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+™ 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.

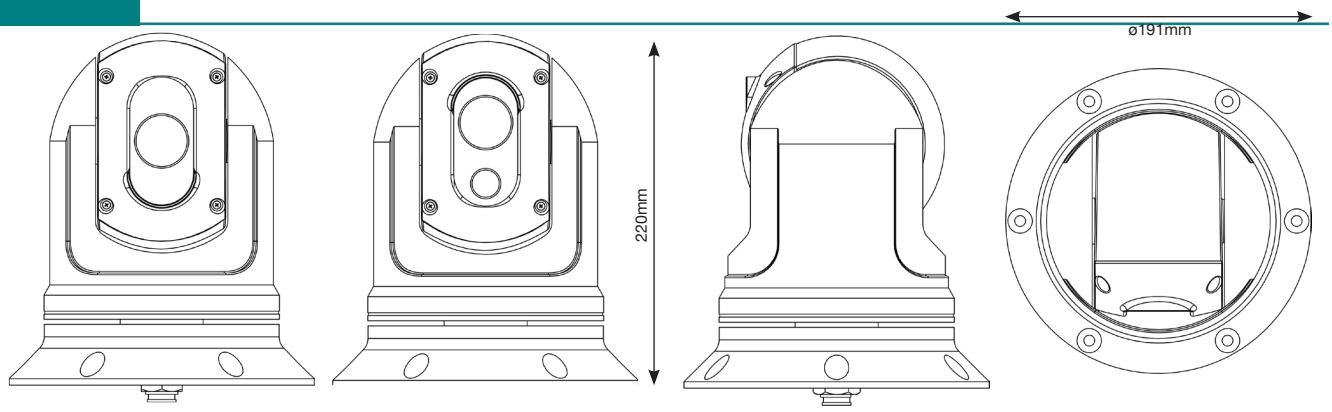
Thermal imaging models feature multiple colour palettes, ICE™ & ICE+™ Image Contast Enhancement, 17µ sensor and a thermal sensitivity of less than 50mK.

Iris Innovations Ltd. Units 15 & 43 Fareham Innovation Centre, Metoer Way, Lee on Solent, Hampshire PO13 9FU. United Kingdom
Tel: +44(0)2392 556509. email: irisuk@boat-cameras.com. web: **www.boat-cameras.com**

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 Microbolometer, 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 Microbolometer, 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

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:

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 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	3KG
Operating Temperature	-50˚C ~ +65˚C / Humidity: 10% ~ 95% RH
Environmental	IP67 / TVS 4000V Overvoltage / Lightning Protection

Iris Innovations Ltd. Units 15 & 43 Fareham Innovation Centre, Metoer Way, Lee on Solent, Hampshire PO13 9FU. United Kingdom
Tel: +44(0)2392 556509. email: irisuk@boat-cameras.com. web: **www.boat-cameras.com**

Sentinel-C

Colour-Thermal Dual Payload Professional Day/Night Vision Gyro 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.

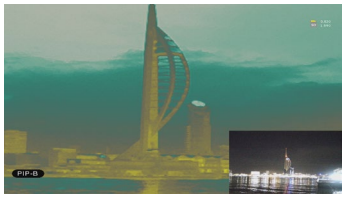
With their extremely sensitive visible modules and thermal cores, and thermal overlay and Edge+ overlay modes, Sentinel C cameras, available in 640x512 and 384x288 resolution deliver 4-in-1 functionality offering extreme value for money whilst delivering superior awareness to boaters, fishermen, crew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

Iris Innovations Ltd. Units 15 & 43 Fareham Innovation Centre, Metoer Way, Lee on Solent, Hampshire PO13 9FU. United Kingdom
Tel: +44(0)2392 556509. email: irisuk@boat-cameras.com. web: **www.boat-cameras.com**

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

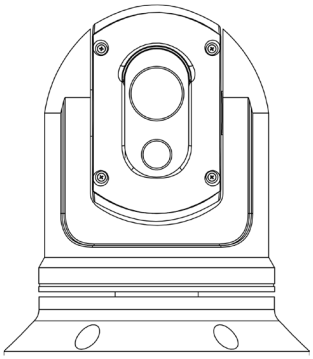
Fusion Mode B - Low Light Picture Background with Thermal Image Hotspots Overlaid

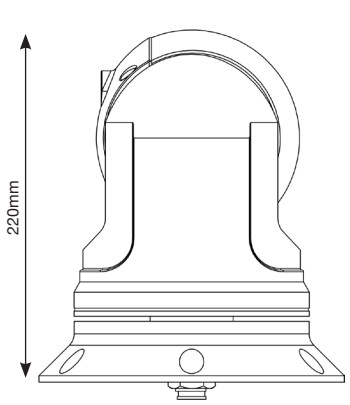
Fusion Mode A - ICE+ Edge Enhancement From Daylight Camera overlaid onto thermal image)

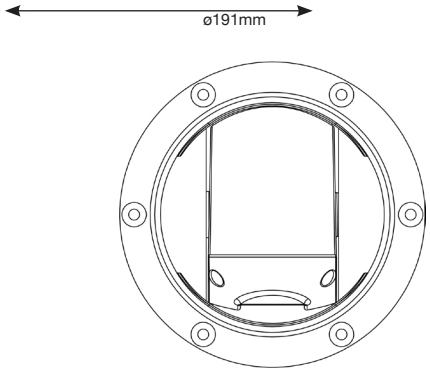
Fusion Mode A - Various Palette Examples

Fusion Mode A - Various Palette Examples

Fusion Mode A - Various Palette Examples







Specifications:

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
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

Colour Palettes	12 Colour Palettes (Thermal Core)
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
Thermal Sensitivity / Range	<50mK / 8~14µ
Thermal Pixel Pitch	17µm
Visible Camera Illumination	0.05 Lux
Housing Material / Colour	Aluminium Body, Anodised & Powder Coated. White/Black Standard - Bespoke Colours Available - POA
Gyro Stabilisation	Tilt Axis

Iris Innovations Ltd. Units 15 & 43 Fareham Innovation Centre, Metoer Way, Lee on Solent, Hampshire PO13 9FU. United Kingdom
Tel: +44(0)2392 556509. email: irisuk@boat-cameras.com. web: **www.boat-cameras.com**