-25: 700m
Vehicle (2.3m x 2.3m)	IRIS250-19: 1300m / IRIS250-25: 1700m

### Recognition

Human (1.8m x 0.5m)	IRIS250-19: 300m / IRIS250-25: 350m
Vehicle (2.3m x 2.3m)	IRIS250-19: 500m / IRIS250-25: 700m



IRIS250-25: 25mm Lens Option Model



Face on View with Laser Pointer



Under-side View with MCX Connector for Video Output, USB Charger connector and 1/4" UNC Tripod Fixing Point

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# IRIS

## IRIS-IX8

Dual Spectrum Temperature Monitoring Camera



### Key Features:

- 256x192 Thermal Resolution
- 1920x1080 Visible Camera
- IP & Analogue Outputs
- 16x Digital Zoom
- Alarm Contact
- <65mK Sensitivity
- IP66 Environmental Rating
- Extremely Robust Cast Housing
- Multiple Temperature Measurement Rules
- Motion Alarms
- Object Left / Object Removed Alarm
- Temperature Range -40°~+150°C
- Image Enhancement
- Easy to Install

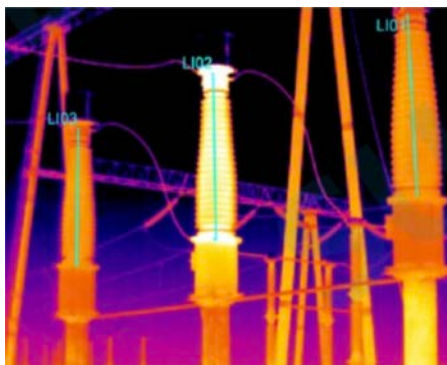
The IRIS-IX8 Thermal Monitoring Camera provides boat owners, engineers, managers and mechanics peace of mind by monitoring critical equipment on board or in other hazardous environments. Use the IRIS-IX8 to keep check on engines, exhaust manifolds, electronics cabinets, shaft bearings and other vital equipment on board before serious problems develop.

The IX8 isn't limited to marine applications. The camera is a vital tool for any process or application where temperature could be an issue, such as data center and control room monitoring, within electrical cabinets and as part of manufacturing and production lines. The IX8 can be used as a presence detection tool for monitoring Illegal Encroachment into protected areas.

With various different methods of measuring temperature (including temperature increase, temperature comparison), alarms over IP and via contact closure, motion detection, left object detection and object removed detection, the IX8 is a powerful detector with added features to complement your on board security system as well as your fire safety system.

### Applications:

- Engine Room Monitoring
- Deck / Companion Way Monitoring
- Electrical Cabinet Monitoring
- Data-Center Monitoring
- Process / Manufacturing Monitoring
- Thermal management Applications
- Monitoring Illegal Encroachment
- Gas and Liquid Leakage Monitoring



Line Temperature Measurement example.



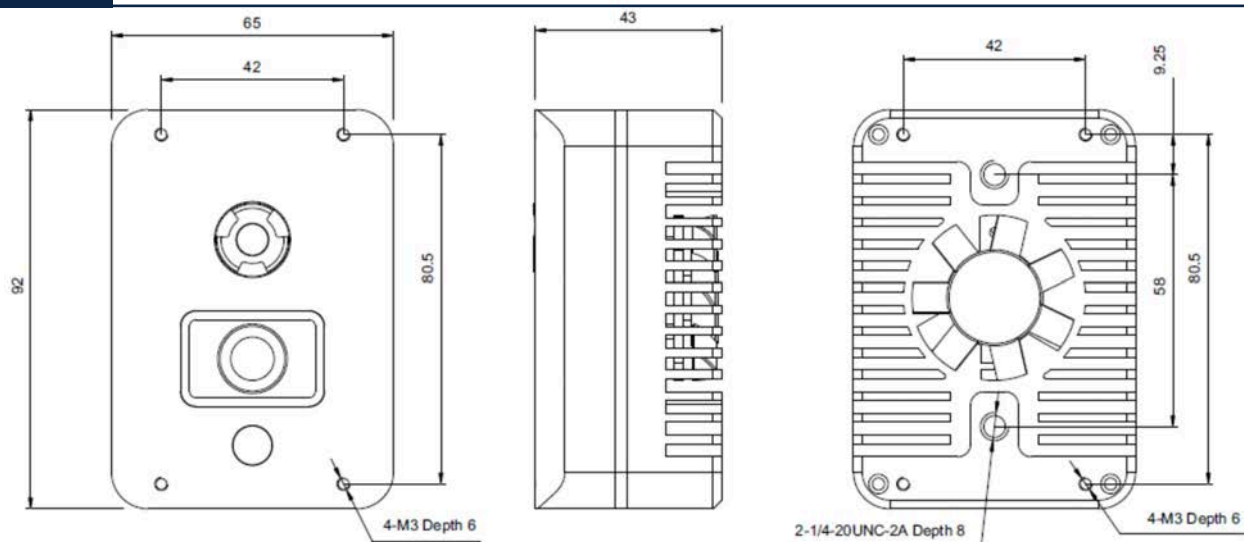
Area Temperature Measurement example.

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# IRIS

# IRIS-IX8

## Dual Spectrum Temperature Monitoring Camera



### Specifications:

	IRIS-IX8
Thermal Detector Type	Uncooled VOx Micro Bolometer 256 x 192
Thermal Camera Resolution	256(H) x 192(V) - Image can be scaled up to 704 x 576
Thermal Sensitivity	<65mK @ F1.0, 300K
Spectral Range	8 ~ 14μm
Image Settings	Brightness / Sharpness / Contrast / Mirror / FFC / 3D DNR
Colour Palettes	White Hot / Black Hot / Rainbow / Ironbow / + 17 additional Colour Modes
Lens / Field of View	Fixed F1.0 Lens - H: 95° x V: 75°
Visible Camera Sensor	1/2.8" Sony CMOS
Effective Resolution	1920 (H) x 1080(V)
Shutter Speed	1/5 ~ 1/20,000s
Min Illumination	0 Lux with LED ON
Lens / Field of View	Fixed F2.0 Lens - H: 136.2° x V: 77.3°
Zoom	Digital Zoom 16x
Alarm Functions	Motion Detection / Disk Alarm / I/O Alarm / Temperature Alarms
IVS	Perimeter, Single Virtual Fences, Double Virtual Fences, Object Left, Object Removed
Analogue Video Output	1V P-P Composite Video 75Ω
Power	+12VDC
Operating Temperature	-40°C ~ +150°C
Dimensions	92(H) x 65(W) x 43(D)mm
Weight	500g
Material	High Strength Aluminium Die-Cast, Anodised, Anti Corrosion Coating, Nitrogen sealed.

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# IRIS-CLOUDLINK2

## Subscription Free Cellular 4G Modem / WiFi Hotspot



### Key Features

- View your onboard devices remotely via 4G / WiFi
- Available for Multiple Regions
- Compatible with all Major Cellular Providers
- No Recurring Subscription Charges! Pay Only for Data!
- Auto Fail-over Between Cellular & WiFi
- Wireless Access Point with Hotspot Functionality
- Easy Set Up with User Accessible SIM Tray
- Small, Compact and Tough Case - Perfect for Marine or Vehicular Applications
- Low Power
- Low Cost

### Applications

- Remotely View Your On Board Cameras
- Check Up on Contractors
- Vehicular Monitoring
- Emergency Service Vehicle Support Monitoring
- Fishing Vessel Surveillance & Catch Monitoring
- Check Up on Your Assets From Home or Office

With a Cloudlink modem hooked up to your onboard camera network, gain peace of mind by viewing and controlling your devices from your home, office, or even from your cellphone or tablet whilst having dinner in the marina restaurant!

The latest addition to our Cloudlink range of remote connectivity tools, the Cloudlink2 is a low cost, small footprint 4G router with WiFi failover designed to allow connection to your remote devices via your preferred cellular network or WiFi when in range of a configured network. Acting as a WiFi accesspoint or hotspot, Cloudlink also allows you to access the internet from other devices such as laptops and tablets.

Cloudlink2 works as an access point when in range of a configured WiFi network, such as marina's WiFi, meaning you can dial in and connect to your devices over a WAN connection with no cellular data costs. If the boat is taken outside of WiFi range but still within coverage of your cellular network you can also dial in for the cost of your standard data charges.

With Cloudlink, you pay only for the data you use and as the system is compatible with all major service providers you can choose your own data plan. With Cloudlink, there are no additional subscription charges, unlike most other providers. At Iris, our concern is providing the tools to view and protect your boat, without loading up unreasonable and unnecessary costs.

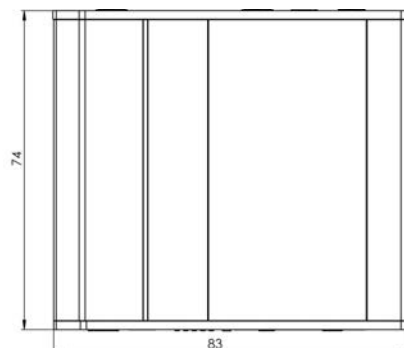
As well as marine applications, Cloudlink can also be used extensively in emergency service and other vehicular applications, where remote monitoring and surveillance protects assets and enhances the safety of operatives. Fire trucks / Police vehicles / Buses and many other applications where the ability to remotely keep check of people or assets will all benefit from the deployment of an onboard Cloudlink2 modem to facilitate access to onboard camera systems and devices.

Available for multiple regions worldwide.

# IRIS

# IRIS-CLOUDLINK2

## Subscription Free Cellular 4G Modem / WiFi Hotspot



### Specifications:

Mobile	4G / LTE (Cat 4), 3G, 2G
CPU	Atheros, MIPS 24Kc, 400MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Power	4 Pin Power Socket, 9 ~ 30 VDC
SIM	1 x Removable External SIM Holder (2FF)
Antenna Connectors	2 x SMA (Mobile), 1 x RP-SMA for WiFi
Ethernet	2 x 10/100 Ethernet Ports: 1 x WAN (configurable as LAN), 1 x LAN
WiFi	IEEE802.11b/g/n, Access Point (AP), Station (STA)
Inputs / Outputs	4 Pin Socket: 1 x Digital Input, 1 x Digital Open Collector Output
Status LED's	3 x Connectino Type; 5 x Signal Strength, 2 x Ethernet Activity, 1 x Power
Operating Temperature	-40°C ~ +75°C
Housing	Extruded Aluminium Hard Anodysed, DIN Rail Mount Option / Surface Mount. Plastic Side Panels
Dimensions (W x H x D)	83 x 25 x 74mm
Weight	0.135KG
Operating System	RutOS (OpenWrt based Linux OS)
Mobile Features	Auto, APN, Band Lock
Network Protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network Backup), VLAN, QoS, Load Balancing
Security	DDOS Prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention, Port Scan Prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacksw
VPN and Tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection Monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud Solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS Features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Tra c Logging

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*Downtown Fort Lauderdale January 22*







*www.boat-cameras.com*

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