

Introduction...

Iris have been designing and manufacturing marine cameras and accessories since 2003. Whereas we've mainly focused on the luxury / leisure marine market until now, 2019 saw Iris expand it's focus futher into commercial and professional marine markets.

As well as our exciting range of New Ruggedised PTZ and Night Vision cameras detailed over the next few pages, we have designed a number of new products for more professional applications.

Using marine grade stainless steel, we've taken our best selling X60 range of miniature fixed cameras and produced the SX60 - a range of tiny, solid, multi-purpose cameras, available in analogue, HD and IP formats to suit a range of applications with uncompromising performace and quality.

We've also taken our IRISx90 bullet style stainless steel camera and incorporated our new range of miniature thermal imaging cores to produce possibly the toughest and most affordable fixed night vision camera available anywhere in the world. The IRIS092, available in 384x288 and 640x512 resolutions.

We are most excited about our New Sentinel range of super-tough controllable cameras, featuring analogue, IP and mutilple thermal night vision options - including the revolutoinary new Sentinel C Colour Thermal Range (see pages 6&7).

Our firm position within the leisure / luxury marine market hasn't shifted and now we are sure our customers in the commercial marine, emergency services and military industries will soon be able to benefit from our increasing range of rugged cameras, night vision aids and ancillary products.



Sentinel

New Range of Professional, Rugged PTZ Cameras





STYLISH & ROBUST

In developing the cameras robust form factor we've taken design cues from our best selling NightRunner range of cameras and applied a host of improvements to deliver a solid yet lightning fast controllable housing, with smooth, accurate positioning.

Sentinels machined aluminium housing has been anodysed and powder coated for additional protection. Cooling fans and window heaters have been added as standard. Additionally, we've made a number of improvements to the cameras thermal management, making the camera as effective in sub-zero temeratures as well as in the tropics.

As ever, we've designed the Sentinel with the installer in mind as well as the cameras overall performance. The cameras single connector is now centered whereas before it was off-set and now connects to a new umbilical cable designed for our new combined power, video and data cable that will facilitate much longer cable runs without the voltage drop restrictions that are inherent with balun based transmission systems.

The camera ships with a handy interface box into which you can connect your controller, system power and the video output meaning only one power connection is required and everything connects to a single point for easy system management.

ADVANCED TECHNOLOGIES

The NEW Sentinel range of cameras from lris has been designed to offer customers the most comprehensive choice of vision technologies available on the market.

Iris have manufactured Thermal Imaging cameras for over ten years, supplying some of the worlds leading OEM boat builders, fire truck manufacturers, law enforcement agencies (on and off the water) and private boat owners. With Sentinel, like its predecessor, NightRunner, we've worked hard to deliver industry leading performance at a price within the relms of the wider boating market.

Our new 17µm Vanadium Oxide sensor delivers with superb clarity, especially when combined with our ICE™ image processing algorythms which dynamically analyse the video to sharpen edges, improving the picture further still.

Sentinel is now also available as an IP camera for networked systems. For hybrid systems our IP models also feature composite video out and serial data connectivity to make it a truly versatile solution. Finally, we can also offer the cameras with a Tilt Axis Gyro Stabilised option for ultimate functionality.

But perhaps our most exciting new development is a completely new night vision technology we call Super Low Light (SLL)...

COLOUR THERMAL

Embracing the very latest in digital sensor technology, Iris are proud to introduce our new Sentinel-C Range of Dual Payload (Day / Thermal) cameras.

Sentinel C cameras incorporate video from their high quality thermal night vision cores with regular daylight camera video to produce an enhanced colour thermal composite image where the regular light spectrum video is enhanced by overlaid night vision video.

This results in the optimum night vision and low light device where users view the regualr light spectrum video blended with heat signals overlaid onto the video to provide the ultimate navigational camera available.

With the Sentinel C, users can now positively indentify objects such as channel markers and marker boys.

As well as the enhanced colour overlay feature, Sentinel C cameras also feature ICE+™ an enhanced edge detection algorithm which produces and overlays clear and defined edges around objects to make them instantly stand out in low light and poor thermal contrast scenes.

If all this wasn't enough, Iris Sentinel C cameras also feature gyro stabilisation making them essential for all boaters.





Sentinel

Professional PTZ Cameras for Extreme Environments



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, Anodysed 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 Sentinel cameras are available in a number of different formats depending on you requirement and budget, and are built to withstand the toughest of environments.

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

The new line up of Sentinel cameras has been conceived to suite a multitude of applications and scenarios. 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. Sentinel High Definition IP cameras deliver super-sharp video, even in low light, and the New Sentinel C Colour Thermal Models use the very latest in digital video processing technology to blend thermal 'hot spot' video over the top of a high resolution colour camera to enable the operator to discriminate between objects in all conditions. Sentinel C cameras also feature our New ICE+TM image enhancement technology to draw defined edges around objects making them easy to pick out in low thermal contrast scenes. To compliment Sentinels standard wealth of features, each camera is also available with a tilt axis gyro stabilised option to compensate for vessel movement.

Sentinel cameras feature rugged aluminium housings which are anodysed 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 overheading, condensation and freezing up.

Thermal imaging models feature multiple colour palettes, ICETM & ICE+TM Image Contast Enhancement, 17µ sensor and a thermal sensitivity of less than 50mK.





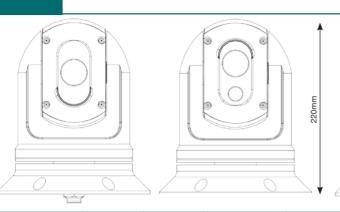


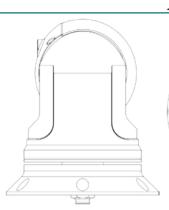


Sentinel

Professional PTZ Cameras for Extreme Environments

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	36x 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-X100	Super Low-Light	1280 x 1024	Various	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-290	Thermal (Analogue) Vox Microbolometer, 17µm, 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, 17µm, 30Hz, <50mk	640 x 512	25mm 24.6°H x 18.5°V	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-4290	Thermal (IP) Vox Mi- crobolometer, 17µm, 30Hz, <50mk	384 x 288	20mm 18°H x 14°V	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-4390	Thermal (IP) Vox Mi- crobolometer, 17µm, 30Hz, <50mk	640 x 512	20mm 18°H x 14°V	4x Digital (stepped)	NA	NA	NA	NA	Not Required
S-295	Thermal (Analogue) Vox Microbolometer, 17µm, 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, 17µm, 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

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

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

IP Model Specs:	Part Number
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 (Addional RS485 Serial Data Connection - Pelco D / Iris Variant)
Protocols	ONVIF2.4, L2TP, IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PP-PoE, RTP, RTSP, DNS, DDNS, NTP, FTP, UPnP, HTTP, SNMP, SIP
Power	+12VDC / +24VDC. Max Consumption 36W (LED's ON)
Weight	зКG
Operating Temperature	-50°C ~ +65°C / Humidity: 10% ~ 95% RH
Environmental	IP67 / TVS 4000V Overvoltage / Lightning Protection





Sentinel-C

Colour-Thermal Dual Payload Professional Day/Night Vision Gyo Camera



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, Anodysed 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 algorythms, 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 algorythms 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 odges and colour thermal video.

As well as Edge+ enhanced visibility, Sentinel C cameras can also overlay colour thermal hotpsot 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, and 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 resuce professionals.

Sentinel cameras feature rugged aluminium housings which are anodysed 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 overheading, condensation and freezing up.



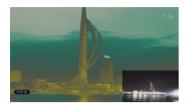






Sentinel-C

Colour-Thermal Dual Payload Professional Day/Night Vision Gyo 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 Fusion Mode A - Various Palette Examples Camera overlaid onto thermal image)

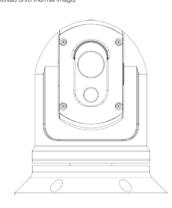


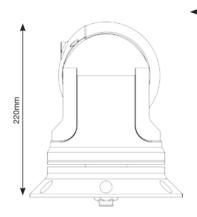


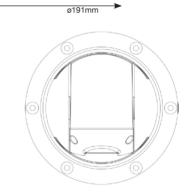
Fusion Mode A - Various Palette Examples



Fusion Mode A - Various Palette Examples







Specifications:

Model No.	Payload 1	Resolution	Lens	Zoom	Payloa	d 2	Resolution	Lens	Zoom	Illumination
S-C295	Analogue Day Module	800 TVL	8mm 50° HFOV	4x Digital (stepped)		al Uncooled hutterless	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)		al Uncooled hutterless	640 x 480	19mm - 32°HFOV	4x Digital (stepped)	Not Required
Pan Deta	iils	Continuous Rotat	tion 0~360° 0.5°/s	~ 80°/s		Colour Palet	tes	12 Colour Pa	alettes (Thermal Co	re)
Tilt Deta	ils	-25° ~ +90° (Auto	Reverse) 0.5° ~ 60	0°/s		Operation M	odes:	Day Mode: Low Light Visible Camera Night Mode: Thermal Camera		
Video Fo	Video Format 1V P~P Composite Analogue Video 75Ω - PAL / NTSC				Fusion A Mode: ICE+ Edge Enhancement from Daylight Car era overlaid onto Thermal Image Fusion B Mode: Day Camera Image Overlaid with Hotspo					
Presets /	Patrols & Patterns	100 Presets, 6 Patrols (up to 18 presets each), 4 Patterns				from Thermal Camera PIP A Mode: Full Screen Daylight Camera era Inset				
Commun	ications Interface	RS485 Serial Data	1					PiP Mode B: Full Screen Thermal Camera with Day Camera Inset		
Protocol	S	Pelco D, Iris Varia	ant, 9600 Baud			Thermal Sen	nal Sensitivity / Range <50mK / 8~14µ			
Power		+12VDC / +24VDC.	Max Consumption	n 36W (LED's ON)		Thermal Pixel Pitch 17μm				
Weight	Weight 3KG			Visible Camera Illumination 0.05 Lux		5 Lux				
Operatin	Operating Temperature -50°C ~ +65°C / Humidity: 10% ~ 95% RH		Housing Material / Colour Aluminium Body, Anodised & Powder Coated. Whit Standard - Bespoke Colours Available - POA							
Environn	nental	IP66 / TVS 4000V	Overvoltage / Ligh	ntning Protection		Gyro Stabilisation Tilt Axis				





IRIS-Sx60

316 Marine Grade Stainless Steel Static Dome Camera



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)
- 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 and 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 Convertor Hardware Depending on Model Of MFD



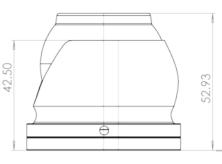


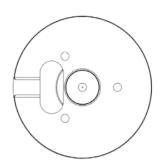


IRIS-Sx60

316 Marine Grade Stainless Steel Static Dome Camera







Camera Options:

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



Specifications:

	IRIS-S060	IRIS-S160	IRIS-S460		
Sensor	1/3" Sony (CCD Sensor	1/4" CMOS Sensor		
Resolution	1000 TVL	1000 TVL 1920x1080			
Interface	N	IA	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	N	IA	Profile S v2.4		
Bitrate	N	IA	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			
Mirroring	Horizontal & Vertical - (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 Convertor, MFD's via IRIS NVR/HVR		Raymarine / Axiom (LH2 or higher), Furuno Timezero v4.1 and 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 Co	Water Resistant RJ45 Socket / Non PoE with DC Power Socket			
Material					
Power	12VDC < 2	PoE IEEE802.3af / 12VDC <200mA Max.			
Weight & Dimensions	0.420Kg / 59.5mm ø x 52.93mm H				
Environmental		IP66			

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Wide Angle Fixed Micro Dome Camera



Key Features:

- Available in Analogue, Hi-Def Analogue (TVI/CVI/AHD) and IP Formats
- IP Model (460) directly compatible with Raymarine (LH2 and above), Axiom, Furuno TimeZero 4.1 and above MFD's
- TVI/CVI Model Features 1080P Real Time Resolution
- IP Model (460) 12vDC and PoE
- Extremely Compact Only 6cm Diameter
- Built In Infra Red Illumination
- High Quality Housnig Anodised and Powder Coated
- 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 best Selling x60 range of miniature marine dome cameras, launched originally in 2006 is one of the most versatile on board camera options on the market, available in analogue, high definition analogue (HD-TVI / HD-CVI / AHD) and IP formats.

Measuring only 60mm in diameter and 58mm high and able to withstand a wide range of temperatures and environmental conditions, the camera is perfect as a back-up camera, for engine room monitoring, as a docking camera and for cockpit and companionway monitoring. In fact IRISx60 cameras can be used for pretty much any on board surveillance and monitoring application.

The analogue version of the camera (part number IRIS065) is available in PAL or NTSC formats and in standard or mirror image options.

The IRIS066 model features 4-in-1 video options and can be selected between analogue, HD-TVI, HD-CVI and AHD. Anologue Hi-Def formats (such as HD-TVI) produce 1080P quality high definition video in real time and arent susceptible to network latency delays. When configured to HD-TVI, the IRIS066 can be used in conjunction with Iris's Hybrid recorders and Quad switchers to provide an HDMI feed, compatible with plotters such as Simrads NSO and Garmins 8000 series MFDs.

If you need an IP solution, the IRIS460 outputs high definition 2MP 1080P resolution video, compatible with Raymarine Lighthouse 2 and above, Furuno TimeZero v4.1 and above and other MFD's when connected via an IRIS Hybrid recorder (HDMI compatibility required - such as Garmin's 8000 range). Compatibility with other major chart plotter manufacturers is scheduled throughout 2020. Supplied as standard with a 3.6mm lens (80°HFOV) and available with a 2.5mm (110°) option.









IRIS-035

Wide Angle Fixed Micro Dome Camera



Key Features:

- Smallest Marine Dome Camera Available (48mm High)
- Built In Infra Red Illumination (8 meter range)
- 540TVL Resolution
- Wide Angle Fixed Lens (2.3mm 120°)
- Improved Housing Design
- Compatible with all MFD's with Composite Video (Analogue)
- Available in PAL/NTSC formats and with Mirror Option for Reverse Viewing
- High Heat Resistance Perfect for Engine Room Monitoring
- 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

For when size really does matter, Iris Introduce their compact, high resolution fixed day/night dome cameras, the IRIS035.

Measuring an amazingly compact 48mm x 48mm, the IRIS035 is the smallest marine camera available. But despite it's miniature size, it is also one of the most highly spec'd.

The IRIS035 features a 540TVL high resolution camera module inside its discreet and compact housing, along with 12 micro-LED's that allow visibility of up to 8 meters in complete darkness. To boost picture clarity further, in low light conditions the camera switches from colour to monochrome.

And if this wasn't enough, we've modified our design as a response to customer requests in order to fit an ultra wide 2.3mm lens, providing an amazing 120° horizontal field of view! Now, with a single IRISO35 you can achieve the same field of view previously only possible by using 2 separate cameras, representing astounding value for money!

Because the camera is so small, feature packed and indeed rugged – with an IP66 rating, the IRIS035 is ideal as a docking camera, back-up camera, engine room camera and/or part of an integrated on board security system.

The IRIS035 is available in PAL and NTSC analogue formats and in standard view or mirror view options, and is directly compatible with all chart plotters with analogue video inputs.









4K HD Mid Range IR LED Hybrid Fixed Dome Camera



Key Features:

- Dual Format (CVBS Analogue & IP) Hybrid Camera
- Ultra High Definition 3840 x 2160 Resolution (IP Mode) 8MP
- H.264 / H.265 / MJPEG Compression
- Wide Dynamic Range / Digital Noise Reduction
- User Selectable Resolutions / Multi Stream (IP Mode)
- High Resolution 1000 TVL (Analogue Mode)
- PoE IEEE.802.3af / +12VDC
- Digital Zoom/Focus & Autofocus (IP Mode)
- 3.3mm ~12mm Lens / 97.5°~38.5° HFOV
- High Power Infra Red LED (30m Range)
- Stylish, Rugged Form Factor (IRISx60 Style)
- IP67 Environmental Protection

Applications:

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

The latest model in the IRIS8x range, the new x83 Hybrid Fixed Dome Camera from Iris boasts an impressive 8MP resolution for applications where the very highest picture quality is required. Video resolution can be set to lower definitions if required and the camera features a CVBS analogue video output for maximum compatibility.

Styled around the best selling IRISx60 dome camera, the x83 replaces the IRIS080 whilst conforming to the styling of our well known dome form factor.

The x83 features a user definable 3.3mm~12mm zoom lens, which is controllable from cameras browser interface. The camera also supports manul and automatic focus.

For operation at night and in low light, the x83 features a built in high power infra red LED array to provide visibility up to 30 meters.

For convenience and ease of installation the camera can be powered via Power over Ethernet (PoE) or with a 12VDC supply. and draws less than 9.5W maximum (LED ON).

The IRISx83 is the latest in Iris's expanding range of stylish and hard wearing multi-purpose, high definition cameras and is suitable for many applications ranging from on board security and people monitoring, engine room safety, companionway monitoring, forward and aft viewing and deck monitoring.

The IRISx83 is ONVIF complant and can be used in conjunction with IRIS's HVR range of digital recorders and hubs.







4K HD Mid Range IR LED Hybrid Fixed Dome Camera

IRISx83 Dimensions





Specifications:

	IRISx83			
Sensor	1/2.5" CMOS			
Source Image Size	3840 x 2160			
Electronic Shutter	1/25S ~ 1/100000S			
Iris Type	Fixed Iris			
Min. Illumination	0.024 lux @ F1.2, AGC ON; 0 lux with IR ON			
Lens	Motorized Zoom Lens; 3.3~12mm @ F1.4, Horizontal Field of View (HFOV) 97.5° ~ 38.5°			
Video Compression	H.265 / H.264 / MJPEG (H.264 Compression Standard - Baseline Profile / Main Profile / High Profile)			
Bitrate	VBR/CBR 128Kbps ~ 10Mbps			
Resolution	8MP (3840 x 2160), 2K (2560 x 1440), 3MP (2304 x 1296), 1080P (1920 x 1080), 720P (1280 x 720), D1, CIF, 480 x 240			
Main Stream	Main Stream: 60Hz: 8MP/2K/3MP/1080P/720P (1~30fps) / 50Hz: 8MP/2K/3MP/1080P/720P (1~25fps)			
Sub Stream	60Hz: 1080P (1~5fps) / 720P (1~10fps) / D1 (1~30fps) ~ 60Hz: 1080P (1~5fps) / 720P (1~10fps) / D1 (1~25fps)			
Third Stream	60Hz: 720P (1~30fps) / D1 (1~30fps) / CIF (1~30fps) / 480x240 (1~30fps) / 50Hz: 720P (1~25fps) / D1 (1~25fps) / CIF (1~25fps) / 480x240 (1~25fps)			
Physical Interface	Network: RJ45 / CVBS Output: BNC			
Video Output	CVBS - 1VP~P Composite Video 75Ω - PAL / NTSC Switchable			
Network / Interface Protocols	UDP, IPv4, IPv6, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, 802.1x, UPnP, HTTPS, Qos / ONVIF, GB-T/28181-2011			
Power	DC12V / PoE (IEEE802.3af) / Consumption <9.5W			
Operating Environment	-30°C ~ 65°C, Humidity <95% (non condensing)			
Ingress Protection	IP67			
Weight	Approx 0.75Kg			
Dimensions	Footprint: 113,05mmø x 117.1mm Height			











IRIS-092

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 384x288 and 640x512 Resolutions
- 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.

Available in either 384x288 or 640x512 resolution, 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.

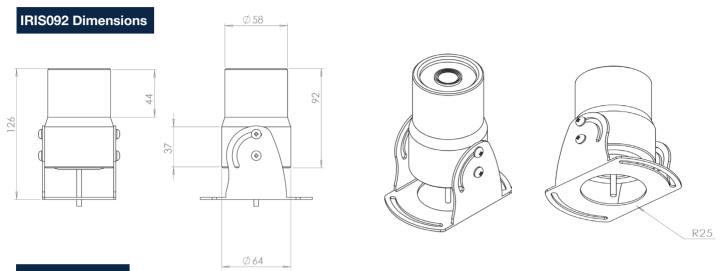






IRIS-092

Marine Grade 316 Stainless Steel Thermal Camera



Specifications:

	IRIS092
Sensor	Uncooled Amorphous Silicone Microbolometer
Resolution	Sensor Resolution 400x300
Pixel Pitch	17µm
Video Processing	1VP~P CVBS Composite Video 75Ω
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	8~14µm
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 75Ω 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 64mmø
Environmental	IP66 (IEC 60529)

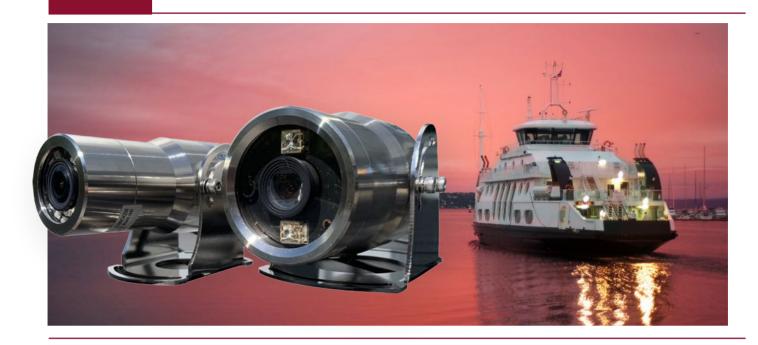








316 Marine Grade Stainless Steel Static Pipe Style Cameras



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)
- 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 and 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).

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.

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 IRISx90 range of cameras is the perfect solution, favoured by luxury boat owners and commercial vessel operators alike.



† May Require Additional Convertor Hardware Depending on Model Of MFD

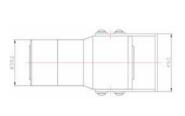


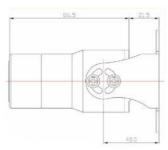




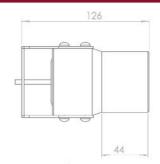
316 Marine Grade Stainless Steel Static Pipe Style Cameras

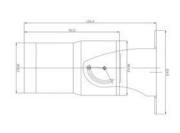
IRIS090 Dimensions





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	N	A	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	N	A	Profile S v2.4	
Bitrate	N	A	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	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Convertor, 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				
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 Subi	mersible Option Available	



IRIS

IRIS-x85

316 Marine Grade Stainless Steel Vari-Focal Static Dome Camera



Key Features:

- Available in multiple formats to suit your requirements: CVBS / AHD/TVI / IP
- 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)
- Built In Infra Red LED Illumination (30m Range)
- PoE Option (IRISS485 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 X85 range of vari-focal marine grade stainless steel cameras are available in multiple formats and deliver the highest quality video and to suit your application.

The range comprises a high resolution analogue solution designed for maximum compatibility with most marine chart plotters (IRIS085), a high definition TVI/AHD model which delivers 1920x1080 resolution in real time† (IRIS1085) and a high definition 2MP IP camera (IRIS485) which is directly compatible with Raymarine chart plotters (running LH2 / LH3 software).

The x85'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.

Each model is fitted with a manually adjustable vari-focal lens which can be set between 2.8mm (XX HFOV) and 12mm (XX HFOV) making the camera extremely versatile and equally useful in close range and longer range applications. High Power Infra Red LED's are build in to provide up to 30m visibility in the dark.

Measuring only 92.5mm high by 142mm in diameter, the x85 range is small enough to provide unobtrusive surveillance and also for use in areas where space is tight, such as engine rooms.

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-X85 range of cameras is the perfect solution



- * Non Standard Finishes may incur additional costs
- \dagger $\,$ May Require Additional Convertor Hardware Depending on Model Of MFD / Screen

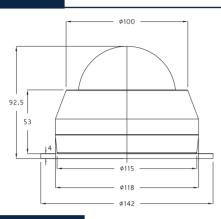


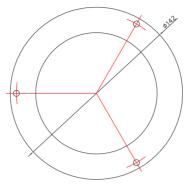


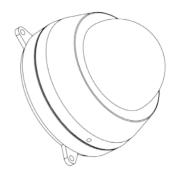




316 Marine Grade Stainless Steel Vari Focal Static Dome Camera







Camera Options:

Model No.	Payload 1	Resolution	Lens	Horizontal Field of View
IRIS085	Analogue	1000TVL	Vari-Focal 2.8mm~12mm	110° (Wide) to 22° (Tele)
IRIS1085	HD-TVI	1920 x 1080	Vari-Focal 2.8mm~12mm	110° (Wide) to 22° (Tele)
IRIS485	IP	1920 x 1080	Vari-Focal 2.8mm~12mm	110° (Wide) to 22° (Tele)



Specifications:

Camera Model	IRIS085	IRIS1085	IRIS485
Sensor	1/2.8" Sony Emo	or CMOS Sensor	1/3" Panasonic CMOS Sensor
Resolution	1280H NTSC / PAL	1080P@30FPS / 1080P@25FPS	1920x1080P Max / Multiple Resolution Options
Minimum Illumination	Colour (Operation: 1.0 Lux / Monochrome: 0.5 Lux / IR LED ON =	0.00 Lux
Lens	2.8	mm ~ 12mm Vari-Focal - Manual Adjustment / DC Auto	Iris
Video Processing	N	IA	H.264 / MJPEG Dual Streaming Supported
Bitrate	N	IA	32Kbps ~ 12Mbps
Framerate	Max. 30fps @ 1920x1080P		
Illumination	24pcs 850nm Infra Red LED Illumination		
LAN Interface	N	IA	RJ45 - 10/100 Base T
Protocols	N	HTTP, RTP/RTSP. TCP/IP, FTP, Telnet, RARP, PPPoe, SNMP, PAP, CHAP, DHCP, NTP, SMTP Client	
ONVIF	N	ONVIF Profile S2.4	
Power Over Ethernet	N	IEEE802.3af	
Mirroring	Horizontal / Vertical Mirroring (through on-screen menu system)		
AGC	Supported: OFF / LOW / MID / HIGH		
Dynamic IP	NA	NA	DDNS / UPnP Supported
Motion Detection	Supported: ON/OFF 4 Zones		
Environmental	Tested to EN60529 IP66		
Material	Marine Grade 316 Stainless Steel		
Operating Temp.	-20 to +55°C / 10° to 85° Humidity		
MFD Compatibility	Compatible with all MFD's with Composite Video Inputs	Compatible with all MFD's featuring Hi-Def (HDMI / DVI) input via IRIS HVR System / HDMI †	Directly Compatible with Raymarine MFD's running LH2 and above operating system / IRIS HVR Systems
Power	12VDC	IEEE802.3af PoE / 12VDC±10%	
Weight & Dimensions	1.3KG / 92.5mm x 142mm Diameter		



 $[\]ensuremath{\dagger}$ May Require Additional Convertor Hardware Depending on Model Of MFD / Screen









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)
- 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

IRIS1036Hi-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 Raymarines 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

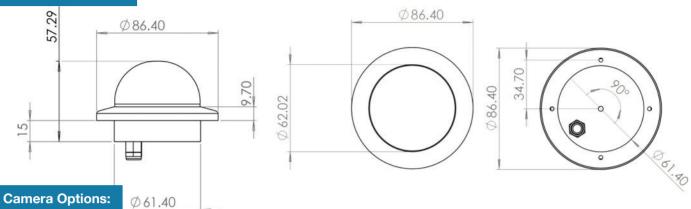






Mini Recess Mount Fixed Domes, Analogue, IP & AHD Models

IRISx36 Dimensions



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



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 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			
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	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Convertor, MFD's via IRIS NVR/HVR	Raymarine / Axiom (LH2 or higher), Furuno Timezero v4.1 and above, 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 / 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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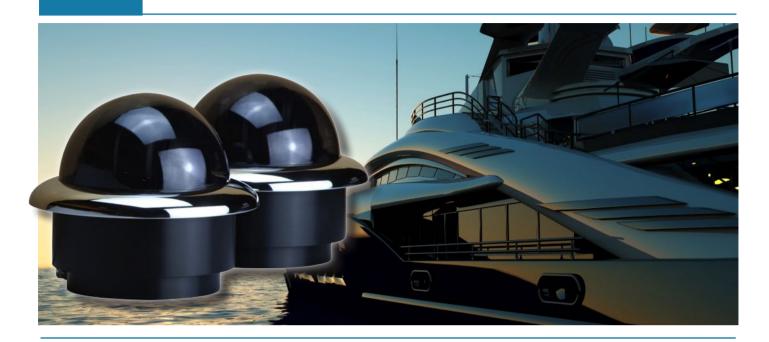


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Mini Recess Mount PTZ Domes, Analogue, IP & AHD Models



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 (IRISS490 IP Model)
- Compatible with Raymarine / Axiom (L2 and Higher) (Video)
- 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.

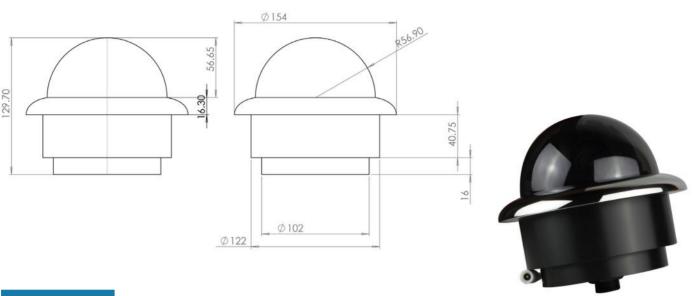
The x106 ramge of cameras delivers high quality video in multi formats and is an extremely versatile device. Perfect for deck and companionway monitoring, on board security and for situation awareness and surveillance applications.







Mini Recess Mount PTZ Domes, Analogue, IP & AHD Models



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 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	N	IA	Profile S v2.4
Bitrate	NA		VBR / CBR 32kbps ~ 8Mbps
Illumination	NA 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 Convertor, 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		









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 Anodysed 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 EFFIO-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 Garmins 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 secu- rity, monitoring running gear or simply as a camera for watching the amaz- ing world beneath the waves!

Onvie

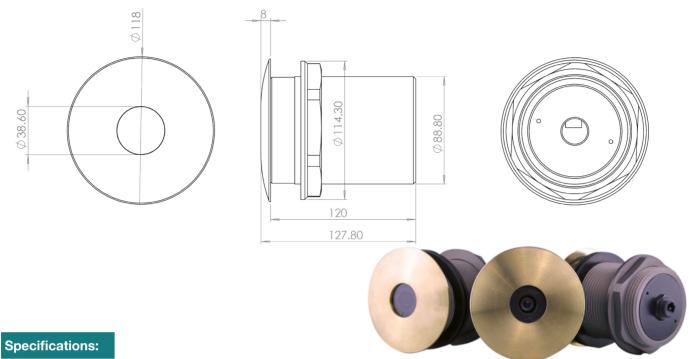






IRIS730/740

Multi-Format Range of Through Hull Cameras



	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 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 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	MFD's with Digital (HDMI/DVI) Input with TVI-HDMI Convertor, MFD's via IRIS NVR/ HVR, via IRIS604 Switcher (TVI) and IRIS1608 Switcher (TVI)	Raymarine / Axiom (LH2 or higher), Furuno Time Zero v4.1 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	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		



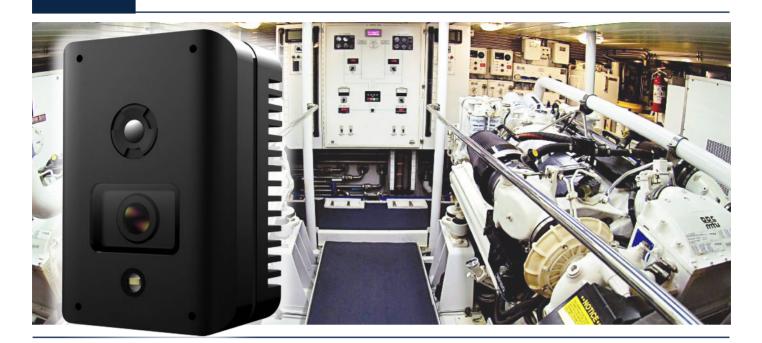






IRIS-IX8

Hi-Res Dual Detector (Visible/Thermal) Monitoring Camera / Alarm



Key Features:

- 256 x 192 Resolution
- 20 Spots/ 2Line/ 16 Detection Areas
- <65mK Thermal Sensitivity
- IP & Analogue Output
- NMEA Alarm Compatibility
- Visible Camera & Thermal Camera
- 8~14µm Spectral Range
- Overlay Thermal Image onto Visible
- Wide Angle (136° Visible/95° Thermal)
- Motion / Disk / I/O / Temperature Alarms
- Digital Image Enhancement
- IP66 Environmental Protection

Applications:

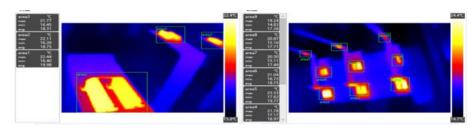
- Engine Room Monitoring
- Deck / Companion Way Monitoring
- Electrical Cabinet Monitoring
- Data-Center Monitoring
- Process / Manufacturing Monitoring
- Thermal management Applications
- Monitoring Illegal Encroachment
- Gas and Liquid Leakage Monitoring

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, 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

The IX8 uses dual sensor visible and thermal imaging technology to build a picture and then monitors the scene for changes in temperature. Users can define zones on screen over specific areas and alarms can be set both to notify min, max and average temperatures and to send alarms when pre-defined thresholds are breached. The IX8 can send alarm notifications on-screen, via email or SMS message. The IRIS-IX8 camera supports up to 9 alarm zones and features an impressive 256x192 thermal resolution - far higher than competitors models.

Footage from the IRIS-IX8 camera can be viewed on computer, mobile device or via a compatible chart plotter via an IP oor analogue connection. The IX8 is a low power device, has a waterproof rugged case to prevent moisture intrusion and drop damage.



Screen Shotes from User Interface showing Numbered Alarm Zones and Corresponding Temperature Details

Colour Coded Thermal Range Key Shown on Right Hand Side.









IRIS-HVR-X

Hybrid Digital / Network Video Recorder Range



Key Features:

- Available in 4, 8 & 16 Channels
- Hybrid Design Supports Analogue, HD-TVI & IP Cameras
- Simple, Intuitive Interface
- Easy Remote Access View and Control Cameras via Smartphoe / Tablet / PC / Mac
- Multiple Alarms
- Motion Detection
- Quick Eject Drive Bay
- Quick & Easy Video Export
- Solid State Drive Anto Vibration
- Low Power Consumption

Applications:

- On Board Security
- Vehicles and Rapid Deploymnet
- Remote Security Applications
- Harsh Environments

Central to any on board CCTV and security system is the digital recorder. Iris's new range of hybrid recorders are designed with solid state technology to make them suitable for use on board boats or all sizes and other mobile applications. Each model is housed in a moisture proof enclosure and waterproof field connectors are supplied.

Available in three sizes, the HVR-X (where X denotes the number of camera inputs, 4, 8 or 16) supports standard composite video (analogue) cameras, high definition HD-TVI cameras and network IP cameras.

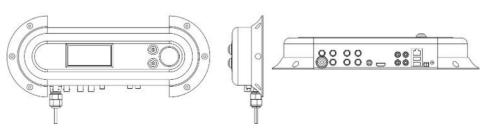
The user interface is simplistic an intuitive, yet extremely powerful and supports all the features usually associated with high end network recorders, such as plug and play connectivity, remote access via a VPN connection, motion detection and pre and post event recording.

Searching for events is also easy using an intuitive 'per channel' timeline. Simply move the time line to the desired position then export your video to a connected USB drive.

The HVR-X also features a 'Quick Eject' caddy and is supplied with a solid state 2.5" drive.

View your cameras across your network using the XMEYE app or on your chart plotter - the HVR-X features both analogue (RCA) and HDMI digital outputs.

The HVR-X also features motion detection and up to four external alarms which can be configured to notify you via the software interface, email or SMS.











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

Applications:

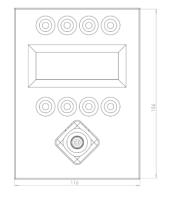
- Work Boat & Commercial Shipping
- Luxury Motor Yachts
- Fishing & Sports Fishing
- Ferry Boats & Passenger Vessels
- Law Enforcement & Emergency Services
- Rapid Deployment Applications
- Vehicle & Transport Applications

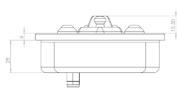
Control up to 16 on board PTZ and Thermal cameras with the stylish IRIS595 panel mount joystick.

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 be operate between 6~36VDC and also features reverse voltage protection.

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











IRIS-TE1 & IRIS596

Control Surfaces



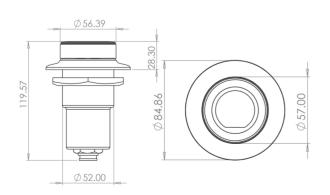
IRIS-TE1 Rotary Encoder with Touch Screen Control

Iris's new TE1 Rotary Controller with touch-screen allows you to access and control the extended functions of your Iris Cameras and Video switchers in a robust and stylish form

A full colour touchscreen is used to select and present camera functions as well as perform camera selection when used with an Iris recorder or switcher.

The TE1 is perfect for augmenting pan and tilt control of your Iris camera via a supported MFD. Use your chart plotter touch screen to drive the camera and the TE1 to select and control extended features such as thermal colour palettes, zoom control, image contrast enhancement, preset and home position selection and much more.

The TE1 is easy to install and build into a marine grade 316 stainless steel bezel. With an IP67 rating, the TE1 can be used both internally and externally.





IRIS-596

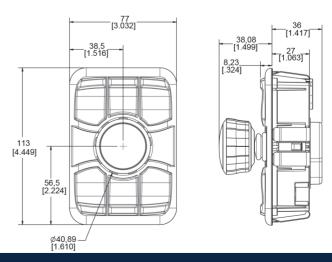
Rugged Proportion Control Joystick Controller

Small, robust and extremely versatile, the new IRIS596 joystick controller with proportional speed functionallity is perfectly suited for both leisure and commercial applications.

The tactile joystick features proportion speed control and a build in push-axis, increasing the units control potential.

6 tri-state buttons with LED feedback allow selectional of up to 18 features / values making it an extremely versatile device, used to select thermal colour palettes, user presets and home positions and much more.

The IRIS596 features integrated spring fasteners which can be adjusted and tightened making it very simple to install. In addition, the 596 is waterprof so it can be installed both internally and externally.









IRIS604 / IRIS1604

Analogue / HD Quad Video Switcher with Remote Panel Mount Waterproof Keypad



Key Features:

- Display 4 Camera Inputs & Quad View on Your MFD
- Analogue (CVBS) & HD-TVI with HDMI Ouput Models
- Analogue Model (IRIS608) features 2 x Composite Outputs
- Split Screen & PiP Displays
- Supplied with 1 x Compat Waterproof Keypad
- Keeps Messy Wiring Out of Site
- 2 x Keypad Ports (Additional Keypads Sold Separately)
- Robust Moisture Resistant Case
- Keypad IP66 & UV Stabilised
- Keypad measures 7cm x 7cm

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

If you want to display multiple images at once on your screen then you're going to need a Quad Switcher. With 4 camera inputs, 2 outputs and now supporting multiple split screen and picture in picture options, the IRISx604 is essential for on board situational awareness and especially for keeping an eye on all angles of your vessel at once whilst docking

The IRIS604 Quad Switcher gets stowed away, well out of view, and is controlled using the IRIS540 keypad (supplied), which is waterproof, UV stabilised and only measures 74mm². Multiple keypads can be added during installation to increase control options.

The IRIS604 supports standard analogue video (CVBS) compatible with all chart plotters with composite video inputs and can also be supplied in HD format to support HD-TVI camera inputs with a single HDMI Hi-Def digital output (IRIS1604 Model)*

Our new switcher keypads are now shipped with a built in RJ45 socket, which means installers no longer have to spend time extending cables. Simply run your own CAT5/CAT6 cable as required**.

The IRIS604 can display individual camera inputs, all 4 cameras in a quad formation, split screen and picture-in-picture presets. Images can even be frozen on screen for detailed analysis.

Predominantly designed as a component of a multicamera docking system, the feature rich IRISx604 can also be used as a vital component of any on board security system.

*Interfaces directly with HDMI inputs. For other digital inputs such as DVI / HD-SDI adapters are available. Contact Iris for further details.

**Use shielded CAT5 when extending cables.









IRIS608 / IRIS1608

8ch Analogue Switcher / 8ch HD-TVI Video Switcher with Panel Mount Keypad



Key Features:

- Display 8 Camera Inputs on Your Chart Plotter
- Analogue (CVBS) & HD-TVI with HDMI Ouput Models
- Analogue Model (IRIS608) features 2 x Composite Outputs
- HD-TVI Model Features 1 x HDMI Output
- Supplied with 1 x Compat Waterproof Keypad
- Keeps Messy Wiring Out of Site
- 2 x Keypad Ports (Additional Keypads Sold Separately)
- Robust Moisture Resistant Case
- Keypad IP66 & UV Stabilised
- Keypad measures 74mm x 74mm

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 IRIS1608 is the worlds first dedicated marine Hi-Def video switcher and features eight camera inputs which can be switched to the HDMI output to display realtime video from your high definition Iris cameras on a suitable chart plotter or HD TV.

Compatible with all chart plotters that feature a digital input*, TV's with HDMI inputs and other HDMI enabled media, the IRIS1608 comprises a rugged control box and a low-profile, compact, waterproof keypad. The control box is installed safely out of sight so there are no unsightly cables whilst the keypad provide a simple, elegant control interface.

The 1608 is shipped with a keypad included and there is a second port on the control box so you can connect an additional pad should you need to switch video from multiple positions.

The IRIS608 is an analogue only model featuring 2 \times composite video outputs and is compatible with all MFD's supporting analogue video.

Our new switcher keypads are now shipped with a built in RJ45 socket, which means installers no longer have to spend time extending cables. Simply run your own CAT5/CAT6 cable as required**.

The keypad measures a mere 74mm² and is UV stabilised. Our switchers have been designed exclusively for the boating market and there's nothing else like them!

*Interfaces directly with HDMI inputs. For other digital inputs such as DVI / HD-SDI adapters are available. Contact Iris for further details.

**Use shielded CAT5 when extending cables.





