



Operations Manual

NSHDUxIPx Underwater IP camera HD

ARGOS-4

Version: 1.0 - Date: 01-06-2022

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1 Abbreviations / Terminology

2 Introduction

The ARGOS 4 is a 3 megapixel IP camera that is capable of high-resolution video. It has a 2.7-13.5 mm lens zoom wide-angle lens with a max. 80 ° opening angle underwater, which is ideal to come close to objects in low visibility water.

The camera is built of acetal plastic or stainless steel AISI 316 with a Lexan front glass. Optionally this glass can be made from Sapphire glass. The video signal output is a standard IP video signal. This IP signal can also be used to access the camera setting and controls.

The camera is ONVIF compatible.

The supplied flange makes it easy to install the camera in a bulkhead. The flange is sealed on the camera housing with an O-ring. The camera can be provided with different connectors. See the specifications table for the different configurations.

Key features

- Megapixel
- POE powered
- IP camera, Onvif compliant
- Operating depth: 500 m
- Acetal housing or Stainless steel 316

The following models are available:

- NSHDUACNIP4A - Acetal housing with cable penetrator
- NSHDUSSNIP4A - Stainless Steel housing with cable penetrator
- NSHDUACNIP7A - Acetal housing with MCBH8MSS connector
- NSHDUSSNIP7A - Stainless Steel housing with MCBH8MSS connector

2.1 Penetrator Versions (4A)

The Penetrator version can be supplied with two type of CAT cable potted on the penetrator in a required length up to 100 meters. The following type of cable can be potted:

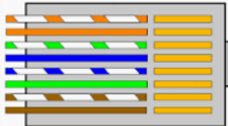

Model	Type	Image
DLR-CAT5-F/UTP	DLR-CAT5E CAT5E Ethernet Cable, 8 Cores Reinforced PUR cable, diameter ø 10.2 mm	
65010032	S/FTP Cat 7 Flex 4x2xAWG26/7 PUR, Diameter ø 6.4 mm	

3 Specifications

	NSHDUACNIP11	NSHDUACNIP7A	NSHDUACNIP4A
Image sensor	3MP - 1/2.8" progressive Sony Starlight CMOS sensor.		
Video Output	H.265+/H.265/H.264 M-JPEG		
Resolutions	Main Streaming: 2048x1536,1920x1080,1280x720 Sub streaming: 640x360, 352x240, 320x240		
Frame rate	1 -25/30fps; Frame rate Adjustable		
Compression	0.1M–12M bits/sec (CBR/VBR/LBR); H.264 HP/MP/BL, M-JPEG.		
Lens	Motorized Variofocus Lens, f=2.7-13.5mm/ F1.2, Auto & Manual focus		
Underwater Fields of View (FOV)	FOV = 110° underwater FOV=80°		
Control	With built in web browser interface: Brightness, Contrast, Saturation, Sharpness, Exposure, Motion detection, Mirror, Shutter, Privacy mask, Flicker less, Noise reduction, IRIS, AES, AWB, AGC, BLC, WDR, ROI, Audio gain, Alarm in/out. Video recording by scheduling Network failed, Interval Snapshot schedule recording on Micro SD card (optional)		
Min illumination	0.1 Lux /F1.2 (color) 0.01 Lux/F1.2 (B&W)		
Protocol	HTTP, HTTPS, TCP/ IP, IPv4, IPv6, PPPoE, UDP, SMTP, FTP, QoS, DHCP, DDNS, NTP, DNS, SNMP, RTSP, RTP/RTCP, Bonjour, CSMA/CA, UPnP, IGMP, 802.1X		
Onvif compatible	ONVIF 2.4		
Power Supply	POE 44-54 vdc, 3 watt (Optional 12-72 vdc)		
Video Signal Transmission	Ethernet LAN with POE		
Dimensions	175 x Ø120 mm (excl. Connector)		
Material Housing	Acetal or S/S 316		
Material Frontglass	Polycarbonate (Lexan)		
Weight	Acetal: 850gr (In air), 180gr (In water)		
Operating Depth	500 m (Acetal), 1000 m (Stainless steel)		
Connector	BRA06MBA	MCBH8MSS	Penetrator

4 Connections

4.1 Wire connection

Connection	Configuration						
Penetrator with CAT cable (4A)	Pin	Connector RJ45	Cable wire	Pin	Connector RJ45	Cable wire	POE is possible on the DATA line as well as on PIN4,5 &7,8
	1	Rx+ (LAN1)(POE+)	Orange/White	4	+Vdc	Blue	
	2	Rx- (LAN2)(POE+)	Orange	5	+Vdc	Blue/White	
	3	Tx+ (LAN3)(POE-)	Green /White	7	-Vdc	Brown/white	
	6	Tx- (LAN6)(POE-)	Green	8	-Vdc	Brown	
							
MCBH8MSS connector (7A) Mating connector: MCIL8F* or MCIL8F-ETH	Pin	MCBH8MSS	Cable wire	Pin	MCBH8MSS	Cable wire	POE is possible on the DATA line and on Pin 5 and Pin 8 with a voltage range of 12 to 72 Vdc
	1	Rx+ (LAN1)(POE+)	Orange/White	4	nc	Blue	
	2	Rx- (LAN2)(POE+)	Orange	5	+Vdc 12-72V	Blue/White	
	3	Tx+ (LAN3)(POE-)	Green /White	7	nc	Brown/white	
	6	Tx- (LAN6)(POE-)	Green	8	-Vdc 12-72V	Brown	
	 <p style="text-align: center;">Face view male</p>						

*Note: When using the MCIL8F on a CAT cable, use the inline rubber cable of the connector as short as possible when connecting to the CAT cable. In general we cut the inline cable back to a remaining 15 cm for potting on to the CAT cable.

4.2 Interface connection

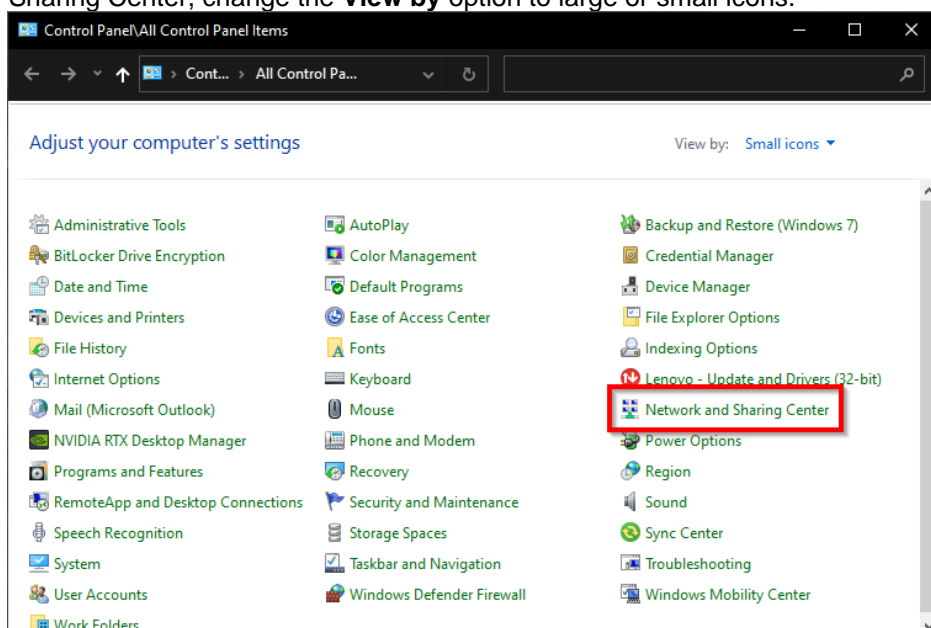
Connect the camera LAN through a POE injector to your PC. The camera can be powered with POE on the Data lines and/or with POE on the pin4,5 and pin7,8 for the 4A version, and/or with 12 to 72 Vdc on pin5 and pin8 for the 7A version.

4.2.1 Windows Network setup

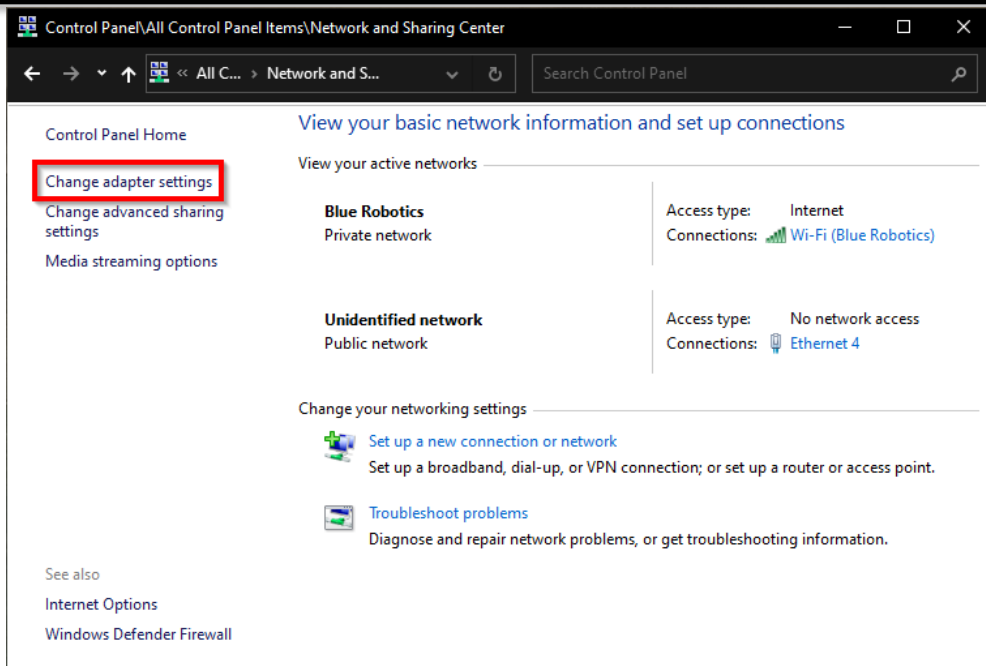
You will need to set the PC in the same IP range as the camera by setting the IPv4 to a fixed IP address 192.168.1.1

4.2.2 Windows Network Setup

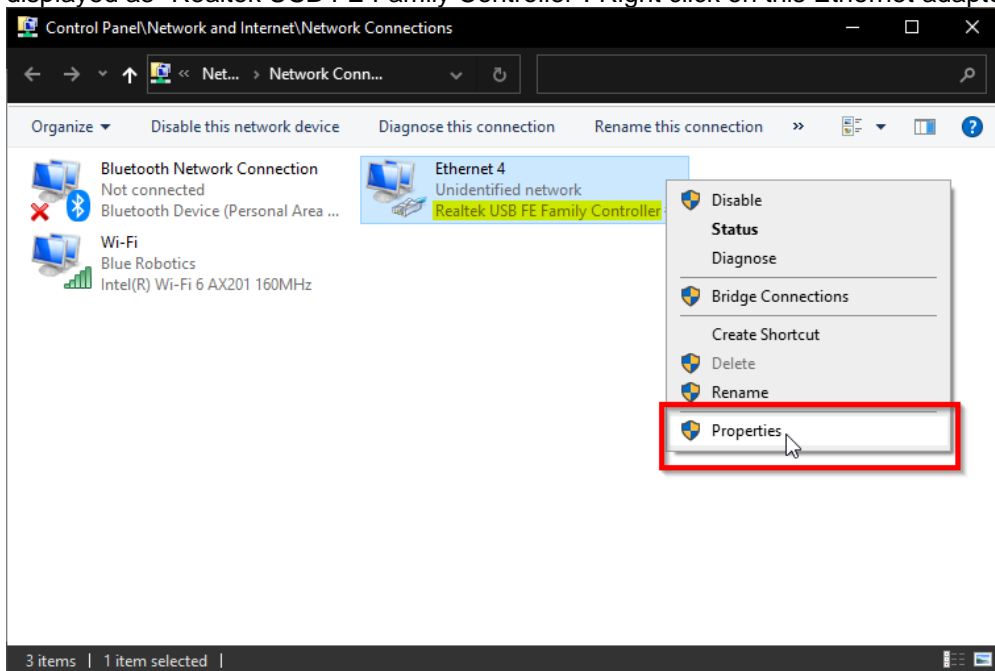
1. Go to the Windows **Control Panel** then select **Network and Sharing Center**. If you do not see Network and Sharing Center, change the **View by** option to large or small icons.



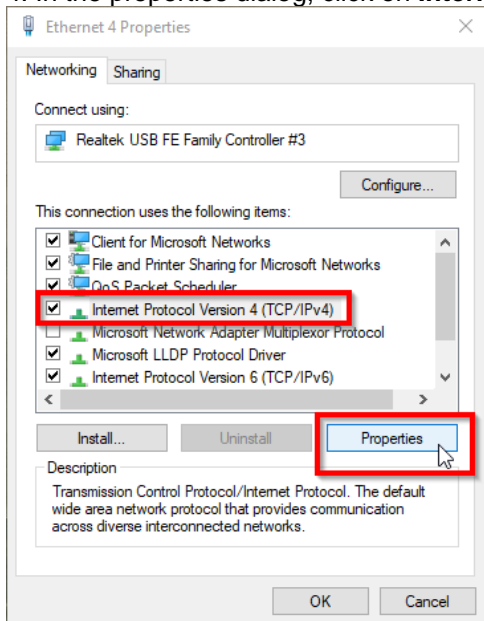
2. In the Network and Sharing Center window, select **Change adapter settings**.



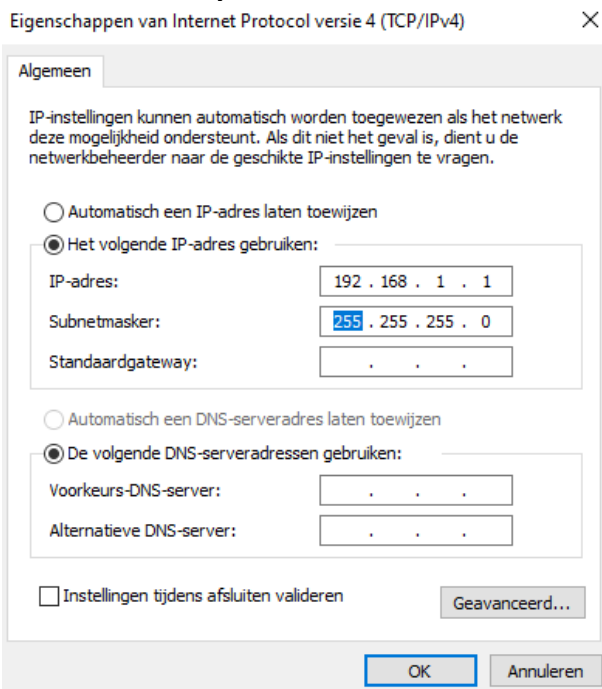
3. The FXTI acts as a USB Ethernet adapter and will show up as an Ethernet device in this menu. It should be displayed as "Realtek USB FE Family Controller". Right click on this Ethernet adapter then choose **Properties**.



4. In the properties dialog, click on **Internet Protocol Version 4 (TCP/IPv4)** to highlight it, then click **Properties**.



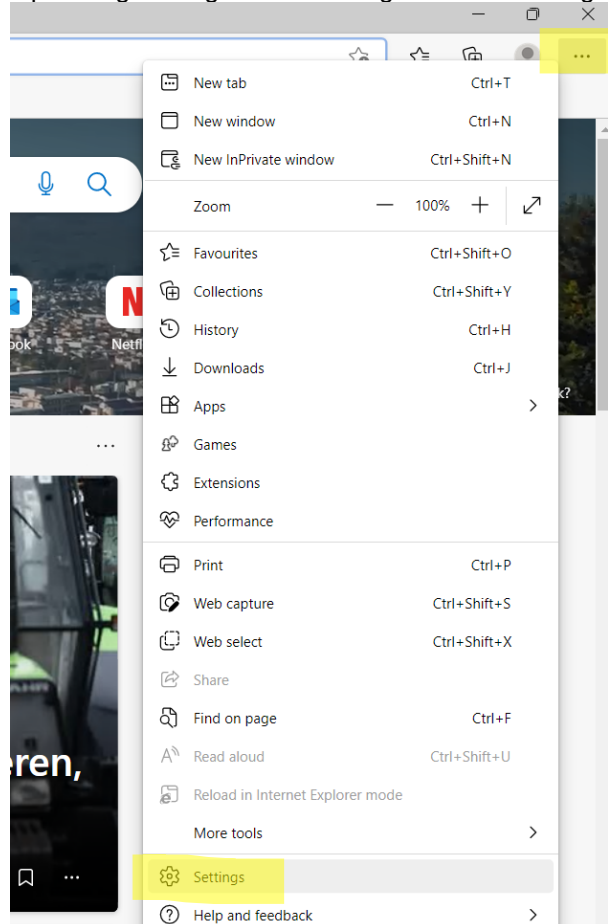
5. Select "Use the following IP address" And enter **192.168.1.1** for the IP address and **255.255.255.0** for the Subnet mask. Select **OK**, you can then close out the rest of the windows.



4.2.3 Web browser settings

The camera can be accessed through the web browsers Internet Explorer or Edge. Internet Explorer does not work anymore on most windows system. When using Edge you need to set Edge in IE modes. Please follow below procedure.

Open Edge and go to the settings: ●●● → Settings



Go to Default Browser and Allow IE modes

Settings

- Profiles
- Privacy, search, and services
- Appearance
- Start, home, and new tabs
- Share, copy and paste
- Cookies and site permissions
- Default browser**
- Downloads
- Family safety
- Languages
- Printers
- System and performance
- Reset settings

Default browser

Make Microsoft Edge your default browser Make default

Internet Explorer compatibility

Let Internet Explorer open sites in Microsoft Edge ? Incompatible sites only (Recommended) ▾

When browsing in Internet Explorer you can choose to automatically open sites in Microsoft Edge

Allow sites to be reloaded in Internet Explorer mode (IE mode) ? Allow ▾

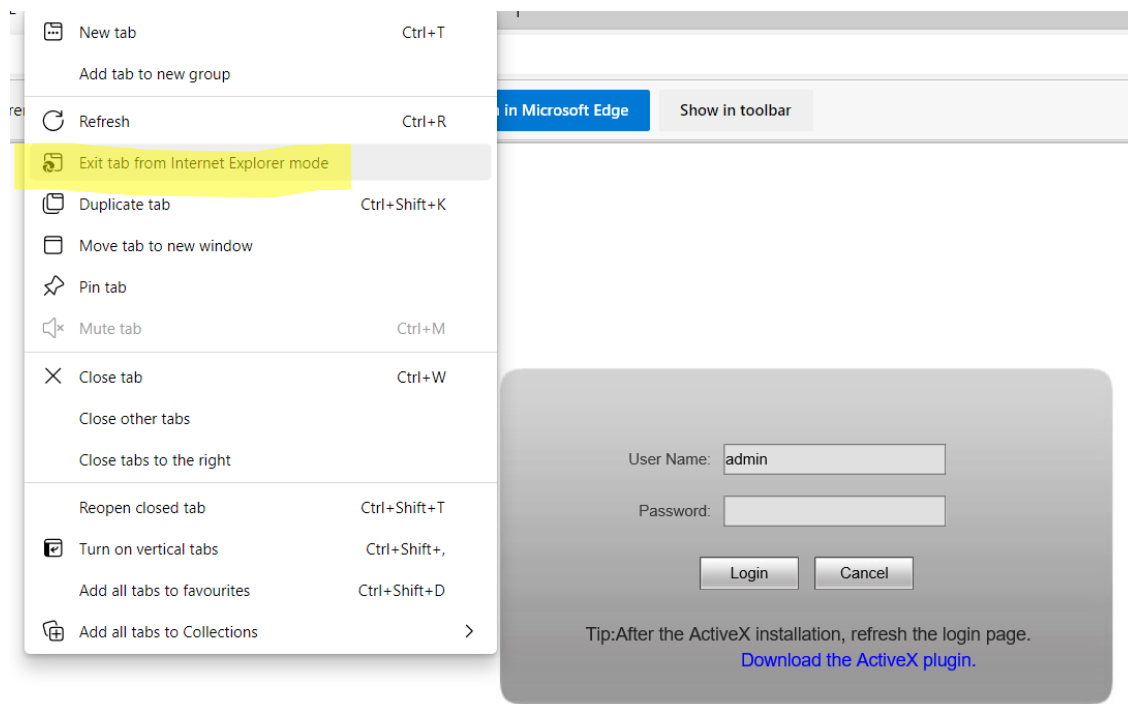
When browsing in Microsoft Edge, if a site requires Internet Explorer for compatibility, you can choose to reload it in Internet Explorer mode

- Default
- Allow**
- Don't allow

Internet Explorer mode pages

These pages will open in Internet Explorer mode for 30 days from the date you add the page. No pages have been added to the Internet Explorer mode list yet.

Open a new tab and type the IP address 192.168.1.88 in the title bar, then right click on the tab and select Use in Internet Explorer mode



Enter the User name: admin and Password: admin and Login into the camera interface.

5 Optional & Accessories

Bracket:
Model: SSBHDUANIP
Clamping diameter \varnothing 65 mm
Size welding flange: 140x40x10 mm (LXWXH)
Stainless steel



6 Help & Support

Further details about a Warranty Statement can be found at the chapter 7 Warranty

For technical support contact your local a Novasub Authorized Service Center or Seascope Subsea BV. Seascope Subsea BV is the manufacturer of all Novasub branded products.

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If you have cause to use our technical support service, please make ensure that you have the following details at hand prior to calling:

- system serial number
- firmware version and build number
- fault description
- any remedial action implemented

7 Warranty

Novasub warrants that during the Warranty Period Novasub or a Novasub Authorized Service Center (hereinafter Service Center) will, at its sole discretion, remedy defects in materials or workmanship free of charge either by a) repairing, or b) replacing, or c) refunding, subject to the terms and conditions of this Limited Warranty. This Limited Warranty is only valid and enforceable in the country of purchase.

7.1 Warranty Period

The Limited Warranty Period starts at the date of original retail purchase. The Warranty Period is two (2) years for the product. Warranty applies only on manufacturing defaults. The Warranty Period is one (1) year for accessories, including mounting hardware and connector cables.

7.2 Exclusions and Limitations

This Limited Warranty does not cover:

1. a) normal wear and tear;
b) defects caused by rough handling or;
c) defects or damage caused by misuse contrary to intended or recommended use;
2. user manuals or any third-party items;
3. defects or alleged defects caused by the use with any product, accessory, software and/or service not manufactured or supplied by Novasub;
4. battery.

7.3 This Limited Warranty is not enforceable if item:

1. has been opened beyond intended use;
2. has been repaired using unauthorized spare parts; modified or repaired by unauthorized Service Center;
3. serial number has been removed, altered or made illegible in any way, as determined at the sole discretion of Novasub;
4. has been exposed to chemicals. Novasub does not warrant that the operation of the product will be uninterrupted or error free, or that the product will work with any hardware or software provided by a third party.

7.4 Limitation of Liability

To the maximum extent permitted by applicable mandatory laws, this Limited Warranty is your sole and exclusive remedy and is in lieu of all other warranties, expressed or implied. Novasub shall not be liable for special, incidental, punitive or consequential damages, including but not limited to loss of anticipated benefits, loss of data, loss of use, cost of capital, cost of any substitute equipment or facilities, claims of third parties, damage to property resulting from the purchase or use of the item or arising from breach of the warranty, breach of contract, negligence, strict tort, or any legal or equitable theory, even if Novasub knew of the likelihood of such damages. Novasub shall not be liable for delay in rendering warranty service.