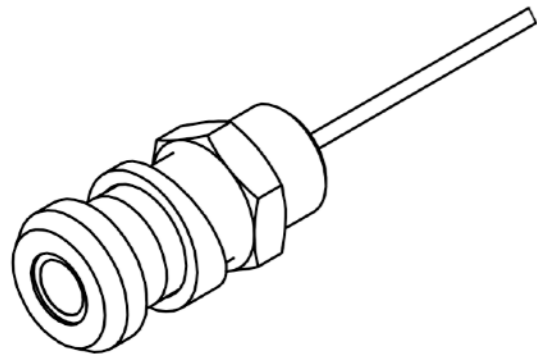# IRIS735
Miniature Thru-Panel Camera

QUICK START GUIDE

Thank you for choosing the IRIS735 miniature through panel camera.

This document is designed to provide a brief overview of the product, it's features and installation instructions. Full instructions, regulatory and safety information can be downloaded from our website: www.boat-cameras.com

Rugged & Compact
With its ultra-compact form factor, marine grade stainless steel case and an environmental rating of IP67 the IRIS735 is perfect for monitoring in situations where ordinary cameras simply won't do. Whether you need an extra pair of eyes when mooring your boat or need a rugged wide angle camera for reversing large vehicles, the IRIS735 is perfect for the job.

Multi-Format
The IRIS735 features a state of the art multi-format processor chipset that can output video in multiple formats to suit your application. Switch from AHD, HD-TVI, HD-CVI or CVBS (Composite Video). The camera also supports PAL or NTSC video systems for international compatibility.
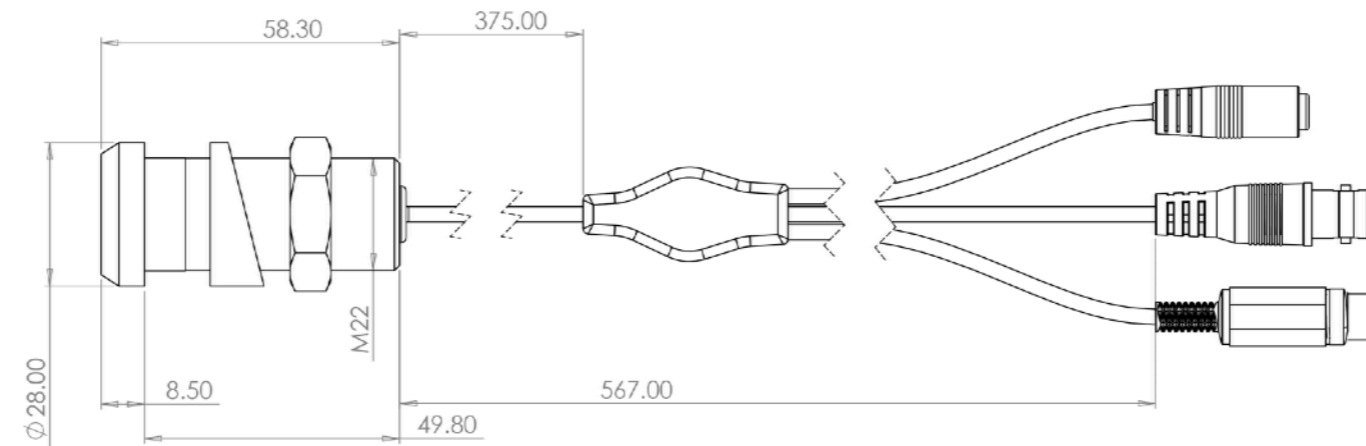
Fully Configurable
The IRIS735 is supplied with a detachable mini-joystick which is used to access and navigate the cameras on screen menu system. From here you have full access to configure the cameras video output format, image mirror and flip settings, colour, brightness and contrast settings and more.

Easy Installation
Installing the camera is extremely simple. Once inserted simply fix in position with the lock nut provided. The camera is supplied with an additional mounting ring for angled mounting.

IRIS735
Dimension Drawing

Installation
Please take care to ensure there are no electrical cables, conduits, pipes and obstacles behind the mounting surface before you drill any holes.

The camera body is threaded, and locked into position with the provided locking nut. Prior to drilling, ensure there is sufficient access behind the panel to accommodate the length of the camera body and to be able to fit and tighten the lock nut.

It is also recommended that you power up the camera and connect the video output to your screen temporarily so you can site the camera in a position that will provide the desired view, prior to drilling any holes.

Do not mount the camera in a position where it causes an obstruction.

Once an appropriate position has been determined, drill a pilot hole into your surface using a drill bit suitable for the surface material.

With the pilot hole drilled, use a 22mm drill bit to open up the hole to allow the body of the camera to pass through the panel.

If the camera needs to be mounted at an angle, use the angle mount adapters provided as shown opposite.
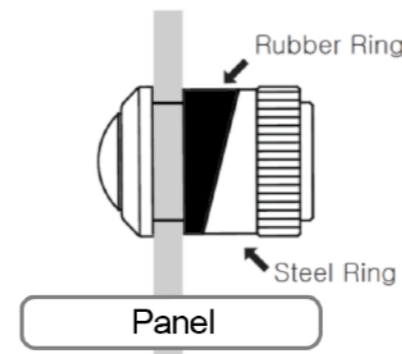
Rubber sealing washers are also provided to prevent moisture ingress into the panel. It is recommended that a washer is used either side of the panel.

Pass the camera through the panel. The top of the image is market by a white arrow label on the body of the camera. Ensure the camera orientation is as required. Double check by connecting the camera to your monitor.
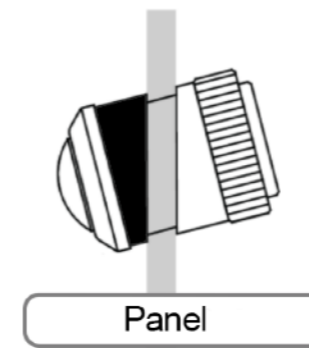
The diagrams opposite show how to fit the camera with and without the angle adapters.
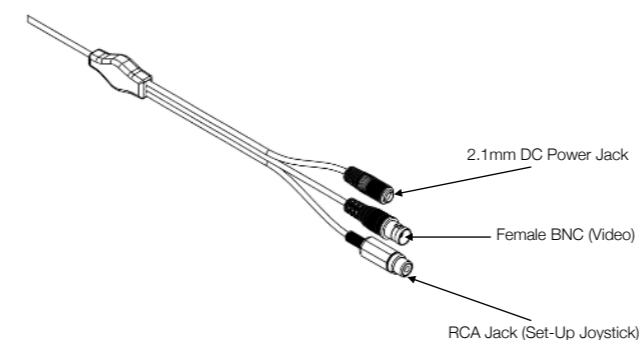
Installation
Flush Mounting

Angle Mounting

Connections

Connections
The cable tail from the IRIS735 splits into three separate connectors:

1) Power Connector: 2.1mm DC Socket
2) Video Connector: Female BNC plug
3) Set Up Joystick: Female RCA Socket

Power
The camera is supplied with a field installable 2.1mm DC plug to facilitate connection of the power wires. The plug features screw terminals market with polarity indicators. Ensure the correct polarity is observed when connecting power.

The camera operates at 12VDC ±10% / 1.5W Max

Ensure connections are made before switching on power, and never plug the camera in with power switched on.

Never remove the DC ground with the camera powered up. This will cause the camera to ground through the common video ground and damage the camera.

Ensure suitable circuit protection is in place with connecting to a direct power source, such as a vehicle or vessel battery or distribution panel.

Video
Connect the video signal from your camera using a 75Ω male BNC plug. Use a coax cable with 75Ω impedance such as RG59, RG6, URM70 etc.

The cameras video output format can be switched between CVBS (composite video) AHD, HD-TVI and HD-CVI. As default, the camera is set to CVBS in PAL format. The camera also supports NTSC format. Video format can be changed in the cameras set up menu.

Set-Up Joystick
To access the cameras On Screen Menu configuration feature, plug in the mini joystick that I supplied with the camera.. This connects to the white RCA socket on the camera tail.

Once connected, press in the joystick and the on screen menu (OSD) will appear over the video image.

You can now navigate the cameras set up and configuration menus to select the desired feature and change value.

Use the up, down, left, right controls to navigate and adjust values and press down to confirm selections.

When you have finished setting up your camera the mini-joystick can simply be dis-connected and removed. We recommend that a suitable sealing tape is used to cover up the RCA connector when not in use.

Details of the OSD tree are listed overleaf.

On Screen Display (OSD) Menus

To configure your camera, press the mini-joystick downwards in the centre position until the on screen menu appears on the screen.

Main Menu:

(Default values in brackets)

1) LENS
   DC
   MANUAL
2) EXPOSURE
   SHUTTER (AUTO)
   AGC
   SENSE-UP (OFF)
   BRIGHTNESS
   D-WDR
   DEFOG
3) BACKLIGHT
   OFF
   BLC
   HSBLC
4) WHITE BALANCE
   ATW
   AWC>SET
   INDOOR
   OUTDOOR
   MANUAL
   AWB
5) DAY & NIGHT
   AUTO
   COLOUR
   B/W
   EXT
6) NOISE REDUCTION
   2DNR
   3DNR
7) SPECIAL
   (Column 2)
8) ADJUST
   (Column 2)

Full details of each of the features in the on-screen menu system are listed in the full product guide which can be downloaded from our website.

SPECIAL Menu:

1) CAM TITLE
   ON
   OFF
2) D-EFFECT
   FREEZE
   MIRROR
   NEG.IMAGE
3) MOTION
   SELECT
   DISPLAY
   SENSITIMTY
   COLOUR
   TRANS
   ALARM
4) PRIVACY
   OFF
   ON
5) LANGUAGE
   ENG, CHN1, CHN2, GER, FRA, ITA, SPA,POL
   RUS, POR, NED, TUR, KOR, JPN
6) DEFECT
   LIVE DPC
   WHITE DPC
   BLACK DPC
7) RS-485
   CAM ID (0~255)
   ID DISPLAY (ON/OFF)
   BAUDRATE (2400, 4800, 9600, 19200, 38400)

ADJUST Menu:

1) SHARPNESS
   AUTO
   OFF
2) MONITOR
   LCD
   CRT
3) LSC
   OFF
   ON
4) VIDEO OUT
   NTSC
   PAL
5) MONITOR OUT
   CVBS
   AHD
   HD-TVI
   HD-CVI
6) IR LED
   ON
   OFF

   EXIT
   SAVE & END
   RESET
   NOT SAVE

ESSENTIAL SAFETY NOTICES:

Product Disposal and Recycling:

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

EMC Guidelines:

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

Water Ingress:

Disclaimer This product has been tested and complies with the requirements of the standard EN60529 to level IPx7, however, water intrusion and subsequent equipment failure may occur is subject to commercial high pressure washing or sustained exposure to water spray. This product is not designed to be completely submerged and the cable exit point should be kept dry and protected from possible moisture ingress. Any damage caused as a result of these circumstances are not covered by the product warranty.

Full product safety, warning and compliance information, including Declaration of conformity is available from www.boat-cameras.com

SELECTED SPECIFICATIONS:

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

Image Sensor	1/2.8" Sony STARVIS CMOS image sensor
Resolution	1080P
Scanning System	Progressive
Video Output	AHD,TVI,CVI: 1080P, 720P Analog: NTSC/ PAL CVBS
S/N Ratio	More than 50dB (AGC off)
Min. Illumination	0.001 lux (F1.0)
D-WDR	Off/0-8
SENS-UP	Off/X2 - X30
Backlight	Off/BLC/HSBLC
DNR	Off/Low/Middle/High
Privacy Mask	4 Masks
Motion Detection	Off/On
Power Source	DC12V ±10%
Power Consumption	Max 1.5 Watt
Operating Temperature	-10℃ to 50℃
Operating Humidity	10% to 85%
Lens	2.9mm lens
Dimension/mm	28mm(D) X 59mm(L)
Weight/g	Approx. 162

Iris Innovations reserves the right to change specifications from time to time without prior notice. E&OE omitted.

Manufactured & Assembled in South Korea

5 060777 480035