



# IP product catalogue





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The manufacturer reserves the right for eventual typing/printing errors and to make changes in the specifications of the products without prior notice.



# NOVUS IP DEVICES

CAMERAS NMS WORKSTATIONS







# Professional software for IP video monitoring





1600 fps **HD** 

## Performance

NMS software allows you to create recording and monitoring systems, built with an unlimited number of IP cameras. System size is limited only by hardware performance, ex. computer platforms and network elements. NMS effectively uses resources of the server on which it is installed. You need only one NMS server to create stable system supports up to 64 cameras with HD 720p resolution. Using the appropriate server and adequate number of HDDs, it is possible to record in total 1600 fps in HD 720p resolution. For comparison standard DVRs, applied in the systems with analog cameras, enable recording up to 32 channels with 800 fps at CIF resolution, so nearly four times lower than HD 720p.







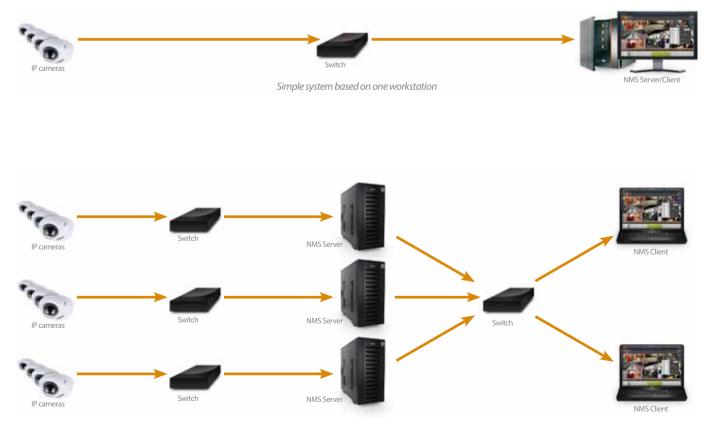
## Costs

NMS software is distributed for free with NOVUS<sup>®</sup> IP cameras. The license to use the program is free of charge regardless of the system size, the number of devices, the size of recordings database, etc.

Buying NOVUS® IP camera, you get in set a fully functional program to create an IP surveillance system. It is important that the system can be expanded with new elements and it does not require any additional fees. The only limitation is capability of the hardware on which NMS software is installed.

# **Flexible application**

Installing NMS software you decide how it will be used in the future. This could be a classic application, where streams from cameras are simultaneously recorded and observed by the operator in one location, on one workstation – then it is recommended to install NMS Server/Client version. It could be also an application designed exclusively for recording – NMS Server or for monitoring only - NMS Client. Than a minimum two workstations are required: at least one server and at least one NMS client. Depending on an intended use of the workstation, optimized version of the program is installed. Client station can be a classic home computer or laptop. The diversity of applications makes NMS program suitable for small systems with four cameras, as well as for expanded systems with several registering servers and hundreds of cameras.



Complex system based on specialized workstations - NMS Server and NMS Client





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NMS ip tool for searching cameras in the network



NMS basic setup wizard

#### **Easy installation**

Contrary to popular opinion, the IP system can be easily installed. NMS provides a set of tools for installers, which help quickly and easily configure IP monitoring system. System configuration is reduced to two steps. The first step is to configure cameras. NMS ip tool searches all NOVUS® IP cameras working within the network, then in a very simple way, user can give them collectively a unique network addresses.

The second step is to configure NMS using the basic setup wizard. Wizard in a user-friendly way allows you to add cameras to the list of devices and assign them an adequate space for recordings. It is also possible easy configuration of server-client systems.

After these two steps, the monitoring system starts to work – records and displays an images from cameras. Of course, apart from the basic setup wizard, it is also available advanced configuration menu, which enables more detailed settings.

## Working with NMS software

NMS user interface is built from modules-panels, which can be composed in any workspace, optimised to a

particular system requirements and an operator's needs. You are not restricted by the program, but you can adjust the interface to individual preferences. It is even possible to choose such details as content and form of the information displays on the background image (OSD).

It is also important, that the composition of the working space (the number and arrangement of panels) is assigned to each operator. The following examples show, how different the program view might look, depending on users needs.



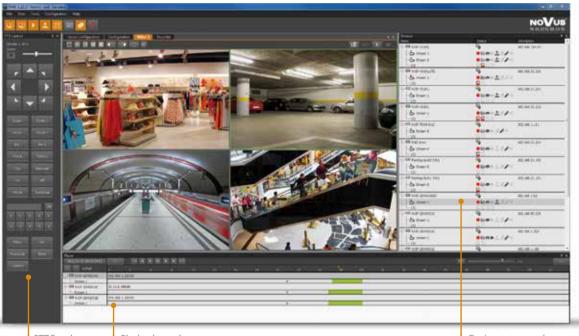




# Composing working area, the user can choose:



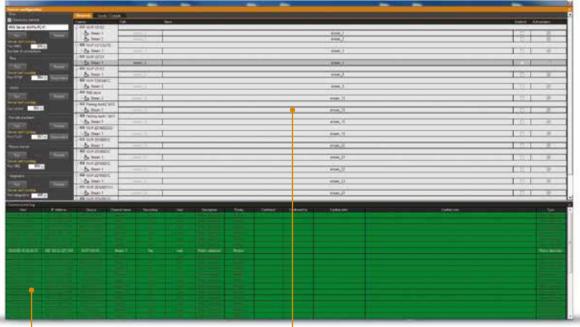
2 video panels with independent split screens



PTZ Panel

Playback panel

bevice status panel

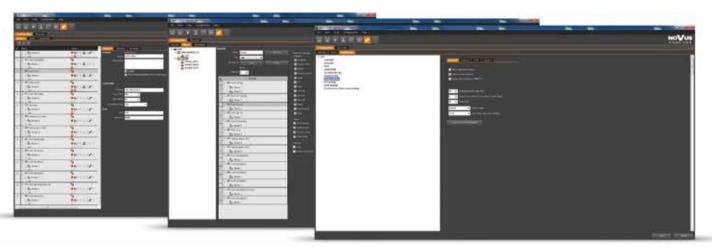


Event notification panel

• Streams management panel in server-client mode







Device management panel, Recording panel, User management panel, Application panel



Interactive map panel

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• Disc space management panel



System log panel

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Configuration panel for automatic scenarios of system reactions on current events



When it is necessary to use many functions at the same time, multi-screen operation is very useful (simultaneous display of application on multiple monitors).









5Mpx image calibrated to the monitor size

High quality and high resolution stream

#### **Megapixel streams support**

One of the major advantages of IP surveillance systems is the possibility of recording images in high resolution (1Mpx, 2Mpx, ...). NMS software enables receiving, recording, playing back and sending streams in resolution from CIF to 5 Mpx to the client stations. Cameras with different resolutions can be freely mixed in a single installation. This allows you to buy more expensive megapixel cameras only for applications, where they are really needed.

To take full advantage of megapixel cameras and get out relevant details of the image, you can use the digital zoom function.



5Mpx image enlarged locally using digital zoom







Panel for defining schedule and recording modes for each camera

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Panel for allocating disc space for each camera

#### Multistreaming cameras support

NMS software enables an efficient use of multistreaming cameras. The application allows to manage each camera's stream separately. It is possible to create ex. a server-client system, where high quality and high resolution streams are recorded locally, and streams with lower parameters are sent to the distant client stations via the Internet.

#### Intelligent recording

NMS offers developed recording configuration module of streams received from IP cameras. It is important that images from each camera can be recorded with individual settings. Recording can be continuous or activated only after motion detection. It is possible to record "full" stream or just base frames, ex. from less important cameras. The recording mode is configured in advanced

## schedule settins.

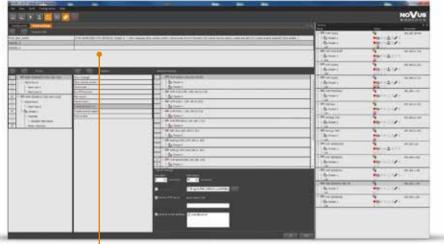
With an independent allocation of a disc space for each camera, NMS user can also adjust the recording time from each camera. More disc space can be allocated to more important streams, and thus their archiving time is longer. The operator receives information about expected time of recording of each stream, based on the amount of allocated disc space and selected recording settings.





# Automatic event support

NMS allows you to create a list of scenarios of automatic reactions on events. It makes the operator's work easier or replace him completely in maintenance free video monitoring systems. NMS software informs the operator about current events in many different ways. It can activate also predefined interactions between system elements.

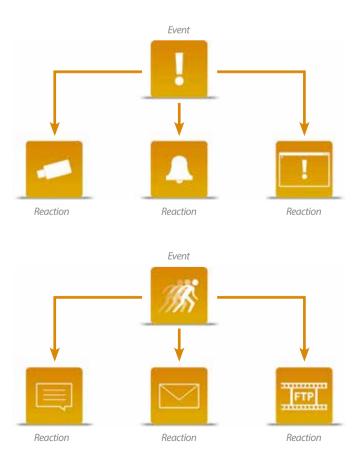


Panel for defining scenarios of system reactions on events

System administrator has at his disposal the following types of reactions that he can use while creating scenarios: send photo or video sequence to the specified e-mail or ftp server,

- control digital output of any device,
- activate panic recording,
- play audio message,
- activate any function on any PTZ camera,
- send an sms,
- · display images from any camera in the alarm window,
- display text message.

Examples of scenarios on events:



#### Example 1:

Doorphone is connected to the digital input. When it is pressed, the system automatically send an appropriate PTZ camera to a certain preset, to show visitor. Simultaneously an operator in a reception is alarmed by sound and in program's window is displayed only the image from the camera on the entrance.

## Example 2:

When motion is detected in a room with limited access, the system always notify a manager about this fact, by sending an sms and e-mail.







Playback panel

Mix mode – one camera is in playback mode

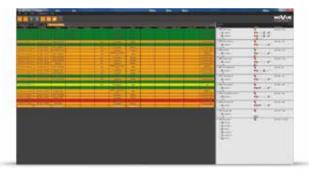
#### Playback

NMS software offers effective methods of searching and playing back recordings. Special panel allows you to browse a recordings database and control playback process. The most important element of this panel is a graph, illustrating recording modes by colours on the timeline. The graph is scalable and enables rapid movement within recordings from twenty-four hours, as well as for precise search of recordings exact to few seconds.

Features such as speeding up and slowing down, viewing replay frame by frame and reverse replay are available in playback mode. Another interesting feature is the possibility to combine in a single view images from any number of cameras in playback and live monitoring modes. This allows you to compare archival recordings with the current view from the same camera.

In addition to searching by the time, it is also available searching by specific events within the system log and playback of recordings connected to that events.

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Panel for current events come from an external devices and application itself

#### **Event** log

The essential role of the program operating as a monitoring system is to inform the operator about important events occur in the system. The key to effective cooperation between the operator and the program is to provide only important information and any needless. Too much information reduces the operator's vigilance and after some time he begins to ignore an important data. In contrast to other programs, NMS allows you to define very accurately which information is displayed on the screen and which is only registered, but does not appear life on the monitor. In the example below, a very important information has been displayed on an orange background, and the less important on the green one, as well they could not be displayed at all. The operator can add a note for each event, and thus confirm that he read an information.







Settings backup options

#### Settings backup

When many workstations is configured in one location it is highly probable that most of these settings are identical or very similar. To allow reuse of once created settings, NMS offers settings backup. Thanks to precise settings divided into a number of thematic modules, it is possible to use previously saved configurations and create desired combinations.

#### **User management**

Access to every element of NMS, as well as to particular cameras/streams can be precisely assigned to each user. This allows to carry out various scenarios, such as:

- give object security an access to a view from cameras placed on a gateway and at the same time denied access to cameras in the rooms (fig. 1)
- give reception desk an access to a life view from selected cameras without playback option (fig. 2)
- give manager an access to a view from all cameras without privilege to disconnect any camera or add new one (fig. 3)
- notify all operators, except admin, about motion detection etc. (fig. 4)



fig. 1



fig. 2







fig.4





# Integration with DSC intruder alarm system

NMS allows you to integrate video monitoring system with any DSC intruder alarm system. The program communicates with the control panel via RS port or Ethernet (converter required) and currently monitor status of each alarm system element. Status is visualized on a special panel or on a map panel (each alarm system element has a dedicated interactive icon). Alarm events are registered in a system log, and then it is possible to search recordings associated with alarm events. NMS interface enables alarm system control, ex. arm-disarm of alarm system partition, delete alarms.







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Map creation tool

## the beginning for the user

## **Multi-level interactive maps**

Object maps in NMS enables quick and intuitive access to images from cameras. On the maps are located icons, which symbolize cameras and system elements, such as alarm detectors, contacts, sirens. By clicking on the selected icon, the user can immediately see an image from the camera

or activate building automation components. Additionally, the icons constantly inform about current events linked with each element (by colour change), ensuring rapid assessment of the situation in the monitored areas. Visualization feature is particularly important in complex, expanded systems, with several dozen cameras located in different places of the object. Searching cameras by name on the list of devices is much less convenient than finding them at the right place on the map imaging real object. In the case of complex systems, it is helpful to divide them into several logical subsystems and create several maps. User switches between them through clickable links (like navigating on the web).

Creating a map is easy and fast with an intuitive editor. Any image in a graphical format can be used as a background of the map. This may be an object image, building plan or monitored object visualization, designed from

On the map background are placed ready icons symbolized elements of monitoring system, download from a toolbox. The appearance and arrangement of icons can be freely edited. The map, to be an interactive, should be "linked" with icons symbolize the relevant elements of the monitoring system. It is necessary to define which icon is assigned to each camera. Thanks to this, clicking on the desired icon automatically displays the image from the camera assigned to it.





# HDDs

Recording megapixel streams requires more disc space than recording streams from standard definition cameras. To meet this challenge NMS Server platforms allows you to install up to 5 HDDs, 2TB capacity each. To increase this space and keep full security of recordings, it is possible to record on external storage connected to NMS server in iSCSI. Professional storage arrays provide the opportunity to work in either RAID 5, 6 or 10 modes, well protecting important recordings from loss in case of disc damage.



#### **PTZ management**

NMS software allows to control PTZ cameras (including megapixel) directly on the image from the camera. Mouse movements are processed by the program into control commands. Commands using to save or to activate camera's functions (such as presets, routes) are available in classical PTZ panel, in addition to the directional cursor commands.



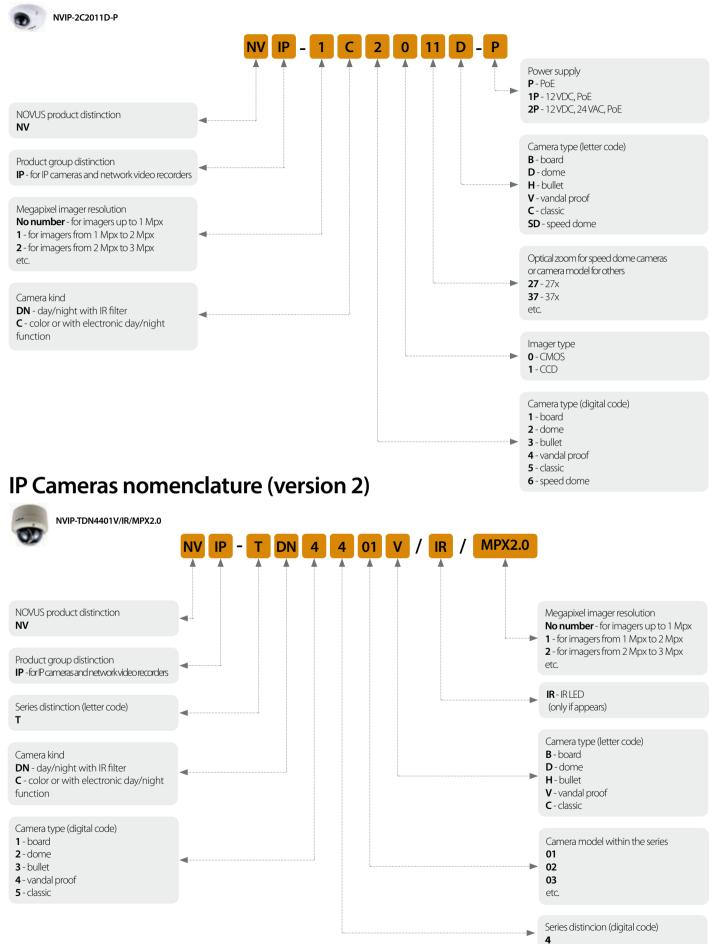
NMS software supports keyboard with joystick, connected to a workstation through the USB port. The keyboard controls a camera and allows to perform basic functions of NMS (ex. switching of views, playback).

## **Access protection**

NMS allows to create expanded systems with multiple server and client stations. To protect servers from unauthorized access, NMS is equipped with mechanisms for controlling connections from the client stations. Each server has an option to define the list of allowed IP addresses, which can connect to the server and receive video streams. With this function, even after breaking a password, it is not possible to connect to the server using other computer than a dedicated client.



# IP Cameras nomenclature (version 1)







# Features and functions of IP devices

#### **IR lenses - aberration correction**

Aberration correction for a range of infrared light is particularly important in the case of dual (D&N) and monochromatic cameras, working in the daylight and artificial light (where much of the radiation is within the IR range), or with IR illuminators. The lack of IR correction may result in loss of image sharpness.

Supported in speed dome cameras, Full HD and series

Lack of IR correction

IR correction

## Lens format

The lens format should be larger or the same as the format of the camera's imager, which the lens works with. It is permissible to use the lens with the larger format than the size of the camera's imager (the angle of view decreases approximately by 30%). The improperly adjusted lens causes ex.: blurring, vignetting or narrowing the viewing angle.

Supported in cameras Full HD and series



Acceptable lensnarrow image Lens format - 1/2" Imager format - 1/3"



Improper lens vignette image Lens format - 1/4" Imager format - 1/3"



**Proper lens** correct image Lens format - 1/3" Imager format - 1/3"



HD resolution (1280 x 720): SD resolution (720 x 576)

## HD-SDI output - speed dome cameras

HD-SDI is a standard of the digital signal transmission from high resolution cameras with HD (1280 x 720) or Full HD (1920 x 1080) via coaxial cable. HD-SDI output enables monitoring and recording high quality images, comparable to the megapixel camera quality, without inconvenient delays. The HD standard uses transmission media.

Supported in speed dome camera NVIP-1DN6118SD

#### **PoE (Power over Ethernet)**

PoE technology enables transmission of the electrical power via twisted-pair, ex. in IP cameras. Thanks to this feature, the camera installation is easy and fast, because data and power supply are transmitted via one cable and an installer does not have to work at 230V.

Supported in cameras Full HD and series T.





# Resolution

• Full HD (Full High Definition) - video signal resolution of 1920 x 1080 pixels in 16:9 format (HD 1080)

Supported in cameras Full HD

• HD (High Definition) - video signal resolution of 1280 x 720 pixels in 16:9 format (HD 720)

Supported in cameras Full HD and series

# • SD (Standard Definition) - video signal resolution of 720 x 576 pixels in 4:3 format (PAL)

Supported in cameras Full HD and series



Full HD resolution (1920 x 1080)

HD resolution (1280 x 720)

SD resolution (720 x 576)



## **Multistreaming mode**

This feature enables simultaneous generation of multiple video streams with different parameters. Each stream is optimally configured for a particular device, ex.: NVR Server, client station, smartphone. The appropriate adaptation of streams can reduce the required bandwidth.

Supported in speed dome cameras , Full HD and series T.



## Two-way audio transmission

This function transmits sound via IP cameras, using built-in or directly connected with them devices, ex. microphone, speaker. It enables to record sound and images, as well as send voice messages to the people within the speaker range. Audio transmission between a camera and a workstation (server) is possible through the network cable (CAT5 UTP), which is also used to transmit video, alarms and power supply (PoE).

Supported in speed dome cameras, Full HD and series



## NVR (Network Video Recorder)

A hardware platform with the NMS software installed, used for recording images from IP cameras (NMS NVR Server) or as the monitoring station (NMS NVR Client).







DNR off

DNR on

#### **DNR - Digital Noise Reduction**

This function electronically reduces the amount of image noise. The noise, apart from worsening the comfort of scene observation, causes a significant increase in the average size of frame recorded in MPEG-4 or H.264 compression and thus shortens HDD recording time.

Supported in speed dome cameras, Full HD



WDR off

WDR on

## WDR - Wide Dynamic Range

The WDR feature ensures enhanced image quality when illumination of the observed scene varies excessively. Digital image correction provides better exposure of both dark and bright areas, eliminating the effect of overexposed or too dark areas in the same frame. It ensures, for example, clear visibility of people faces, if they are positioned against strong back lighting, such as windows or glass doors in the background.

Supported in speed dome cameras, Full HD

#### Day/night function

Day/night function allows the camera to be switched from color mode into black/white mode in low light conditions.



Electronic D/N function off

Electronic D/N function on

## **Electronic day/night function**

The operation of electronic day/night function is to cut out a color component from the video signal, so that in low light conditions there is no camera "snow" effect. It has an important impact on the size of recording data in DVRs using H.264 or MPEG-4 compression.



#### **Mechanical IR cut filter**

This function significates that the IR filter is mechanically removed in low light conditions, that is why the imager receives more light from the infrared range and the camera's sensitivity significantly increases.

Supported in speed dome cameras, Full HD and series

Electronic D/N function on

Mechanical IR cut filter on



DIS off

DIS on

#### **DIS - Digital Image Stabilization**

This function eliminates image blurring from camera shaking caused by vibrations from passing vehicles or gusts of wind.

Supported in speed dome cameras







#### **Motion Detection**

This function enables detecting movement in user-defined areas of a scene, and then - depending on the model automatically activates alarm outputs or displays an appropriate message on the screen.

Supported in speed dome cameras, Full HD and series



Privacy zones off

Privacy zones on

#### **Privacy zones**

This function allows users to hide certain areas of the observed scene, for example windows of a building. It is especially useful when monitoring public places.

Supported in speed dome cameras, Full HD and series T.



DSS off

DSS on

#### **DSS - Digital Slow Shutter**

This function helps to obtain better, brighter images in low light conditions. Longer imager exposure (from 1/50 s to 20 s) causes the image to be less frequently read. A side effect of the DSS is smearing for fast moving objects.

Supported in speed dome cameras , Full HD and series



NOVUS® camera NVIP-3DN3010H/IRH-1P

**Convenient lens adjustment** The possibility to easily adjust focal length and focus, without opening an enclosure..

Supported in camera serie:

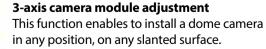




Camera installed on the ceiling

Camera installed on the slanted ceiling on the wall

Camera installed



Supported in cameras Full HD









#### Alarm output

The camera sends a signal to the alarm output when motion is detected. With this feature, an alarm system works autonomously and the camera is connected directly with a control panel. It is particularly helpful when the motion detection in the camera is used to signalize events or switch additional lighting, while there is no possibility to add more cables to the installation.

Supported in speed dome cameras, Full HD and series

Supported in cameras Full HD and series T.



#### Standard dome camera

NOVUS® vandal proof camera

#### Vandal proof enclosure

A camera body made of aluminium alloy along with transparent poly - carbonate bubble guarantee high mechanical resistance, confirmed by a relevant certificate. For example, G Series cameras vandal proof enclosures represent the highest 10th level of mechanical resistance on IK scale.

- Degree of protection IP65, IP66, IP67 • IP 65 - completely dust proof housing, resistant to water jets from any direction
  - IP 66 completely dust proof housing, resistant to strong water jets from all directions or wave flooding
  - IP 67 completely dust proof housing, resistant to immersion to a depth of 1 m for 30 min.

Supported in speed dome cameras, Full HD and series T.

#### **Fisheye lens**

NVIP-5DN2021D/IR-2P is a hemispherical camera with all-round 360° view provided by fisheye lens. The camera is ideal for monitoring large, enclosed spaces, such as lobby or warehouse. One camera positioned centrally on the ceiling covers an entire room. 5 megapixel, 1/2.5" CMOS imager and progressive scan provide very high resolution image.

Using the NMS application, system operator can select any part of an observed scene and control the camera's view as in conventional PTZ camera, including a digital zoom function (digital PTZ). Image rotating and zooming is possible in live and playback mode. User can simultaneously display any number of streams and observe different parts of the scene, also in separate windows.

Supported in NVIP-5DN2021D/IR-2P camera



Fisheye lens



Horizontal viewing angle of 180°



4 virtual PTZ cameras





# **PTZ functions**

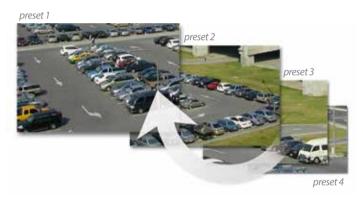
PTZ cameras can automatically move between points or selected routes predefined by the operator.

Supported in speed dome cameras



## Preset

It is a specified position, with the defined zoom and focus, saved in the camera's memory. This position may be executed by the user at any time or activated directly from a keyboard or a DVR.



# Tour

This function enables to execute the sequence of presets, patterns, other tours and auto-scans predefined by the user. There is a possibility to program a certain number of actions that can be executed by the camera at a given time or repeated a selected number of times.



# Pattern

This function enables saving and restoring any action taken by the user controlling a PTZ camera (pan/tilt/zoom) at a given time.





# **IP Cameras Comparison**

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Day/Night Fu	unction	-	IR cut	filter		IR cut filter		
Min. Illumina		1 lx/F=1.2	1 lx/F=1.2 - color 0 lx/F=1.2, IR on	0.74 lx/F=1.2 - color 0.37 lx/F=1.2 - B/W	0.5 lx/F=1.4 - color DSS 0.1 lx/F=1.4 - B/W DSS	0.37 k/F=1.2-color DSS 0 lx/F=1.2, IR on	0.32 lx/F=1.2 - color DSS 0 lx/F=1.2, IR on	
Digital Slow S	Shutter (DSS)	0.03 ~ 0.2 s	0.03 s			0.03 ~ 0.2 s		
Video Compr	ression	H.264, MPE	EG-4, M-JPEG	H.264, MPEG-4 (3GPP mode), M-JPEG	H.264, MPEG-4, M-JPEG			
Frame Rate	ame Rate Up to 30 fps for 1280x8 and lower		Up to 30 fps for 1280x800 and lower	(,,,	Up to 15 fps for 1600x1200, up to 22 fps for 1280x1024, up to 25 fps for 1280x960, 1280x720 and lower			
Stream Resolution         1280 x 800, (1280 x 720 (HD 720), 640 x 480 (VGA), 1280 x 720 (HD 720), 640 x 480 (VGA), 1280 x 720 (HD 720)         1600 x 1200 (UXGA), 1280 x 102 (UXGA), 1280 x 102 (UXGA), 1280 x 720 (HD 720), 640 x 480 (VGA), 1280 x 720 (HD 720)           320 x 240 (QVGA), 1280 x 720 (HD 720)         320 x 240 (QVGA), 1280 x 720 (HD 720)         1280 x 960, 1280 x 720 (HD 720)			x1200 (UXGA), 1280x1024 ( 280x960, 1280x720 (HD 72					
Multistreami	ng Mode		Max. 3 streams			Max. 3 streams		
Number of Simultaneous Max. 10				Max. 10				
Audio I/O		1/1		Built-in microphone / 1 x Jack (3.5 mm)	Built-in microphone/ 1 x RCA 1 x Jack (3.5 mm		/ 1 x Jack (3.5 mm)	
Audio Comp	ression	G.711/G.726		TX SUCK (SIS THIN)	TATION	µ-LAW		
Two-way Aud	dioTransmission		Yes	Yes		Yes		
Lens		f=2.8 ~	- 10 mm	-	-	f=2.7 ~ 9 mm	f=3.6 ~ 16 mm	
IR LED		-	18 LED,12 m range	-	-	18 LED, 15 m range	35 LED, 20 m range	
SD Card Sup	port		Yes		Y	/es		
Alarm I/O			1/1			1/1		
Prealarm/Pos	stalarm		Up to 5 s/up to 5 s			Up to 5 s/up to 10 s		
Motion Dete	ction		Yes			Yes		
E-mail Event	Notification		Yes			Yes		
System Log			Yes			Max. 750 events		
Recording Sc	chedule		Yes			Yes		
Privacy Zone	S		3			3		
Video Outpu			-			CVBS (BNC)		
Power Supply		12 VDC, PoE	12 VDC	12 VDC, PoE		12 VDC, PoE		
Degree of Pro	otection		-		-		66	
Operating Te	emperature		-10℃ ~ 45℃			-10℃ ~ 45℃		
Fan/Heater		131.2 x 94.3	- 131.2 x 94.3	60 x 53 x 100	65 x 58 x 145	- 141 x 132	83 x 180	
Dimensions (	(mm)	(Ø) x (H)	(Ø) x (H)	(W) x (H) x (L)	(W) x (H) x (L)	(Ø) x (H)	(Ø) x (L)	
	Preset Commands		-			-		
	Tours		-			-		
PTZ	Patterns		-			-		
	Pan Speed		-			-		
	Optical Zoom		-			-		
Compatible S	Software		NOVUS NMS (included),			NOVUS NMS (included), MMS Compatible ALNET NET STATION, AXXO	Ν	

 $\ensuremath{^{*\text{PoE}}}$  PoE+ is available for camera operating without heater and/or fan  $\ensuremath{^{*\text{Available}}}$  with optional cable





NVIP- 2DN5001C-1P	NVIP- 2C2011D-P	NVIP- 2DN2001D-2P	NVIP- 2DN4001V/IRH-2P	NVIP- 2DN3001H/IR-2P	NVIP- 2DN3001H/IRH2	NVIP- 2DN35018CZ-2P
-	•			1-0		
Full HD	Full HD	Full HD	Full HD	Full HD	Full HD	Full HD
32	33	34	35	36	36	37
		1/2.7"	CMOS			1/2.7" CMOS
		2 MPX (19	920x1080)			2 MPX (1920x1080)
IR cut filter 0.2 k/F=1.2 - color 0.02 k/F=1.2 - B/W 0.04	Electronic 0.1 k/F=1.5 - color, DSS 0.1 k/F=1.5 - B/W, DSS 4 ~ 1 s	0.2 lx/F=1.2 - color 0.02 lx/F=1.2 - B/W		0.2 lx/F=1.2 - color 0 lx/F=1.2, IR on		IR cut filter 0.2 lx/F=1.2 - color, DSS, 0.02 lx/F=1.2 - B/W, DSS 0.04 ~ 0.67 s
		H.264, I	M-JPEG			H.264, MJPEG
		Up to 25 fps for 19.				30 fps for each
		1920x1080 (HD 1080	)), 1280x1024 (SXGA), )), 1024x768 (XGA)			resolution 1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
	Max. 2 streams			Max. 4 streams		Max. 4 streams
		Max	k. 10			Max. 10
1 x Jack (3.5 mm)/ 1 x Jack (3.5 mm)	Built-in microphone/-			1/1 x Jack (3.5 mm)		1 x Jack (3,5 mm)/1 x Jack (3,5 mm)
No		G.711,	/G.726	(		G.711, G.726
Yes	- f=4 mm			∕es ∙9 mm		Yes f=4.7 ~ 84.6 mm
	1-411111			23 LED, 25 m range		1-4.7 ** 04.011111
		V	25	25 LLD, 25 III Talige		Yes
1/1	-/-	10		/1		1/1
		to 3 s (or up to 20 frames)/u				Up to 3 s (or up to 20 frames)/up to 9999 s (or up to 20 frames)
		Ye	25			Yes
						-
		Ye	25			Yes
			5			5
CVBS (BNC)		-			(BNC)	CVBS (BNC)
12 VDC, PoE	PoE	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC, PoE*	12 VDC, 24 VAC, PoE	12 VDC, 24 VAC	12 VDC, 24 VAC, PoE
	-		20%5 50%5	IP 66	25% 50%	-
	-10°C ~ 50°C -		-30°C ~ 50°C Yes	-10°C ~ 50°C -	-35℃ ~ 50℃ Yes	0°C ~ 40°C
75 x 52 x 125 (W) x (H) x (L)	- 111 x 48 (Ø) x (H)	149 x 131 (Ø) x (H)	149 x 135 (Ø) x (H)	- 88 x 270 x 90 (Ø) x (L) x (H)	88 x 270 x 90 (Ø) x (L) x (H)	- 80.5 x 52.5 x 183.5 (W) x (H) x (L)
			-			-
			-			-
			-			-
			-			-
		NOVUS NM:	S (included), MS <b>Compatible</b>			NOVUS NMS (included),





# **IP Cameras Comparison**

		NVIP- 3DN3010H/IRH-1P	NVIP- 5DN5001C-1P	NVIP- 5DN2021D/IR-2P
			Full HD	Full HD
Page		38	39	40
Pick-up Elem	nent	1/2.8" CMOS	1/2.5" CMOS	1/2.5" CMOS
Imager Reso	olution	3 MPX (2048x1536)	5 MPX (2592x1944)	5 MPX (2592x1944)
Day/Night F	unction	IR cut filter	IR cut filter	IR cut filter
Min. Illumina	ation	0.3 lx/F=1.2 - color 0 lx/F=1.2, IR on	0.2 lx/F=1.2 - color, DSS, 0.02 lx/F=1.2 - B/W, DSS	0.2 lx/F=2.8 - color, DSS, 0.02 lx/F=2.8 - B/W, DSS, 0 lx (IR on)
Digital Slow	Shutter (DSS)	0.13 ~ 1 s	0.04 ~ 0.67 s	0.04 ~ 0.67 s
Video Comp	pression	H.264, MPEG-4, M-JPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate		Up to 15 fps for 2048x1536 and lower	10 fps for 2592 x 1944, 15 fps for 2048 x 1536, 25 fps for 1920 x 1080 and lower	10 fps for 2592 x 1944, 15 fps for 2048 x 1536, 25 fps for 1920 x 1080 and lower
Stream Reso	plution	2048 x 1536 (QXGA), 1600 x 1200 (UXGA), 1920 x 1080 (FullHD), 1280 x 1024 (SXGA), 1280 x 960,1280 x 720 (HD), 1024 x 768 (XGA), 640 x 480 (VGA), 320 x 240 (QVGA)	2592 x 1944, 2048 x 1536 (QXGA), 1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	2592 x 1944, 2048 x 1536 (OXGA), 1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Multistream	ing Mode	Max. 3 streams	Max. 4 streams	Max. 4 streams
Number of S Connections	Simultaneous s	Max. 10	Max. 8	Max. 8
Audio I/O		1 x RCA/1 x RCA	1 x Jack (3,5 mm)/ 1 x Jack (3,5 mm)	1 x Jack (3,5 mm)/1 x Jack (3,5 mm)*, built-in 2 W speaker, built-in microphone
Audio Comp	pression	G.711	G.711, G.726	G.711, G.726
Two-way Au	idio Transmission	Yes	Yes	Yes
Lens		f=3 ~ 10 mm	-	"fisheye", f=1.05 mm/F=2.8
IR LED		40 LED, 40 m range	-	6 LED, 5 m range
SD Card Sup	oport	-	Yes	Yes
Alarm I/O		1/1	1/1	1/1
Prealarm/Po	ostalarm	Up to 10 s/up to 30 s	Up to 3 s (or up to 20 frames)/up to 9999 s (or up to 20 frames)	Up to 3 s (or up to 20 frames)/up to 9999 s (or up to 20 frames)
Motion Dete	ection	Yes	Yes	Yes
E-mail Event	t Notification	Yes	Yes	Yes
System Log		-	-	-
Recording S	chedule	Yes	Yes	Yes
Privacy Zone	es	6	5	5
Video Outpu	ut	CVBS (BNC)	CVBS (BNC)	-
Power Supp	ly	12 VDC, PoE	12 VDC, PoE	12 VDC/24 VAC, PoE
Degree of Pr	rotection	IP 66	-	-
Operating Te	emperature	-40°C ~ 50°C	-10°C ~ 50°C	-10°C ~ 50°C
Fan/Heater		Yes	-	-
Dimensions	(mm)	83 x 82 x 166 (W) x (H) x (L)	75 x 52 x 125 (W) x (H) x (L)	149 x 45.8 (Ø) x (H)
	Preset Commands	-	-	-
	Tours	-	-	-
PTZ	Patterns	-	-	-
	Pan Speed	-	-	-
	Optical Zoom	-	-	-
Compatible	Software	NOVUS NMS (included),	NOVUS NMS (included),	NOVUS NMS (included),

\*PoE, PoE+ is available for camera operating without heater and/or fan \*\*Available with optional cable





NVIP- DN6137SD	NVIP- 2DN6020SD	NVIP- 2DN6020SD-2P
Ð	FullHD	FullHD
41	42	43
1/4"CCD	1/3"CMOS	1/2.8"CMOS
0.4 MPX (720x576)	2 MPX (1920x1080)	2 MPX (1920x1080)
	IR cut filter	
0.7 lx/F=1.6 - color 0.06 lx/F=1.6 - B/W	0.5 lx/F=1.6 - color DSS 0.005 lx/F=1.6 - B/W DSS	0.05 lx/F=1.6 - color, DSS, 0.01 lx/F=1.6 - B/W, DSS
0.04 ~ 5.12 s	Auto/Off	0.08 s ~ 1 s
	H.264, MJPEG	
Up to 25 fps for 720x576 and lower	Up to 30 fps for 1920x1080 and lower	30 fps for each resolution
720x576 (D1), 720x288 (2CIF), 352x288 (CIF)	1920 x 1080 (Full HD), 1680 x 1050 (WSXGA), 1600 x 900, 1440 x 900, 1280 x 960, 1280 x 720 (HD 720p), 800 x 600 (SXGA), 720x576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480(VGA), 352 x 288 (CIF)
Max. 2	streams	Max. 4 streams
Ma	x. 10	Max. 5
1 x RCA	1/1	
	G.711/G.726	
	Yes	
f=3.5 ~ 129.5 mm	f=4.7 ~	94 mm
	-	
	-	Yes
3/1	2/2	4/2
Up to 5 s	i/up to 5 s	Up to 3 s (or up to 20 frames)/up to 9999 s (or up to 20 frames)
	Yes	(of up to 20 names)
	Yes	
	-	
	Yes	
8	8	16
CVBS (BNC)	HD-SDI (BNC)	-
12 VDC	12 VDC, 3 A	24 VAC, PoE+ *
IP	67	IP 66
-30°C	~ 50°C	-40°C ~ 50°C
	Yes	
310 × 286 (L) × (H) (with mounting bracket)	310 × 286 (L) × (H) (with mounting bracket)	254 x 354 (L) x (H) (with mounting bracket)
	28	256
	8	8
	4	8
0.05 -	360°/s	0.5 - 90°/s
37x	20x	20x
NOVI IS NM	IS (included),	NOVUS NMS (included),
	nms Compatible TATION, AXXON	Compatible









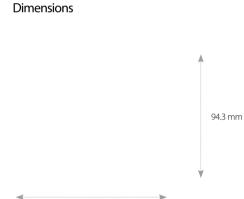






# Key Features

- Resolution 1MPX
- ${\scriptstyle \bullet}$  Min. Illumination 1 lx
- Lens f=2.8 ~ 10 mm/F=1.2
- SD card support



131.2 mm (Ø)

# Compatible

	NVIP-TC2401D/MPX1.0
IMAGE	
Pick-up Element	1 MPX, CMOS imager, 1/4"
Number of Effective Pixels	1280 (H) × 800 (V)
Min. Illumination	1 lx/F=1.2
S/N Ratio	50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
LENS	
Туре	f=2.8 ~ 10 mm/F=1.2
Angle of View (H)	80° ~ 23°
NETWORK	
Stream Resolution	1280 x 800, 1280 x 720 (HD 720), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, UDP, HTTPS, FTP, DHCP, DDNS, NTP, 3GPP, RTSP, UPnP, QoS
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 5 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server/SD card, output activation
Image Processing	Mirror effect, 180° image rotation, sharpening
INTERFACES	
Audio Input/Output	1/1
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	131.2 (Ø) x 94.3 (H)
Weight	340 g
Enclosure	Plastic, white
Power Supply	PoE, 12 VDC (230 VAC/12 VDC PSU in-set included)
Power Consumption	2.88 W
Operating Temperature	-10°C ~ 45°C





# Dome IP Camera









# Key Features

- Resolution 1 MPX
- D/N functions IR cut filter
- Min. Illumination from 1 lx (0 lx, IR on)
- $\bullet$  Auto iris DC lens, f=2.8  $\sim$  10 mm/F=1.2
- IR LED, range up to 12 m
- microSD card support

# Dimensions



Compatible

	NVIP-TDN2401D/IR/MPX1.0
IMAGE	
Pick-up Element	1 MPX, CMOS imager, 1/4"
Number of Effective Pixels	1280 (H) × 800 (V)
Min. Illumination	1 lx/F=1.2 - color mode, 0 lx (IR on) - B/W mode
S/N Ratio	50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Туре	Auto iris DC, f=2.8 ~ 10 mm/F=1.2
Angle of View (H)	80° ~ 23°
DAY/NIGHT	
Stream Resolution	1280 x 800 (WXGA), 1280 x 720 (HD 720), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, HTTPS, SNMP, QoS/DSCP, Access list, IEEE 802.1X, RTSP, TCP/ IP, UDP, SMTP, FTP, PPPoE DHCP, DDNS, NTP, UPnP, 3GPP, SAMBA, Bonjour
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 5 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/ Samba server/microSD card, output activation
Image Processing	Mirror effect,sharpening
IR LED	
Number	18
Range	12 m
Angle	30°
INTERFACES	
Audio Input/Output	1/1
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	microSD
INSTALLATION PARAMETERS	
Dimensions (mm)	131.2 (Ø) × 94.3 (H)
Weight	330 g
Enclosure	Plastic, white
Power Supply	12 VDC (230 VAC/12 VDC PSU in-set included)
Power Consumption	2.9 W, 4.1 W (IR on)
Operating Temperature	-10°C ~ 45°C













# Key Features

- Resolution 1 MPX
- D/N function IR cut filter
- Min. Illumination from 0.37 lx
- microSD card support

# Dimensions







# 

INACE	NVIP-TDN5410C/MPX1.0
IMAGE	1 HDV CHOC
Pick-up Element	1 MPX, CMOS imager, 1/4"
Number of Effective Pixels	1280 (H) x 800 (V) 0.74 lx/F=1.2 - color mode.
Min. Illumination	0.37 kr/F=1.2 - Color Mode,
S/N Ratio	50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
COMPATIBLE LENSES	
Mount	CS
Iris Mode	D
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual/timer/external (via alarm input)
NETWORK	
Stream Resolution	1280 x 800 (WXGA), 1280 x 720 (HD 720), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	IPv6, IPv4, HTTP, HTTPS, SNMP, QoS/DSCP, Access list, IEEE 802.1X, RTSP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP, SAMBA, Bonjour
PC Software	Novus NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 5 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server/microSD card, output activation
Image Processing	Mirror effect, 180° image rotation, sharpening
INTERFACES	
Audio Input/Output	Built-in microphone /1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	microSD
INSTALLATION PARAMETERS	
Dimensions (mm)	60 (W) x 53 (H) x 100 (L)
Weight	400 g
Enclosure	Aluminium/steel, silver
Power Supply	PoE, 12 VDC
Power Consumption	2.9 W (PoE), 2.4 W (12 VDC)
Operating Temperature	-10°C ~ 45°C





# Classic IP Camera NVIP-TDN5401C/MPX2.0





# Key Features

- Resolution 2 MPX
- D/N function IR cut filter
- Min. Illumination from 0.1 lx
- SD card support

## Dimensions







	NVIP-TDN5401C/MPX2.0
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/3"
Number of Effective Pixels	1600 (H) x 1200 (V)
	0.5 lx/F=1.4 - color mode DSS,
Min. Illumination	0.1 lx/F=1.4 - B/W mode DSS
S/N Ratio	50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
COMPATIBLE LENSES	
Mount	C/CS
Iris Mode	D
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/schedule/external (via alarm input)
NETWORK	
Stream Resolution	1600 x 1200 (UXGA), 1280 x 1024 (SXGA), 1280 x 960, 1280 x 720 (HD 720), 800 x 592 (SVGA), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF)
Frame Rate	15 fps for 1600 x 1200, 22 fps for 1280 x 1024, 25 fps for 1280 x 960, 1280 x 720 and lower resolutions
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/µ-LAW
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, FTP, NTP, DDNS, DHCP, UDP, TCP/IP, RTP, RTSP, 3GPP, UPnP
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 10 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server/SD card
Image Processing	Mirror effect, sharpening
INTERFACES	
Video Output	BNC, 1.0 V <sub>PP</sub> , 75 Ohm
Audio Input/Output	Built-in microphone/1 x RCA
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	65 (W) x 58 (H) x 145 (L)
Weight	450 g
Enclosure	Aluminium/steel, silver
Power Supply	PoE, 12 VDC (230 VAC/12 VDC PSU in-set included)
Power Consumption	5.5 W
Operating Temperature	-10°C ~ 45°C

Related products details are available on pages 67 and 69-72.

www.novuscctv.com





# Vandal Proof IP Camera









# Key Features

- Resolution 2 MPX
- D/N function IR cut filter
- Min. Illumination 0.37 lx (0 lx, IR on)
- $\bullet$  Aspherical auto iris DC lens, f=2.7  $\sim$  9 mm/F=1.2
- IR LED, range up to 15 m
- SD card support

# Dimensions





# **Related Products**



NVB-G40DB

Compatible

	NVIP-TDN4401V/IR/MPX2.0
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/3"
Number of Effective Pixels	1600 (H) x 1200 (V)
Min. Illumination	0.37 lx/F=1.2 - color mode DSS,
S/N Ratio	0 lx (IR on) - B/W mode DSS 50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
LENS	0.03 \$ ~ 0.2 \$
Туре	Aspherical auto iris DC, f=2.7 ~ 9 mm/F=1.2
Angle of View (H)	83° ~ 26.2°
DAY/NIGHT	05 * 20.2
Type	Mechanical IR cut filter
Switching Mode	Auto
NETWORK	Auto
Stream Resolution	1600 x 1200 (UXGA), 1280 x 1024 (SXGA), 1280 x 960, 1280 x 720 (HD 720), 800 x 592 (SVGA), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF)
Frame Rate	15 fps for 1600 x 1200, 22 fps for 1280 x 1024, 25 fps for 1280 x 960, 1280 x 720, 800 x 592 and lower resolutions
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/µ-LAW
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, UDP, FTP, DHCP, DDNS, NTP, 3GPP, RTSP, UPnP
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 10 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server/SD card
Image Processing	Mirror effect, sharpening
IR LED	
Number	18
Range	15 m
Angle	30°
INTERFACES	
Video Output	BNC, 1.0 V <sub>PP</sub> , 75 Ohm
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	4.44.700 - 4.20.700
Dimensions (mm)	141 (Ø) x 132 (H)
Weight	1.22 kg
Enclosure	Vandal proof, aluminium, white, poly-carbonate bubble
Power Supply	PoE, 12 VDC (230 VAC/12 VDC PSU in-set included)
Power Consumption	5.5 W, 8 W (IR on)
Operating Temperature	-10°C ~ 45°C
Degree of Protection	IP 66





# **Bullet IP Camera**









# Key Features

- Resolution 2 MPX
- D/N function IR cut filter
- Min. Illumination 0.32 lx (0 lx, IR on)
- Auto iris DC lens, f=3.6 ~ 16 mm/F=1.2
- IR LED, range up to 20 m



	NVIP-TDN3401H/IR/MPX2.0
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/3"
Number of Effective Pixels	1600 (H) x 1200 (V)
Min. Illumination	0.32 lx/F=1.2 - color mode DSS, 0 lx (IR on) - B/W mode
S/N Ratio	50 dB
Digital Slow Shutter (DSS)	0.03 s ~ 0.2 s
LENS	
Туре	Auto iris DC, f=3.6 ~ 16 mm/F=1.2
Angle of View (H)	54° ~ 19°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto
NETWORK	
Stream Resolution	1600 x 1200 (UXGA), 1280 x 1024 (SXGA), 1280 x 960, 1280 x 720 (HD 720), 800 x 592 (SVGA), 640 x 480 (VGA), 320 x 240 (QVGA), 176 x 144 (QCIF) 15 fps for 1600 x 1200,
Frame Rate	22 fps for 1280 x 1024, 25 fps for 1280 x 960, 30 fps for 1280 x 720 and lower resolutions
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG-4 (3GPP mode), M-JPEG/µ-LAW
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, UDP, FTP, DHCP, DDNS, NTP, 3GPP, RTSP, UPnP
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	3
Motion Detection	Yes
Prealarm/Postalarm	1 s- 5 s/1 s - 10 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server
IR LED	
Number	16/19 (two types, 35 in total)
Range	20 m
Angle	30°/60°
INTERFACES	
Video Output	BNC, 1.0 V <sub>p-p</sub> , 75 Ohm
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
INSTALLATION PARAMETERS	
Dimensions (mm)	83 (Ø) x 180 (L)
Weight	1.22 kg
Enclosure	Aluminium, silver, mounting bracket and sunshield in-set included
Power Supply	PoE, 12 VDC (230 VAC/12 VDC PSU in-set included) 6 W.
Power Consumption	8.5 W (IR on)
Operating Temperature	-10°C ~ 45°C
Degree of Protection	IP 66





# Classic IP Camera NVIP-2DN5001C-1P



# **Key Features**

- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.02 lx
- SD card support

#### Dimensions



# **Related Products**





Compatible

	NVIP-2DN5001C-1P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.7"
Number of Effective Pixels	1920 (H) x 1080 (V)
Min. Illumination	0.2 lx/F=1.2 - color mode DSS, 0.02 lx/F=1.2 - B/W mode DSS
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 1 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
COMPATIBLE LENSES	
Mount	C/CS
Iris Mode	D
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual/smart
NETWORK	
Stream Resolution	1920 x 1080 (HD 1080p), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	25 fps for each resolution
Multistreaming Mode	2 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	5
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server, output activation, HTTP notification
INTERFACES	
Video Output	BNC, 1.0 V <sub>PP</sub> , 75 Ohm
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	75 (W) x 52 (H) x 125 (L)
Weight	350 g
Enclosure	Aluminium, white
Power Supply	PoE, 12 VDC
Power Consumption	4 W
Operating Temperature	-10°C ~ 50°C

Related products details are available on pages 67 and 69-72.





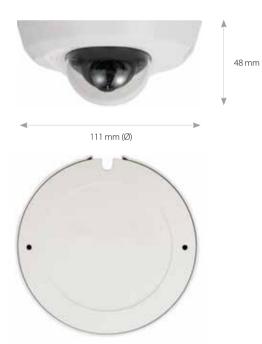
# **Dome IP Camera** NVIP-2C2011D-P





# **Key Features**

- Resolution 2 MPX (FULL HD)
- D/N function electronic
- Min. Illumination 0.1 lx
- Standard lens, f=4 mm/F=1.5
- SD card support



	NVIP-2C2011D-P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.7" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) × 1080 (V)
Min. Illumination	0.1 lx/F=1.5 - color mode DSS, 0.1 lx/F=1.5 - B/W mode DSS
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 1 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Туре	Standard, f=4 mm/F=1.5
Angle of View (H)	78°
DAY/NIGHT	
Туре	Electronic D/N function
Switching Mode	Auto
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	25 fps for each resolution
Multistreaming Mode	2 streams
Video Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	5
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server, output activation, HTTP notification
NTP	Synchronization with selected server
INTERFACES	
Audio Input/Output	Built-in microphone/-
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	111 (Ø) x 48 (H)
Weight	200 g
Enclosure	Plastic, white
Power Supply	PoE
Power Consumption	3.5 W
Operating Temperature	-10°C ~ 50°C





# **Dome IP Camera** NVIP-2DN2001D-2P





# **Key Features**

- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.02 lx
- Auto iris DC lens, f=3 ~ 9 mm/F=1.2
- SD card support



Compatible	Full <b>HD</b>
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	NVIP-2DN2001D-2P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.7" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) x 1080 (V)
Min. Illumination	0.2 lx/F=1.2 - color mode DSS, 0.02 lx/F=1.2 - B/W mode DSS
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 1 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Туре	Auto iris DC, f=3 ~ 9 mm/F=1.2
Angle of View (H)	104° ~ 35°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual/smart
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	25 fps for each resolution
Multistreaming Mode	2 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS,
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	5
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server, output activation, HTTP notification
NTP	Synchronization with selected server
INTERFACES	
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	149 (Ø) x 131 (H)
Weight	900 g
Enclosure	Plastic, white
Power Supply	PoE, 12 VDC/24 VAC
Power Consumption	5 W
Operating Temperature	-10°C ~ 50°C





# Vandal Proof IP Camera

NVIP-2DN4001V/IRH-2P







- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.02 lx (0 lx, IR on)
- Auto iris DC lens, f=3 ~ 9 mm/F=1.2
- IR LED, range up to 25 m
- SD card support





	NVIP-2DN4001V/IRH-2P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.7" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) × 1080 (V)
Min. Illumination	0.2 k/F=1.2 - color mode DSS, 0.02 k/F=1.2 - B/W mode DSS, 0 k/ (IR on)
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 1 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Туре	Auto iris DC, f=3 ~ 9 mm/F=1.2
Angle of View (H)	104° ~ 35°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual/light sensor/smart
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	25 fps for 1920 x 1080 and lower resolutions
Multistreaming Mode	4 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	5
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server, output activation, HTTP notification
IR LED	
Number	23
Range	25 m
Angle	90°
INTERFACES	
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	149 (Ø) x 135 (H)
Weight	1.2 kg
Enclosure	Vandal proof, aluminium, poly-carbonate bubble
Power Supply	PoE*, 12 VDC/24 VAC
Power Consumption	5 W, 8 W (IR on), 13 W (heater and IR on)
Operating Temperature	-30°C ~ 50°C
Built-in Heater/Fan	Yes/Yes (supported only with 12 VDC/24 VAC)
Degree of Protection	IP 66





# **Bullet IP Camera**

NVIP-2DN3001H/IR-2P, NVIP-2DN3001H/IRH-2







- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.02 lx (0 lx, IR on)
- Auto iris DC lens, f=3 ~ 9 mm/F=1.2
- IR LED, range up to 25 m
- SD card support

# Dimensions



85 mm

200111

270 mm



	NVIP-2DN3001H/IR-2P	NVIP-2DN3001H/IRH-2
IMAGE		
Pick-up Element	2 MPX, CMOS imager, 1/2.7" (16:9 format), progressive scan	
Number of Effective Pixels	1920 (H) x 1080 (V)	
Min. Illumination	0.2 k/F=1.2 - color mode DSS, 0.02 k/F=1.2 - B/W mode DSS, 0 k (IR on)	
S/N Ratio	> 60 dB (AGC off)	
Digital Slow Shutter (DSS)	0.04 s ~ 1 s	
Wide Dynamic Range (WDR)	Yes	
Digital Noise Reduction (DNR)	Yes	
LENS		
Туре	Auto iris DC, f=3 ~ 9 mm/F=1.2	
Angle of View (H)	104° ~ 35°	
DAY/NIGHT		
Туре	Mechanical IR cut filter	
Switching Mode	Auto/manual/light sensor/smart	
NETWORK	1000 1000 (F. II.) (D) 1000 1000 (C)	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	
Frame Rate	25 fps for each resolution	
Multistreaming Mode	4 streams	
Video Compression	H.264, M-JPEG/G.711, G.726	
Number of Simultaneous Connections	Max. 10	
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS	
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer	
OTHER FUNCTIONS		
OSD	IE browser, Polish, English, Russian and others	
Privacy Zones	5	
Motion Detection	Yes	
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s	
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/Samba server, output activation, HTTP notification	
IR LED		
Number	23	
Range	25 m	
Angle	70	0°
INTERFACES	DN/C	75.01
Video Output	BNC, 1.0 V <sub>PP</sub> , 75 Ohm	
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)	
Alarm Input/Output	1/1 1. Etheren Dirk for 10/(2004)::/	
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s Yes	
Memory Card Slot	Ye	25
INSTALLATION PARAMETERS	00.720	() 070
Dimensions (mm)	88 (Ø) x 270 (L) 1 kg	
Weight	I kg Aluminium, white, mounting bracket and sunshield in-set included	
Enclosure Rower Supply		
Power Supply	PoE, 12 VDC/24 VAC	12 VDC/24 VAC 5 W, 8 W (IR on),
Power Consumption	5 W, 8 W (IR on)	20 W (IR and heater on)
Operating Temperature	-10°C ~ 50°C	-35°C ~ 50°C
Built-in Heater	-	Yes
Degree of Protection	IP 66	



## **Classic IP Camera with Motor-zoom Lens**

NVIP-2DN5018CZ-2P



M NOVUS

NOVUS IP



#### **Key Features**

- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.02 lx
- Motor-zoom with Al and AF function, 18x optical zoom, f=4.7 ~ 84.6 mm/F=1.6 ~ 2.8
- SD card support

#### Dimensions



#### **Related Products**



Compatible	HD
	NVIP-2DN5018CZ-2P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.7"
Number of Effective Pixels	1920 (H) × 1080 (V)
Min. Illumination	0.2 lx/F=1.2 - color mode DSS, 0.02 lx/F=1.2 - B/W mode DSS
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 0.67 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Zoom	18x optical/8x digital
Туре	Motor-zoom with Al and AF function, f=4.7 $\sim$ 84.6 mm/F=1.6 $\sim$ 2.8
Angle of View (H)	61.5°~3.3°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual/smart
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	4 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, Qo
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	5
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/SD card, output activation, HTTP notification
INTERFACES	
Video Output	BNC, 1.0 Vp-p, 75 Ohm
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)
Alarm Input/Output	1/1
RS-485	Yes
Protocols	Pelco-D, Pelco-P
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	80.5 (W) x 52.5 (H) x 183.5 (L)
Weight	500 g
Enclosure	Aluminium, white
Power Supply	PoE, 12 VDC, 24 VAC
Power Consumption	6W
Operating Temperature	0°C ~ 40°C

#### Related products details are available on pages and 69-72.





## **Bullet IP Camera**

NVIP-3DN3010H/IRH-1P





#### Key Features

- Resolution 3 MPX
- D/N function IR cut filter
- Min. Illumination from 0.001 lx (0 lx, IR on)
- Auto iris DC lens, f=3 ~ 10 mm/F=1.2
- IR LED, range up to 40 m

#### Dimensions







#### Compatible

	NVIP-3DN3010H/IRH-1P
IMAGE	
Pick-up Element	3 MPX, CMOS imager, 1/2.8", progressive scan
Number of Effective Pixels	2048 (H) x 1536 (V)
Min. Illumination	0.3 lx/F=1.2 - color mode, 0.08 lx/F=1.2 - B/W mode, 0.001 lx/F=1.2 - B/W mode DSS, 0 lx (IR on)
S/N Ratio	> 50 dB (AGC off)
Digital Slow Shutter (DSS)	0.13 s ~ 1 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Туре	Auto iris DC, f=3 ~ 10 mm/F=1.2
Angle of View (H)	90° ~ 28°
DAY/NIGHT	
Type	Mechanical IR cut filter
Switching Mode	Auto/manual
NETWORK	
Stream Resolution	2048 x 1536 (QXGA), 1600 x 1200 (UXGA), 1920 x 1080 (FullHD), 1280 x 1024 (SXGA), 1280 x 960, 1280 x 720 (HD), 1024 x 768 (XGA), 640 x 480 (VGA), 320 x 240 (QVGA)
Frame Rate	15 fps for each resolution
Multistreaming Mode	3 streams
Video/Audio Compression	H.264, MPEG4, M-JPEG/G.711, μ-LAW
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, UDP, FTP, DHCP, NTP, RTSP, RTP, SMTP
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	б
Motion Detection	Yes
Prealarm/Postalarm	10 s/30 s
System Reaction to Alarm Events	E-mail, saving file on FTP server, output activation
IR LED	
Number	40
Range	40 m
Angle	90°
INTERFACES	
Video Output	1.0 Vp-p/75 Ohm (BNC) - maintenance only
Audio Input/Output	1 x RCA/1 x RCA
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
INSTALLATION PARAMETERS	
Dimensions (mm)	83 (W) × 82 (H) × 166 (L)
Weight	1.3 kg
Enclosure	Aluminium, white, mounting bracket with cable and sunshield in-set included
Power Supply	PoE+, 12 VDC
Power Consumption	2.5 W, 6 W (IR on),
	18 W (heater and IR on) -40°C ~ 50°C
Operating Temperature	
Operating Temperature Built-in Heater/Fan	Yes/Yes











#### **Key Features**

- Resolution 5 MPX
- D/N function IR cut filter
- Min. Illumination from 0.02 lx

• SD card support

#### Dimensions



#### **Related Products**



-	Lens not included
Compatible	
	NVIP-5DN5001C-1P
IMAGE	
Pick-up Element	5 MPX, CMOS imager, 1/2.5"
Number of Effective Pixels	2592 (H) x 1944 (V)
Min. Illumination	0.2 lx/F=1.2 - color mode DSS, 0.02 lx/F=1.2 - B/W mode DSS
S/N Ratio	> 50 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 0.67 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
COMPATIBLE LENSES	
Mount	C/CS
Iris Mode	D
DAY/NIGHT	

DAY/NIGHT				
Туре	Mechanical IR cut filter			
Switching Mode	Auto/manual/smart			
NETWORK				
Stream Resolution	2592 x 1944, 2048 x 1536 (QXGA), 1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)			
Frame Rate	10 fps for 2592 x 1944, 15 fps for 2048 x 1536, 25 fps for 1920 x 1080 and lower resolutions			
Multistreaming Mode	4 streams			
Video/Audio Compression	H.264, M-JPEG/G.711, G.726			
Number of Simultaneous Connections	Max. 8			
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS			
PC Software	NOVUS NMS, Internet Explorer			
OTHER FUNCTIONS				
OSD	IE browser, Polish, English, Russian and others			
Privacy Zones	5			
Motion Detection	Yes			
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s			
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server/SD card, output activation, HTTP notification			
INTERFACES				
Video Output	BNC, 1.0 Vp-p, 75 Ohm			
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)			
Alarm Input/Output	1/1			
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s			
Memory Card Slot	Yes			
INSTALLATION PARAMETERS				
Dimensions (mm)	75 (W) x 52 (H) x 125 (L)			
Weight	350 g			
Enclosure	Aluminium, white			
Power Supply	PoE, 12 VDC			
Power Consumption	4 W			
Operating Temperature	-10°C ~ 50°C			

Related products details are available on pages 67 and 69-72.

www.novuscctv.com





## Dome IP Camera with Fisheye Lens

5 m

MMS Compatible

NVIP-5DN2021D/IR-2P







#### Key Features

- Resolution 5 MPX
- D/N function IR cut filter
- $\bullet$  Min. Illumination from 0.02 lx (0 lx, IR on)
- Fisheye lens, f=1.05 mm/F=2.8
- IR LED, range up to 5 m
- SD card support







	NVIP-5DN2021D/IR-2P				
IMAGE					
Pick-up Element	5 MPX, CMOS imager, 1/2.5" (4:3 format), progressive scan				
Number of Effective Pixels	2592 (H) x 1944 (V)				
Min. Illumination	0.2 lx/F=2.8 - color mode DSS, 0.02 lx/F=2.8 - B/W mode DSS, 0 lx (IR on)				
S/N Ratio	> 50 dB (AGC off)				
Digital Slow Shutter (DSS)	0.04 s ~ 0.67 s				
Wide Dynamic Range (WDR)	Low/medium/high/off				
Digital Noise Reduction (DNR)	Yes				
LENS					
Туре	Fisheye lens, f=1.05 mm/F=2.8				
Angle of View (H)	180°				
DAY/NIGHT					
Туре	Mechanical IR cut filter				
Switching Mode	Auto/manual/light sensor/smart				
NETWORK					
Stream Resolution	2592 x 1944, 2048 x 1536 (2XGA), 1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF) 10 fps for 2592 x 1944,				
Frame Rate	15 fps for 2048 x 1536, 25 fps for 1920 x 1080 and lower resolutions				
Multistreaming Mode	4 streams				
Video/Audio Compression	H.264, M-JPEG/G.711, G.726				
Number of Simultaneous Connections	Max. 8				
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS				
PC Software	NOVUS NMS, Internet Explorer				
OTHER FUNCTIONS					
OSD	IE browser, Polish, English, Russian and others				
Privacy Zones	5				
Motion Detection	Yes				
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s				
System Reaction to Alarm Events	E-mail with attachment, saving file on: FTP server, SD card, output activation, HTTP notification				
IR LED					
Number	6				
Range	5 m				
INTERFACES					
Audio Input/Output	1 x Jack (3.5 mm)/1 x Jack (3.5 mm)*, built-in 2 W speaker, built-in microphone				
Alarm Input/Output	1/1				
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s				
Memory Card Slot	Yes				
INSTALLATION PARAMETERS					
Dimensions (mm)	149 (Ø) x 45.8 (H)				
Weight	350 g				
Enclosure	Plastic, white				
Power Supply	PoE, 12 VDC/24 VAC				
Power Consumption	12 W (IR on)				
Operating Temperature	-10°C ~ 50°C				

# \*Available with an optional cable





## Speed Dome IP Camera

NVIP-DN6137SD





#### Key Features

- Resolution 0.4 MPX
- D/N function IR cut filter
- Min. Illumination from 0.06 lx
- Motor-zoom lens with Al and AF function, 37x optical zoom, f=3.5  $\sim$  129.5 mm/F=1.6  $\sim$  3.9

#### Dimensions



#### **Related Products**





	NVIP-DN6137SD
IMAGE	
Pick-up Element	0.4 MPX, CCD imager, 1/4" SONY Super HAD
Number of Effective Pixels	720 (H) × 576 (V)
Min. Illumination	0.7 lx/F=1.6 - color mode, 0.06 lx/F=1.6 - B/W mode
S/N Ratio	> 50 dB (AGC off)
Digital Slow Shutter (DSS)	0.04 s ~ 5.12 s
Wide Dynamic Range (WDR)	Yes
Digital Noise Reduction (DNR)	Yes
LENS	
Zoom	37x optical
Туре	Motor-zoom with AI and AF function, f=3.5 ~ 129.5mm/F=1.6 ~ 3.9
Angle of View (H)	55.5° ~ 1.59°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto/manual
NETWORK	
Stream Resolution	720 x 576 (D1), 720 x 288 (2CIF), 352 x 288 (CIF)
Frame Rate	25 fps for each resolution
Multistreaming Mode	2 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 10
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer
PTZ	
Preset Commands	128
Tours	8 (max. 20 presets each)
Auto-Scans	8
Patterns	4 (up to 1200 commands)
Pan/Tilt Range	0° ~ 90°/360° (continuous)
Pan/Tilt Speed	360°/s (proportional to zoom)
Preset Speed	Up to 360%s
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	8
Motion Detection	Yes
Prealarm/Postalarm	1 s - 5 s/1 s - 5 s
System Reaction to Alarm Events	E-mail with attachment, saving file on FTP server, output activation, PTZ
INTERFACES	
Video Output	BNC, 1.0 V <sub>PP</sub> , 75 Ohm
Audio Input/Output	1 x RCA/1 x RCA
Alarm Input/Output	3/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
INSTALLATION PARAMETERS	
Dimensions (mm)	220 (Ø) x 196 (H), with mounting bracket: 310 (L) x 286 (H)
Weight	4.3 kg
Enclosure	Aluminium, white, mounting bracket and poly-carbonate bubble in-set included
Power Supply	12 VDC, 3 A
Power Consumption	36W
Operating Temperature	-30°C ~ 50°C
Built-in Heater/Fan	Yes/Yes
Degree of Protection	IP 67

Related products details are available on page 72.





## **Speed Dome IP Camera**

NVIP-2DN6020SD





#### **Key Features**

- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.005 lx
- Motor-zoom lens with Al and AF function, 20x optical zoom, f=4.7 ~ 94 mm/F=1.6 ~ 3.5

#### Dimensions



#### **Related Products**







	NVIP-2DN6020SD				
IMAGE					
Pick-up Element	2 MPX, CMOS imager, 1/3"				
Number of Effective Pixels	1920 (H) x 1080 (V)				
Min. Illumination	0.5 lx/F=1.6 - color mode DSS,				
S/N Ratio	0.005 lx/F=1.6 - B/W mode DSS > 50 dB (AGC off)				
	Auto/off				
Digital Slow Shutter (DSS)	Yes				
Wide Dynamic Range (WDR)	les				
Zoom	20x optical				
	Motor-zoom with Al and AF function, f=4.7 ~ 94 mm/F=1.6 ~ 3.5				
Type	55.2° ~ 2.9°				
Angle of View (H) DAY/NIGHT	55.2 ~ 2.9				
Type	Mechanical IR cut filter				
Switching Mode	Auto/manual				
NETWORK	1920 x 1080 (Full HD), 1680 x 1050 (WSXGA), 1600 x 900, 1440 x 900, 1280 x 960,				
Stream Resolution	1280 x 720 (HD 720p), 800 x 600 (SXGA), 720x576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)				
Frame Rate	30 fps				
Multistreaming Mode	2 streams				
Video/Audio Compression	H.264, M-JPEG/G.711, G.726				
Number of Simultaneous	Max. 10				
Connections	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS,				
Network Protocols Support	NTP, RTSP, RTP, UPnP, SNMP				
PC Software	NOVUS NMS, ALNET NET STATION, AXXON, Internet Explorer				
PTZ					
Preset Commands	128				
Tours	8 (max. 20 presets each)				
Auto-Scans	8				
Patterns	4 (up to 1200 commands)				
Pan/Tilt Range	0° ~ 90°/360° (continuous)				
Pan/Tilt Speed	0.05°/s				
Preset Speed	Up to 360°/s				
OTHER FUNCTIONS					
OSD	IE browser, Polish, English, Russian and others				
Privacy Zones	8				
Motion Detection	Yes				
Prealarm/Postalarm	1 s - 5 s/1 s - 5 s				
System Reaction to Alarm Events	E-mail with attachment, saving file on FTP server, output activation, PTZ				
INTERFACES					
Video Output	HD-SDI (uncompressed HD digital signal)				
Audio Input/Output	1 x RCA/1 x RCA				
Alarm Input/Output	2/2				
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s				
INSTALLATION PARAMETERS					
Dimensions (mm)	220 (Ø) x 196 (H), with mounting bracket: 310 (L) x 286 (H)				
Weight	4.3 kg				
Enclosure	Aluminium, white, mounting bracket and poly-carbonate bubble in-set included				
Power Supply	12 VDC, 3 A				
Power Consumption	36 W				
Operating Temperature	-30°C ~ 50°C				
Built-in Heater/Fan	Yes/Yes				
Degree of Protection	IP 67				

Related products details are available on page 72.





## Speed Dome IP Camera

NVIP-2DN6020SD-2P





#### Key Features

- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.01 lx
- Motor-zoom lens with Al and AF function, 20x optical zoom, f=4.7 ~ 94 mm/F=1.6 ~ 3.5
- Micro SD/SDHC card support

#### Dimensions



#### **Related Products**



NVB-SD62PA



NVB-SD62CA

NVB-SD62CB



	NVIP-2DN6020SD-2P
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) × 1080 (V)
Min. Illumination	0.05 kr/F=1.6 - color mode DSS,
S/N Ratio	0.01 lx/F=1.6 - B/W mode DSS > 50 dB (AGC off)
Digital Slow Shutter (DSS)	0.08 s~1 s
Wide Dynamic Range (WDR)	Ves
LENS	les
Zoom	20x optical
Туре	Motor-zoom with AI and AF function, f=4.7 ~ 94 mm/F=1.6 ~ 3.5
Angle of View (H)	52.3° ~ 4.1°
DAY/NIGHT	JZ.J ~ 4.1
Type	Mechanical IR cut filter
Switching Mode	Auto/manual
NETWORK	Automanual
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD 720p), 1024 x 768 (XGA), 800 x 600 (SVGA), 720 x 576 (D1), 640 x 480(VGA), 352 x 288 (CIF)
Frame Rate	30 fps
Multistreaming Mode	4 streams
Video/Audio Compression	H.264, M-JPEG/G.711, G.726
Number of Simultaneous Connections	Max. 5
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, Multicast, FTP, DHCP, DDNS, NTP, RTSP, RTP, UPnP, SNMP, QoS
PC Software	NOVUS NMS, Internet Explorer
PTZ	
Preset Commands	256
Tours	8 (max. 64 presets each)
Auto-Scans	4
Patterns	8 (max. 206 s)
Pan/Tilt Range	-10° ~ 190°/360° (continuous)
Pan/Tilt Speed	0.5 - 90°/s
Preset Speed	5 - 400°/s
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Privacy Zones	16
Motion Detection	Yes
Prealarm/Postalarm	20 frames or 3 s/20 frames or 9999 s
System Reaction to Alarm Events	E-mail with attachment, saving file on FTP server, saving file on micro SD/SDHC card, output activation, HTTP notification, PTZ
INTERFACES	output activation, THTP hothcation, FT2
Audio Input/Output	1/1
Alarm Input/Output	4/2
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	192 (Ø) x 282 (H), with mounting bracket: 254 (L) x 354 (H)
Weight	2.9 kg (with mounting bracket)
Enclosure	Plastic, white, mounting bracket and poly-carbonate bubble in-set included
Power Supply	PoE+*, 24 VAC
Power Consumption	50W
Operating Temperature	-40°C ~ 50°C
Built-in Heater/Fan	Yes/Yes (supported only with 24 VAC)
Degree of Protection	IP 66

Related products details are available on page 72.

\* Fan and/or heater are not supported with PoE+





## NMS Workstations



#### **Key Features**

- Registration up to 64 HD streams
- Megapixel streams support
- Up to 5 HDDs up to 10 TB in total for recordings
- External arrays support
- Up to 4 monitors support
- NMS software installed
- Compatible with all NOVUS IP products

#### Dimensions





#### MMS On board

#### NMS NVR3 NMS NVR 7 NMS NVR 5 Max. Number of Recorded Up to 64 Up to 64\* Up to 50\* HD Video Streams Max. Number of Recorded HD Frames Up to 1600 Up to 1600 Up to 1250 25 live or 16 played back 150 live\*\*or 16 live or 16 played back 4 live or 4 played back 50 live or Max. Number of Displayed HD Video Streams Max. Number of HD Video Streams 75 live or 16 played back Sent to NMS Client Station 16 played back 16 played back Windows 7 PRO 64bit Software Processor Intel i7 Intel i5 Intel i3 System HDD 500 GB Built-in HDD 3 x 2 TB 4 x 2 TR 2 x 2 TB Optional HDD (without DVD-RW) 1 x 2 TB 2 x 2 TB 3 x 2 TB External Arrays Support Yes, through interfaces: iSCSI, eSATA Built-in DVD-RW 1 x DVD-RW Network Card 2 x 1000 Mbit/s 2 x 1000 Mbit/s 2 x 1000 Mbit/s Monitor Output 2 (1 x DVI, 1 x VGA) 2 (1 x HDMI/DVI, 1 x VGA) with optional NMS GRAPHIC card Optional Monitor Output Power Supply Built-in PSU 230 VAC/600 W Enclosure Midi tower or optional RACK 19"4U 442 (H) x 205 (W) x 540 (D) - midi tower 180 (H) x 483 (W) x 508 (D) - RACK 19″4U Dimensions (mm)

\* An additional HDD/HDDs installation required to record max. number of streams presented in the table, because recommended number of HD video streams recorded on 1 HDD should not exceed 16

\*\*The third network card required

NOTE: Values refer to the NMS software ver. 1.20.

NOTE: The sample stream used for the above specification: HD 720p (1280x720@25FPS) 2Mbit/s. Values change depending on the stream.

#### Additional Elements

NMS HDD 2TB	HDD 2TB	Optional HDD for NMS NVR platforms. 2TB capacity
NMS RACK	RACK 4U	Optional 19"4U RACK case (instead of a standard midi tower)
NMS GRAPHIC	1 GB, 1 x HDMI, 1 x VGA, 1 x DVI	Optional graphic card required for 3- and 4-screen operation

Due to frequent parameter changes, the most recent information can be found on www.novuscctv.com





## **NMS Workstations** NMS CLIENT



#### **Key Features**

- Registration up to 64 HD streams
- Megapixel streams support
- Up to 4 monitors support
- NMS software installed
- Compatible with all NOVUS IP products

#### Dimensions



Max. Number of Received HD Video Streams	96
Max. Number of Displayed HD Video Streams	25 live or 16 played back
Software	Windows 7 PRO 64bit
Processor	Intel i7
System HDD	500 GB
Built-in DVD-RW	1 x DVD-RW
Network Card	1 × 1000 Mbit/s
Monitor Output	2 (1 x DVI, 1 x VGA)
Optional Monitor Output	2 (1 x HDMI/DVI, 1 x VGA) with optional NMS GRAPHIC card
Power Supply	Built-in PSU 230 VAC/600 W
Enclosure	Midi tower or optional RACK 19"4U
Dimensions (mm)	442 (H) x 205 (W) x 540 (D) - midi tower 180 (H) x 483 (W) x 508 (D) - RACK 19″4U

**MS CLIENT** 

NOTE: Values refer to the NMS software ver. 1.20. NOTE: The sample stream used for the above specification: HD 720p (1280x720@25FPS) 2Mbit/s. Values change depending on the stream.

#### Additional Elements

MMS On board

NMS RACK	RACK 4U	Optional 19" 4U RACK case (instead of a standard midi tower)			
NMS GRAPHIC	1 GB, 1 x HDMI, 1 x VGA, 1 x DVI	Optional graphic card required for 3- and 4-screen operation			

Due to frequent parameter changes, the most recent information can be found on www.novuscctv.com







## **NMS workstations**

The following table presents the performance of hardware platforms for exemplary variants of system operation. The comparison helps to choose the best workstation suited to individual needs.

The off er includes three server stations - NMS NVR and one client station - NMS CLIENT. Depending on the system structure and size (mainly the number and size of streams) it is necessary to use an appropriate workstation.

NMS software is installed on all workstations.

Maximum number of supported video streams									
	locally				sent to NMS CLIENT station				received from NMS NVR station
Platform	<b>recorded</b> (fps)	displayed (fps)	or	played back (fps)	live	with recordings (1x speed)	or	with recordings (4x speed)	live or with recordings
NMS NVR 3	50 (1250)*	4 (100)	or	4 (100)	0	0	or	0	0
Server	50 (1250)*	1 (25)	or	1 (25)	50	16	or	2	0
	64 (1600)*	16 (400)	or	16 (400)	0	0	or	0	0
	64 (1600)*	4 (100)	or	4 (100)	64	1	or	1	0
NMS NVR 5 Server	50 (1250)*	4 (100)	or	4 (100)	50	16	or	2	0
	25 (625)	4 (100)	or	4 (100)	75	16	or	4	0
	16 (400)	4 (100)	or	4 (100)	64	16	or	4	0
	64 (1600)	25 (625)	or	16 (400)	0	0	or	0	0
NMS NVR 7 Server	50 (1250)	4 (100)	or	4	64	16	or	4	0
	50 (1250)	4 (100)	or	4	128**	16	or	4	0
	0	4 (100)	or	0	150**	0	or	0	0
NMS CLIENT 7	0	25 (625)	or	16 (400)	0	0	or	0	96

\*To ensure proper operation of the system while recording, do not record more than 16 streams per HDD. Some configurations require installation of additional HDDs into NWS NVR platforms \*\*An additional network card required

#### Hardware platform adapted to recording streams from cameras, displaying them locally and sending to client stations

NMS NVR 3	Processor i3, 1HDD 500G + 2HDDx2TB,	<ul> <li>Recording of up to 50 streams in HD resolution</li> <li>Sending to the NMS CLIENT station of up to 50 streams in live mode</li></ul>
Server	DVD, 2xGbit Ethernet,	or up to 16 streams in playback mode
NMS NVR 5	Processor i5, 1HDD 500G + 3HDDx2TB,	<ul> <li>Recording of up to 64 streams in HD resolution</li> <li>Sending to the NMS CLIENT station of up to 75 streams in live mode</li></ul>
Server	DVD, 2xGbit Ethernet	or up to 16 streams in playback mode
NMS NVR 7	Processor i7, 1HDD 500G + 4HDDx2TB,	<ul> <li>Recording of up to 64 streams in HD resolution</li> <li>Sending to the NMS CLIENT station of up to 150 streams in live mode</li></ul>
Server	DVD, 2xGbit Ethernet	or up to 16 streams in playback mode

Installation of up to 6 HDDs (excluding DVD)

#### Hardware platform adapted to receiving and displaying streams from server stations

NMS CLIENT 7	Processor i7, 1HDD 500G, DVD, 1xGbit Ethernet	<ul> <li>Receiving of up to 96 streams, displaying of up to 25 streams in live mode or playback of up to 16 streams with recordings</li> </ul>
	TAUDIL LUTETTEL	of playback of up to to streams with recordings

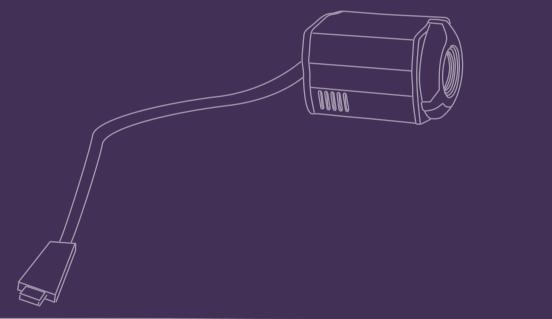
#### Additional elements of NMS NVR and NMS CLIENT workstations

NMS HDD 2TB	HDD 2TB	Optional HDD for NMS NVR platforms. 2TB capacity
NMS RACK	RACK 4U	Optional 19"4U RACK case (instead of a standard midi tower)
NMS GRAPHIC	Graphic card. 1GB. 1xHDMI, 1xVGA, 1xDVI	Optional graphic card required for 3- and 4-screen operation

NOTE: The sample stream used for the above specification: HD 720p (1280x720@25FPS) 2Mbit/s. Values change depending on the stream. NOTE: Values refer to the NMS software ver. 1.20.

#### Due to frequent parameter changes, the most recent information can be found on www.novuscctv.com

# ipGO DEVICES CAMERAS NETWORK VIDEO RECORDERS



(	$\supset$	







## Still not convinced to IP technology? This system will change your way of thinking about network devices!

» No problems with camera connection «

100% satisfaction with excellent image quality

## **Experience ipGO now!**



STANDALONE



PLUG & PLAY



Full HD



MOBILE VIEWING





MODERN DESIGN







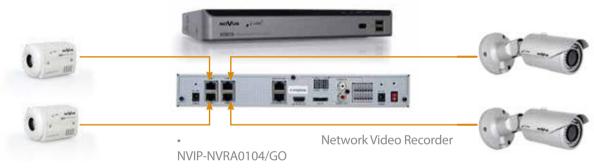
Standalone IP system

To build a complete ipGO monitoring system you need network video recorder (NVIP-NVRA0104/GO or NVIP-NVRA0208/GO) and cameras (NVIP-2C2001D-P/GO and/or NVIP-2C5005CZ-P/GO).

ipGO is a standalone system, does not require an additional computer or other devices. You only need a monitor with HDMI port for viewing images from the cameras. In this respect, ipGO is similar to analog systems.

## Build your own ipGO system!

1 - 4 camera system



Classic cameras NVIP-2C5005CZ-P/GO

• Bullet cameras NVIP-2DN3001H/IRH-2P/GO

#### 1 - 8 camera system



Dome cameras NVIP-2DN2001D/IR-2P/GO

Dome cameras NVIP-2C2001D-P/GO





0 W

0 W

ow ow



#### Plug & Play standard, automatic system configuration

ipGO cameras and network video recorders are very different from IP devices offered by now. ipGO is a Plug&Play system - a few clicks and it operates. Installation is very easy and does not take longer than installation of analog system.

Connect the camera to an appropriate port in the NVR and it will be automatically activated (powered) and configured, than on the screen displays information about adding camera to the system. ipGO cameras do not require additional configuration, thus there is no complicated process of searching cameras and assigned them a unique network addresses, as in the case of traditional IP systems.

### Easy as 1... 2... 3... Just plug the system and it works!



**Connect the camera** 



...to an appropriate port in the network video recorder...



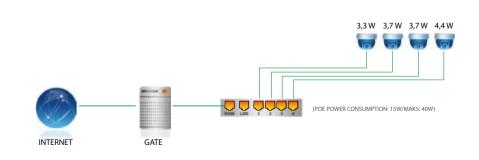
... and the system is ready for operation!

INTERNET GATE

3,3 W 3,7 W 3,7 W 4,4 W

Information displays on the screen about system status - connecting cameras

Information displays on the screen about system status - cameras not connected



Information displays on the screen about system status - cameras connected

- - - - - - CONNECTING

www.novuscctv.com







#### Amazing Full HD image quality

ipGO system provides Full HD resolution image. Network video recorders are equipped with HDMI output to connect a monitor or TV. HDMI monitor output operates in Full HD mode (1920 x 1080 pixels), so image generated by 2 MPX cameras is clear and very detailed.

One of the biggest disadvantages of analog systems is difficulty in recognizing details of an observed scene, such as facial features and clothing items. Choosing an IP system you can be sure that every detail is clearly visible on recordings and at the same time, an image is smooth and colours are accurately reproduced.



Standard analog camera



ipGO camera

#### NVIP-2C5005CZ-P/GO camera is also equipped with a motor-zoom lens x5



ipGO camera NVIP-2C5005CZ-P/GO 5x zoom







#### Smartphones support (iPhone, Android)

Remote access to the cameras via mobile devices is a very important element of surveillance system. You can always check what is going on in a monitored object.

nViewer application, available on App Store and Google Play, allows live monitoring and playback of recorded material on your smartphone (iPhone, Android).





**User friendly OSD** 

ipGO system is easy to install, but it is also easy to manage. ipGO NVRs operate in much the same way as conventional DVRs, offer similar functions and multi-level menu, displayed on the screen and used for system management. User friendly OSD allows you to manage the system without specialist IP knowledge.



Log list - list of recent events

Display panel - display settings, navigation tools settings, descriptions configuration







Alarm inputs - configuration of system reaction on alarm events

Recording panel -auto/manual mode

Menu allows you to configure camera settings, such as image parameters, motion detection.



Menu - management of recordings

Image settings - individual settings of brightness, contrast, colour for each camera and change the advanced settings

You can manage the system and use all it functions through dedicated software ipGO Manager.







Live monitoring

View from the selected camera





#### Selected features:

- Simultaneous connection with multiple network video recorders in live monitoring mode
- Remote playback advanced searching features (date/time, calendar, events, images review)
- Multi screen operation
- Display of up to 64 cameras on each monitor
- Arrangement of cameras adapted to widescreen monitors
- Remote copying of recordings into AVI format
- Digital zoom available in live monitoring and playback modes
- Multiple user accounts with different privileges
- Remote management of alarms
- PTZ control
- Multi-lingual OSD



Modern design and compact size

More often, apart from system functionality, customers attach great importance to devices exterior. Customers prefer discreet cameras, which suited well to design of any room. Small size of ipGO devices and modern look guarantee, that they meet the needs of the most demanding customers.

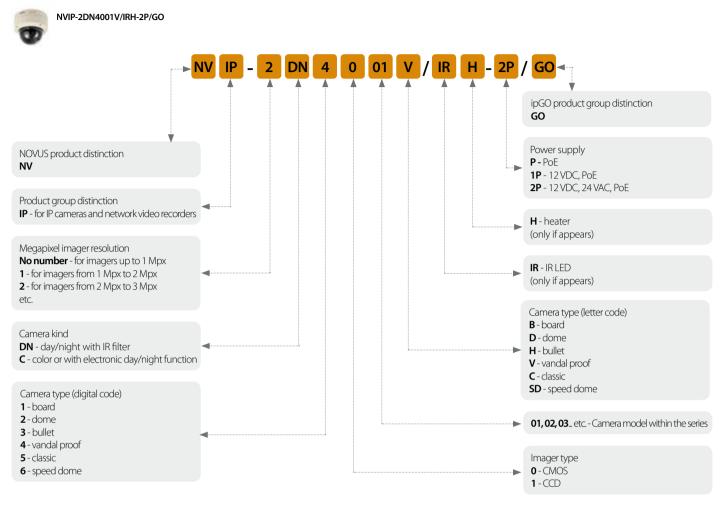




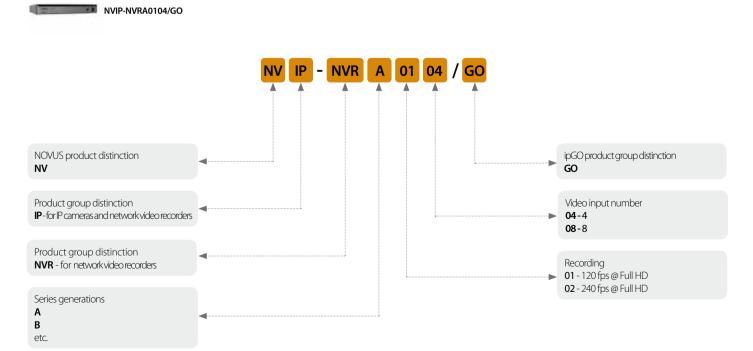




## ipGO Cameras nomenclature



## ipGO Network Video Recorders nomenclature







## Features and functions of ipGO devices

#### Day/night function

Day/night function allows the camera to be switched from color mode into black/white mode in low light conditions.



Electronic D/N function off

Electronic D/N function on

#### **Electronic day/night function**

The operation of electronic day/night function is to cut out a color component from the video signal, so that in low light conditions there is no camera "snow" effect. It has an important impact on the size of recording data in DVRs using H.264 or MPEG-4 compression.

Supported in ipGO cameras

#### **Mechanical IR cut filter**

This function significates that the IR filter is mechanically removed in low light conditions, that is why the imager receives more light from the infrared range and the camera's sensitivity significantly increases.

Electronic D/N function on

Mechanical IR cut filter on

Supported in ipGO cameras

#### **PoE (Power over Ethernet)**

PoE technology enables transmission of the electrical power via twisted-pair, ex. in IP cameras. Thanks to this feature, the camera installation is easy and fast, because data and power supply are transmitted via one cable and an installer does not have to work at 230V.

Supported in ipGO cameras

#### Resolution

• Full HD (Full High Definition) - video signal resolution of 1920 x 1080 pixels in 16:9 format (HD 1080)

Supported in ipGO cameras

- HD (High Definition) video signal resolution of 1280 x 720 pixels in 16:9 format (HD 720) Supported in ipGO cameras
- SD (Standard Definition) video signal resolution of 720 x 576 pixels in 4:3 format (PAL)

Supported in ipGO cameras





Full HD resolution (1920 x 1080)



HD resolution (1280 x 720)







SD resolution (720 x 576)







#### **Motion Detection**

This function enables detecting movement in user-defined areas of a scene, and then - depending on the model automatically activates alarm outputs or displays an appropriate message on the screen.

Supported in ipGO cameras



#### **DSS - Digital Slow Shutter**

This function helps to obtain better, brighter images in low light conditions. Longer imager exposure (from 1/50 s to 20 s) causes the image to be less frequently read. A side effect of the DSS is smearing for fast moving objects.

Supported in ipGO cameras



DSS on



Standard dome camera

NOVUS<sup>®</sup> vandal proof camera

#### Vandal proof enclosure

A camera body made of aluminium alloy along with transparent poly - carbonate bubble guarantee high mechanical resistance, confirmed by a relevant certificate. For example, G Series cameras vandal proof enclosures represent the highest 10th level of mechanical resistance on IK scale.

Supported in ipGO cameras

#### Degree of protection IP65, IP66, IP67

- IP 65 completely dust proof housing, resistant to water jets from any direction
- IP 66 completely dust proof housing, resistant to strong water jets from all directions or wave flooding
- IP 67 completely dust proof housing, resistant to immersion to a depth of 1 m for 30 min.

#### Supported in ipGO cameras



Camera image 2:00 pm

Camera image 3:00 pm



This function facilitate video search. Images from selected camera are displayed on the screen at fixed intervals, eg. from the whole day, whole hour. This allows you to quickly find requested event, eg. locate a car that left a car park.

Supported in ipGO network video recorders



#### **Convenient HDD installation**

Thanks to a special stand, when you mount the hard drive you don't need to remove the cover from the NVR. You just have to slide out the stand located at the bottom of the NVR, screw the drive and slide it back into place. Mounted HDD is ready to use and do you don't need to connect any additional wires.

Supported in ipGO network video recorders



## ipGO Cameras Comparison

	NVIP- 2C2001D-P/GO	NVIP- 2C5005CZ-P/GO	NVIP- 2DN2001D/IR-2P/GO	NVIP- 2DN3001H/IRH-2P/GO	NVIP- 2DN4001V/IRH-2P/GO
	Full HD	Full HD	Tull HD	FullHD	FullHD
Page	59	60	61	62	63
Pick-up Element			1/2.8" CMOS		
Imager Resolution			2 MPX (1920 x 1080)		
Day/Night Function	elect	ronic		IR cut filter	
Min. Illumination	0.63 lx/F=2.0 - color, 0.63 lx/F=2.0 - B/W	0.63 lx/F=3.5 - color, 0.63 lx/F=3.5 - B/W	0.16 lx/F=1.2 - color, 0.07 lx/F=1.2 - B/W, 0 lx/F=1.2 - B/W (IR on)	0.16 lx/F=1.2 - color, 0.07 lx/F=1.2 - B/W, 0 lx/F=1.2 - B/W (IR on)	0.16 lx/F=1.2 - color, 0.07 lx/F=1.2 - B/W, 0 lx/F=1.2 - B/W (IR on)
Digital Slow Shutter (DSS)			x2		, ,
Defective Pixel Correction (DPC)			yes		
Video Compression			H.264, M-JPEG		
Frame Rate			30 fps for each resolution		
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	1920 × 1080 (Full HD), 1280 × 1024 (SXGA), 1280 × 720 (HD), 1024 × 768 (XGA), 720 × 576 (D1), 640 × 480 (VGA), 352 × 288 (CIF)	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Multistreaming Mode			2 streams		
Audio I/O		-		1/1	
Audio Compression		-		G.711	
Lens	f=2.1 mm	f=5 ~25 mm		f=3 ~ 9 mm	
Optical zoom	-	5x		Зx	
IR LED		-	18 LED, 10 m range	42 LED, 30 m range	18 LED, 10 m range
Alarm I/O		-		1/1	
Motion Detection			yes		
E-mail Event Notification			yes		
Video Output	BNC, 1.0 Vp	-p, 75 Ohm		BNC, 1.0 Vp-p, 75 Ohm (service)	
Power Supply	PoE	PoE	PoE, 12 VDC/24 VAC	PoE, 24 VAC	PoE, 12 VDC/24 VAC
Degree of Protection		-		IP6	6
Operating Temperature	-10°C ~ 50°C	0°C ~	- 40°C	-40°C ~	- 50°C
Built-in Heater/Fan		-/-		Yes*/Yes	Yes*/-
Dimensions (mm)	110 (Ø) x 67.5 (H)	50.6 (W) x 47.4 (H) x 62.8 (L)	1125 (Ø) x 113 (H)	145 (Ø) x 335 (L)	1145 (Ø) x 116 (H)
Compatible Software			NOVUS NMS		
Compatible Network Video Recorders		NVIP	-NVRA0104/GO, NVIP-NVRA020	8/GO	

\*Fan and/or heater are not supported with PoE













#### **Key Features**

- Camera resolution 2 MPX (FULL HD)
- D/N function electronic
- Min. Illumination 0.63 lx
- Standard lens, f=2.1 mm/F=2.0, wide viewing angle 128°
- Defective Pixel Correction (DPC)

#### Dimensions



110 mm (Ø)



	NVIP-2C2001D-P/GO	
IMAGE		
Pick-up Element	3 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan	
Number of Effective Pixels	2096 (H) x 1561 (V)	
Min. Illumination	0.63 lx/F=2.0 - color mode, 0.63 lx/F=2.0 - B/W mode	
S/N Ratio	> 50 dB (AGC off)	
Digital Slow Shutter (DSS)	x2	
Digital Noise Reduction (DNR)	Yes	
Defective Pixel Correction (DPC)	Yes	
LENS		
Туре	Standard, f=2.1 mm/F=2.0	
Angle of View (H)	128°	
DAY/NIGHT		
Туре	Electronic D/N function	
Switching Mode	Auto	
NETWORK		
Stream Resolution	1920 x 1080 (FullHD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	
Frame Rate	30 fps for each resolution	
Multistreaming Mode	2 streams	
Video Compression	H.264, M-JPEG	
Network Protocols Support	HTTP, TCP/IP, IPv4, UDP, FTP, DHCP, NTP, RTSP, RTP, UPnP	
PC Software	NOVUS NMS, Internet Explorer	
OTHER FUNCTIONS		
OSD	IE browser, Polish, English and others	
Motion Detection	Yes	
System Reaction to Alarm Events	E-mail with attachment, saving file on FTP server	
NTP	Synchronization with selected server	
INTERFACES		
Audio Input	1 x Ethernet - RJ-45 interface, 10/100 Mbit/sBNC, 1.0 Vp-p, 75 Ohm	
Network Interface	1 x Ethernet - złącze RJ-45, 10/100 Mbit/s	
INSTALLATION PARAMETERS		
Dimensions (mm)	110 (Ø) x 67.5 (H)	
Weight	360 g	
Enclosure	Metal, white	
Power Supply	PoE	
Power Consumption	3.3 W	
Operating Temperature	-10°C ~ 50°C	



Classic IP Camera NVIP-2C5005CZ-P/GO



NOVUS

11111



#### **Key Features**

- Camera resolution 2 MPX (FULL HD)
- D/N function electronic
- Min. Illumination 0.63 lx
- Motor-zoom lens x5 with Al and AF function, f=5 ~ 25 mm/F=3.5 ~ 3.7
- Defective Pixel Correction (DPC)

#### Dimensions







	NVIP-2C5005CZ-P/GO
IMAGE	
Pick-up Element	3 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan
Number of Effective Pixels	2096 (H) x 1561 (V)
Min. Illumination	0.63 lx/F=3.5 - color mode, 0.63 lx/F=3.5 - B/W mode
S/N Ratio	> 50 dB (AGC off)
Digital Slow Shutter (DSS)	x2
Digital Noise Reduction (DNR)	Yes
Defective Pixel Correction (DPC)	Yes
LENS	
Туре	Motor-zoom lens x5 with AI and AF function, f=5 $\sim$ 25 mm/F=3.5 $\sim$ 3.7
Angle of View (H)	52° ~ 11°
DAY/NIGHT	
Туре	Electronic D/N function
Switching Mode	Auto
NETWORK	
Stream Resolution	1920 x 1080 (FullHD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 1024 x 768 (XGA), 720 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	2 streams
Video Compression	H.264, M-JPEG
Network Protocols Support	HTTP, TCP/IP, IPv4, UDP, FTP, DHCP, NTP, RTSP, RTP, UPnP
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English and others
Motion Detection	Yes
System Reaction to Alarm Events	E-mail with attachment, saving file on FTP server
NTP	Synchronization with selected server
INTERFACES	
Audio Input	BNC, 1.0 Vp-p, 75 Ohm
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
INSTALLATION PARAMETERS	
Dimensions (mm)	50.6 (W) x 47.4 (H) x 62.8 (L)
Weight	160 g
Enclosure	Metal, white
Power Supply	PoE
Power Consumption	5.7 W
Operating Temperature	0°C ~ 40°C





## Dome IP Camera

NVIP-2DN2001D/IR-2P/GO







#### **Key Features**

- Camera resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.07 lx (0 lx, IR on)
- Lens with remote focal and focus control, optical zoom 3x, f=3  $\sim$  9 mm/F=1.2  $\sim$  2.1
- IR LED, range up to 10 m
- Defective Pixel Correction (DPC)

#### Dimensions



125 mm (Ø)



	NVIP-2DN2001D/IR-2P/GO
IMAGE	
Pick-up Element	2.0 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) x 1080 (V)
Min. Illumination	0.16 lx/F=1.2 - color mode, 0.07 lx/F=1.2 - B/W mode, 0 lx/F=1.2 - B/W mode (IR on)
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	x8
Digital Noise Reduction (DNR)	Yes
Defective Pixel Correction (DPC)	Yes
LENS	
Туре	With remote focal and focus control, optical zoom 3x, f=3 $\sim$ 9 mm/F=1.2 $\sim$ 2.1
Angle of View (H)	100° ~ 35°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto (light sensor)/manual
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	2 streams
Video/Audio Compression	H.264, M-JPEG/G.711

Compatible

Multistreaming Mode	2 streams	
Video/Audio Compression	H.264, M-JPEG/G.711	
Network Protocols Support	HTTP, TCP/IP, IPv4, UDP, Multicast, FTP, DHCP, NTP, RTSP, RTP, UPnP, SNMP	
PC Software	NOVUS NMS, Internet Explorer	
OTHER FUNCTIONS		
OSD	IE browser, Polish, English, Russian and others	
Motion Detection	Yes	
System Reaction to Alarm Events	E-mail with attachment (jpg), saving file on FTP server (jpg), output activation	
IR LED		
Number	18	
Range	10 m	
Angle	38	
INTERFACES		
Video Output	BNC, 1.0 Vp p, 75 Ohm (installation mode)	
Audio Input/Output	1/1	
Alarm Input/Output	1/1	
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s	
INSTALLATION PARAMETERS		
Dimensions (mm)	125 (Ø) x 113 (H)	
Weight	400 g	
Enclosure	Plastic, white	
Power Supply	PoE, 12 VDC/24 VAC	
Power Consumption	8 W	
Operating Temperature	0°C ~ 40°C	





## Bullet IP Camera

NVIP-2DN3001H/IRH-2P/GO









- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.07 lx (0 lx, IR on)
- Lens with remote focal and focus control, optical zoom 3x, f=3 ~ 9 mm/F=1.2 ~ 2.1
  IR LED, range up to 30 m
- Defective Pixel Correction (DPC)
- SD card support

#### Dimensions



## 

	NVIP-2DN3001H/IRH-2P/GO
IMAGE	
Pick-up Element	2 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan
Number of Effective Pixels	1920 (H) × 1080 (V)
Min. Illumination	0.16 lx/F=1.2 - color mode, 0.07 lx/F=1.2 - B/W mode, 0 lx/F=1.2 - B/W mode (IR on)
S/N Ratio	> 60 dB (AGC off)
Digital Slow Shutter (DSS)	x8
Digital Noise Reduction (DNR)	Yes
Defective Pixel Correction (DPC)	Yes
LENS	
Туре	Lens with remote focal and focus control, optical zoom $3x$ , f=3 ~ 9 mm/F=1.2 ~ 2.1
Angle of View (H)	100° ~ 35°
DAY/NIGHT	
Туре	Mechanical IR cut filter
Switching Mode	Auto (light sensor)/manual
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)
Frame Rate	30 fps for each resolution
Multistreaming Mode	2 streams
Video/Audio Compression	H.264, M-JPEG/G.711
Network Protocols Support	HTTP, TCP/IP, IPv4, UDP, Multicast, FTP, DHCP, NTP, RTSP, RTP, UPnP, SNMP
PC Software	NOVUS NMS, Internet Explorer
OTHER FUNCTIONS	
OSD	IE browser, Polish, English, Russian and others
Motion Detection	Yes
System Reaction to Alarm Events	E-mail with attachment (jpg), saving file on: FTP server (jpg), SD card, output activation
IR LED	
Number	42
Range	30 m
Angle	38
INTERFACES	
Video Output	BNC, 1.0 Vp p, 75 Ohm (installation mode)
Audio Input/Output	1/1
Alarm Input/Output	1/1
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	Yes
INSTALLATION PARAMETERS	
Dimensions (mm)	145 (Ø) x 335 (L)
Weight	2 kg
Enclosure	Aluminium, silver, mounting bracket and sunshield in-set included
Power Supply	PoE, 24 VAC
Power Consumption	9 W/17 W (IR, fan & heater on)
Operating Temperature	-40°C ~ 50°C
Built-in Heater/Fan	Yes (supported only with 12VDC/24VAC)/Yes
Degree of Protection	IP66





## Vandal Proof IP Camera

NVIP-2DN4001V/IRH-2P/GO









- Resolution 2 MPX (FULL HD)
- D/N function IR cut filter
- Min. Illumination from 0.07 lx (0 lx, IR on)
- Lens with remote focal and focus control, optical zoom 3x, f=3 ~ 9 mm/F=1.2 ~ 2.1
- IR LED, range up to 10 m
- Defective Pixel Correction (DPC)

#### Dimensions



145 mm (Ø)



### Compatible

	NVIP-2DN4001V/IR-2P/GO	
IMAGE		
Pick-up Element	2 MPX, CMOS imager, 1/2.8" (16:9 format), progressive scan	
Number of Effective Pixels	1920 (H) × 1080 (V)	
Min. Illumination	0.16 lx/F=1.2 - color mode 0.07 lx/F=1.2 - B/W mode, 0 lx/F=1.2 - B/W mode (IR on)	
S/N Ratio	> 60 dB (AGC off)	
Digital Slow Shutter (DSS)	x8	
Digital Noise Reduction (DNR)	Yes	
Defective Pixel Correction (DPC)	Yes	
LENS		
Type Lens with remote focal and focus control, optical zoom 3x, f=3 ~ 9 mm/F=1.2 ~ 2.1		
Angle of View (H)	100° ~ 35°	
DAY/NIGHT		
Туре	Mechanical IR cut filter	
Switching Mode	Auto (light sensor)/manual	
NETWORK		
Stream Resolution	1920 x 1080 (Full HD), 1280 x 1024 (SXGA), 1280 x 720 (HD), 704 x 576 (D1), 640 x 480 (VGA), 352 x 288 (CIF)	
Frame Rate	30 fps for each resolution	
Multistreaming Mode	2 streams	
Video/Audio Compression	H.264, M-JPEG/G.711	
Network Protocols Support	HTTP, TCP/IP, IPv4, UDP, Multicast, FTP, DHCP, NTP, RTSP, RTP, UPnP, SNMP	
PC Software	NOVUS NMS, Internet Explorer	
OTHER FUNCTIONS		
OSD	IE browser, Polish, English, Russian and others	
Motion Detection	Yes	
System Reaction to Alarm Events	E-mail with attachment (jpg), saving file on FTP (jpg), output activation	
IR LED		
Number	18	
Range	10 m	
Angle	38	
INTERFACES		
Video Output	BNC, 1.0 Vp p, 75 Ohm (installation mode)	
Audio Input/Output	1/1	
Alarm Input/Output	1/1	
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s	
INSTALLATION PARAMETERS		
Dimensions (mm)	145 (Ø) x 116 (H)	
Weight	1.1 kg	
Enclosure	Vandal proof, aluminium, white, poly-carbonate bubble	
Power Supply	PoE, 12 VDC/24 VAC	
Power Consumption	8 W/13 W (IR & heater on)	
Operating Temperature	-40°C ~ 50°C	
Built-in Heater	Yes (supported only with 12 VDC/24 VAC)	
Degree of Protection	IP66	





## **Network Video Recorder**

NVIP-NVRA0104/GO





#### Key Features

- 4 video channels for network cameras
- Plug & Play configuration
- Recording and playback speed up to 120 fps in Full HD
- Up to 2 HDDs inside
- 1 monitor output (Main)

#### Dimensions



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	NVIP-NVRA0104/GO
VIDEO	
Input	4 x Ethernet - RJ-45, PoE
Monitor Output	Main: 1 x HDMI (1920 x 1080, 60p)
RECORDING	Main: 1 X 12 M (1920 X 1000, 00p)
Compression	H.264
Speed	120 fps (1920 x 1080)
Mode	Time-lapse, Event (Alarm, Motion detection), Panic
Schedule	Individual settings for: each day, each week, each camera, possibility of combining individual recording modes
Prealarm/Postalarm	0 s - 5 s/5 s - 180 s
PLAYBACK	
Speed	Up to 120 fps in Full HD (30 fps per channel)
Recorded Data Search	By date/time, connected with: events, images
BACKUP	
Methods	USB port (HDD or Flash memory),FTP server, network
File Format	AVI, RAW
STORAGE	
Internal HDD	Up to 2 HDD 3,5" SATA
Total Capacity	4 TB
USB	2 x USB 2.0
ALARM	
Input/Output	2/1 relay
Motion Detection	12x8 grid, individual sensitivity settings (for each camera)
NETWORK	
Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
PC Software/Smartphone	ipGO Manager, Internet Explorer, nViewer
Number of Connections with DVR	5
E-mail	Alarm and system events notification
PTZ	
Functions	Zoom, sharpness
OPERATING SYSTEM	
Operation Mode	Triplex
OSD	Polish, English and others
Control	IR remote controller (in-set included), PC mouse (in-set included), network
System Diagnostic	Automatic control of HDDs, temperature, fan, protection against network attacks
INSTALLATION PARAMETERS	
Dimensions (mm)	305 (W) x 44 (H) x 298 (D)
Weight	4 kg (without HDDs)
Power Supply	12 VDC to the DVR (100 ~ 240 VAC/12 VDC PSU in-set included), 48 VDC to the cameras (100 ~ 240 VAC/48 VDC PSU in-set included)
Power Consumption	90 W (with 2 HDDs and 4 cameras)
Operating Temperature	0°C ~ 40°C





## **Network Video Recorder**

NVIP-NVRA0208/GO





#### Key Features

- 8 video channels for network cameras
- Plug & Play configuration
- Recording and playback speed up to 240 fps in Full HD
- Up to 2 HDDs inside
- 1 monitor output (Main)

#### Dimensions



	NOVUS	
2. ·	CHES	
	C203	

	NVIP- NVRA0208/GO
VIDEO	
Input	8 x Ethernet - RJ-45, PoE
Monitor Output	Main: 1 x HDMI (1920x1080, 60p)
RECORDING	
Compression	H.264
Speed	240 fps (1920 x 1080)
Mode	Time-lapse, Event (Alarm, Motion detection), Panic
Schedule	Individual settings for: each day, each week, each camera, possibility of combining individual recording modes
Prealarm/Postalarm	0 s - 5 s/5 s - 180 s
PLAYBACK	
Speed	Up to 240 fps in Full HD (30 fps per channel)
Recorded Data Search	By date/time, connected with: events, images
BACKUP	
Methods	USB port (HDD or Flash memory),FTP server, network
File Format	AVI, RAW
STORAGE	
Internal HDD	Up to 2 HDD 3,5" SATA
Total Capacity	4 TB
USB	2 x USB 2.0
ALARMY	
Input/Output	2/1 relay
Motion Detection	12x8 grid, individual sensitivity settings (for each camera)
NETWORK	
Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
PC Software/Smartphone	ipGO Manager, Internet Explorer/nViewer
Number of Connections with DVR	5
E-mail	Alarm and system events notification
PTZ	
Functions	Zoom, sharpness
OPERATING SYSTEM	
Operation Mode	Triplex
OSD	Polish, English and others
Control	IR remote controller (in-set included), PC mouse (in-set included), network
System Diagnostic	Automatic control of HDDs, temperature, fan, protection against network attacks
INSTALLATION PARAMETERS	
Dimensions (mm)	305 (W) x 44 (H) x 298 (D)
Weight	4 kg (without HDDs)
Power Supply	12 VDC to the DVR (100 ~ 240 VAC/12 VDC PSU in-set included), 48 VDC to the cameras (100 ~ 240 VAC/48 VDC PSU in-set included)
Power Consumption	90 W (with 2 HDDs and 4 cameras)
Operating Temperature	0°C ~ 40°C



LENSES





## Lenses for Megapixel Cameras

NVL-MP246D, NVL-MP246M, NVL-MP408M/IR, NVL-MP4012M/IR, NVL-3MP4012D/IR





#### **Key Features**

- Glass-made optics
- Adapted to IR operation (IR models)

	NVL- MP246D	NVL- MP246M	NVL- MP408M/IR	NVL- MP4012M/IR	NVL- 3MP4012D/IR
CCD Format Size	1/	(3″		1/2″	
Focal Length	2.4 ~	6 mm	4 ~ 8 mm	4~1	2 mm
Iris Operation	Auto, D		Manual		Auto, D
Relative Aperture	F=1.2-360	F=1.2-C	F=1	.4-C	F=1.4-360
Mount Type		CS			
Angle of View (H)	105.8° ~ 4 81.3° ~ 34	46° (1/3″), 4.7° (1/4″)	90.9° ~ 47° (1/2"), 67.3° ~ 35.2° (1/3")	92° ~ 31.3° (1/2"), 68.1° ~ 23.5° (1/3")	95.75° ~ 31.97° (1/2'), 68.53° ~ 23.95° (1/3')
Dimensions (mm)	58.5 (W) x 41 (H) x 50.9 (L)	58.5 (W) x 41 (H) x 43.2 (L)	36 (Ø) x 46.8 (W)	39.5 (Ø) x 58 (W)	64.2 (W) x 46 (H) x37.6 (L)
Weight	127 g	152 g	90 g	125 g	110 g

#### Dimensions



58.5 mm

.

-



50.9 mm

41 mm

NVL-MP4012M/IR







58 mm

39.5 Ø





58.5 Ø

41 mm



NVL-MP408M/IR

46.8 mm

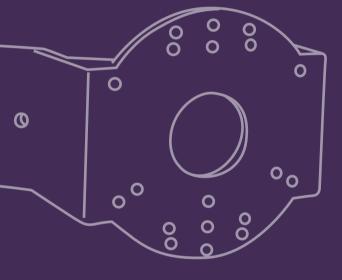


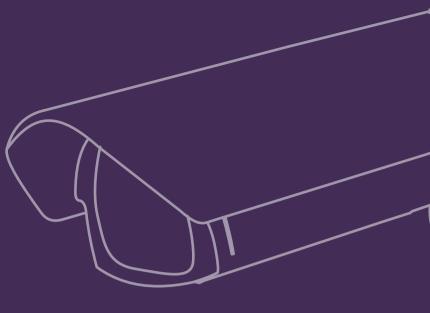
NVL-3MP4020D/IR



37.6 Ø

## HOUSINGS BRACKETS ADAPTERS









## **Classic Camera Housings**



	NVH-100H	NVH-150H	
Туре	Outdoor camera housing	Outdoor camera housing	
Application	Classic cameras	Classic cameras	
Material	Aluminium	Aluminium	
Color	Beige	Beige	
Heater	Yes	Yes	
Sun Protection	Sunshield	Sunshield	
Degree of Protection	IP 66	IP 66	
Power Supply	12 VDC/24 VAC, 230 VAC	12 VDC/24 VAC, 230 VAC	
Power Consumption*	~ 5 W	~ 5 W	
Operating Temperature	-30°C ~ 50°C -30°C ~		
External Dimensions (mm)	113 (W) x 106 (H) x 410 (L)	140 (W) x 112 (H) x 400 (L)	
Camera Mount Dimensions (mm)	76 (W) x 72 (H) x 260 (L)	100 (W) x 75 (H) x 240 (L)	
Weight	1.25 kg	1.4 kg	
In-set Included	Main body, L-wrench, Main body, mounting screws mounting screws		



Due to the nonlinear characteristics of the heating element, depending on temperature, value in the table is approximate only. In addition, it should be taken into account that temporary power consumption during the heater start-up may be even several times higher.



## **Classic Camera Housings**



\*Due to the nonlinear characteristics of the heating element, depending on temperature, value in the table is approximate only. In addition, it should be taken into account that temporary power consumption during the heater start-up may be even several times higher.



## **Classic Camera Housings**

	NON	
	NVH-250H-II	NVH-300H
Туре	Outdoor camera housing	Outdoor camera housing
Application	Classic cameras	Classic cameras
Material	Aluminium	Aluminium
Color	White	White
Heater Sun Protection	Yes Shade	Yes Sunshield
Degree of Protection	IP 67	IP 67
Power Supply	12 VDC/24 VAC, 230 VAC	12 VDC/24 VAC, 230 VAC
Power Consumption*	~ 16W	~ 16W
Operating Temperature	-40°C ~ 50°C	-40°C ~ 50°C
External Dimensions (mm)	135 (W) x 140 (H) x 450 (L)	160 (W) x 125 (H) x 415 (L)
Camera Mount Dimensions	105 (W) × 80 (H) × 250 (L)	100 (W) × 60 (H) × 230 (L)
(mm) Weight	3.65 kg	3 kg
In-set Included	Main body, fully cable managed bracket, L-wrench, mounting screws	Main body, fully cable managed bracket, L-wrench, mounting screws
	450 mm 450 mm 135 mm 135 mm Fourier of the fourier of the four	415 mm 415 mm TSO mm TSO mm

\* Due to the nonlinear characteristics of the heating element, depending on temperature, value in the table is approximate only. In addition, it should be taken into account that temporary power consumption during the heater start-up may be even several times higher.



## Brackets for Speed Dome Cameras and Housings

new!			5	I	Ţ	T
	NVB-SD40CB	NVB-SD40WB	NVB-SD40PWB/230	NVB-SD6CB	NVB-SD6CB-II	NVB-SD62CB
Туре	Wall mount bracket	Wall mount bracket	Wall mount bracket	Ceiling mount bracket with cable	Ceiling mount bracket with cable	Ceiling mount cable managed bracket
Application	NVH-SD40EH-C/S	NVH-SD40EH-C/S	NVH-SD40EH-C/S	Speed dome cameras IP & LUCA	Speed dome cameras IP & LUCA	Speed dome IP camera NVIP-2DN6020SD-2P
Material	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Steel
Color	White	White	White	White	White	White
Load Capacity	9 kg	9 kg	9 kg	6 kg	6 kg	6 kg
Degree of Protection	-	-	IP66	-	-	-
Power Supply	-	-	230 VAC/24 VAC	-	-	-
Dimensions (mm)	400 (L) x 129 (base Ø)	288 (L) x 140 (H) x 120 (W)	270 (L) x 215 (H) x 194 (W)	185 (L) x 158 (H) x 158 (W)	200 (L) x 158 (H) x 158 (W)	250 (L) x 140 (base Ø)
Weight	1.2 kg	1.8 kg	3.8 kg	950 g	1 kg	1.06 kg

## **Brackets for Fixed Cameras and Housings**

	*a			0.0	
	NVB-02B	NVB-03B	NVB-100B	NVB-200CB	NVB-G40DB
Туре	Wall mount bracket, indoor	Wall mount bracket, indoor	Wall mount bracket, indoor/outdoor	Wall mount bracket, indoor/outdoor	Wall mount bracket, indoor/outdoor
Application	Classic cameras	Classic cameras	Housings: NVH-100, NVH-150H	Housings: NVH-200H, NVH-250H-II, NVH-300H	Cameras: NVC-GDN4800V/IR, NMP-TDN4401/IR/MPX20
Material	Plastic	Plastic	Aluminium	Aluminium	Aluminium
Color	White	White	White	White	White
Load Capacity	3 kg	3 kg	15 kg	35 kg	15 kg
Dimensions (mm)	125 (L) x 80 (H) x 80 (W)	155 (L) x 80 (H) x 80 (W)	240 (L) x 115 (H) x 74 (W)	127 (L) x 390 (H) x 70 (W)	272 (L) x 120 (H) x 152 (W)
Weight	77 g	83 g	357 g	1.3 kg	976 g

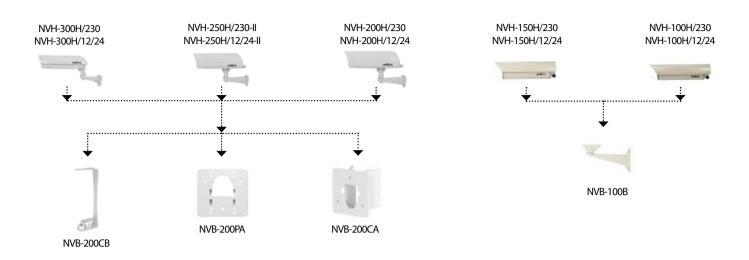
## Adapters for Fixed Camera Housings and Speed Dome Camera Brackets

new!	1				27 <b>9</b> 17 1	
	NVB-200CA	NVB-200PA	NVB-SD6CA	NVB-SD62CA	NVB-SD6PA	NVB-SD62PA
Туре	Corner mount adapter, indoor/outdoo	Pole mount adapter, indoor/outdoor	Corner mount adapter	Corner mount adapter	Pole mount adapter	Pole mount adapter
Application	Housings NVH-200H, NVH-250H-II, NVH-300H	Housings NVH-200H, NVH-250H-II, NVH-300H	Wall mount bracket, IP & LUCA speed dome cameras	Wall mount bracket, speed dome IP camera NVIP-2DN6020SD-2P	Wall mount bracket, IP & LUCA speed dome cameras	Wall mount bracket, speed dome IP camera NVIP-2DN6020SD-2P
Material	Aluminium	Aluminium	Aluminium	Steel	Aluminium	Aluminium
Color	White	White	White	White	White	White
Load Capacity	35 kg	35 kg	25 kg	25 kg	25 kg	25 kg
Dimensions (mm)	120 (W) x 120 (H) x 75 (D)	120 (W) x 120 (H) x 20 (D) Mounting clamps for φ=83 ~ 178 in-set included	160 (W) x 180 (H) x 120 (D)	222 (W) x 204 (H) x 117 (D)	160 (W) x 180 (H) Ø range = 150 ~ 200	136 (W) x 232 (H) Ø range = 112 ~ 130
Weight	340 g	380 g	1.9 kg	1.88 kg	1.1 kg	970 g

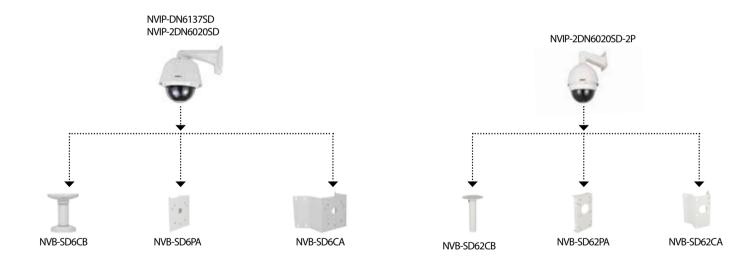




## **Selection of Accessories for Camera Housings**



## Selection of Accessories for IP Speed Dome Cameras



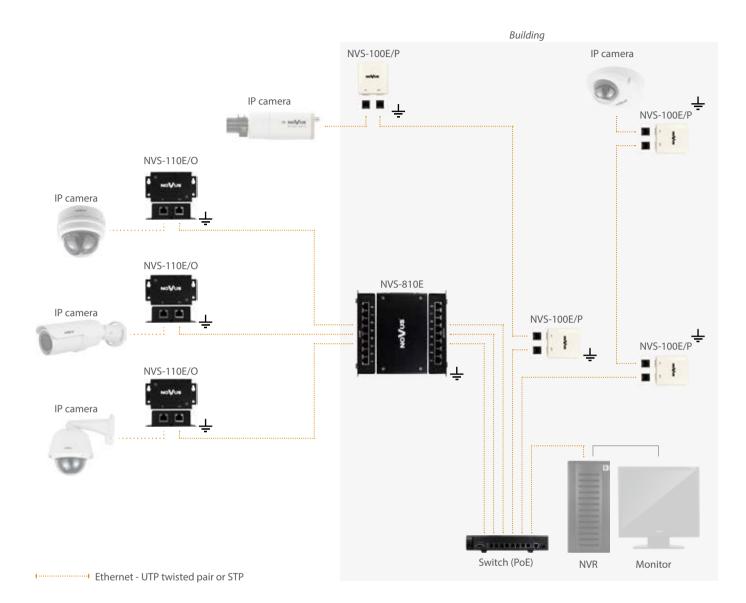


# IP SURGE PROTECTORS





## Surge protection of IP systems

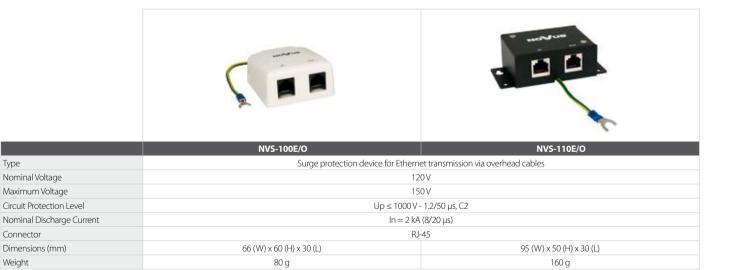




## **IP Surge Protectors**

	NVS-100E	NVS-100E/P	NVS-110E	NVS-110E/P
Туре	Surge protection device for Ethernet transmission	Surge protection device for Ethernet transmission with PoE standard	Surge protection device for Ethernet transmission	Surge protection device for Ethernet transmission with PoE standard
Nominal Voltage	5 V	5 V (0-50 V power supply line)	5 V	5 V (0-50 V power supply line)
Maximum Voltage	бV	6 V (56 V power supply line)	6 V	6 V (56 V power supply line)
Nominal Current	-	400 mA	-	400 mA
Line-Line Voltage Protection Level	Up ≤ 40 V (1 kV/µs, C3)	Up $\leq 40$ V Up $\leq 95$ V (power supply line)	Up ≤ 40 V (1 kV/µs, C3)	Up $\leq$ 40 V Up $\leq$ 125 V (power supply line)
Line-Ground Voltage Protection Level	Up ≤ 600 V (1 kV/µs, C3)	Up $\leq 600 \text{ V}$ Up $\leq 1 \text{ kV}$ (power supply line, 1 kV/µs, C3)	Up ≤ 600 V (1 kV/µs, C3)	Up ≤ 600V Up ≤ 1 kV (power supply line, 1 kV/µs, C3)
Line-Line Nominal Discharge Current	$ln = 20 A (10/1000 \mu s), C3$	In = 20 A (10/1000 μs), C3	$ln = 20 A (10/1000 \mu s). C3$	In = 20 A (10/1000 µs), C3

Line-Line Nominal Discharge Current	$III = 20 \text{ A} (10/1000  \mu\text{s}), CS$	(10 A power supply line) $III = 20 A (10/1000 \mu s), CS$		(10 A power supply line)
Line-Ground Nominal Discharge Current	In = 20 A (10/1000 µs), C3	In = 20 A (10/1000 μs), C3 (2 kA power supply line, 8/20 μs), C2 In = 20 A (10/1000 μs), C3		In = 20 A (10/1000 µs), C3 (2 kA power supply line, 8/20 µs), C2
Connector	RJ-45			
Dimensions (mm)	66 (W) x 60 (H) x 30 (L)	66 (W) x 60 (H) x 30 (L)	95 (W) x 50 (H) x 30 (L)	95 (W) x 50 (H) x 30 (L)
Weight	80 g	80 g	160 g	160 g



Type

Weight





## **IP Surge Protector**



	NV5-810E			
Туре	8-channel passive surge protection device for Ethernet transmission via UTP cable			
Nominal Voltage	Un = 5 V			
Maximum Voltage	Uc = 6V			
Line-Line Voltage Protection Level	$Up \le 40 V - 1 kV/\mu s, C3$			
Line-Ground Voltage Protection Level	$Up \le 600 V - 1 kV/\mu s, C3$			
Line-Line Nominal Discharge Current	In = 20 A 10/1000 μs, C3			
Line-Ground Nominal Discharge Current	In = 20 A 10/1000 μs, C3			
Connector	8 x RJ-45 (input) 8 x RJ-45 (output)			
Dimensions (mm)	162 (W) × 90 (H) × 37 (L)			
Weight	500 g			



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## Certificates

NOVUS® products are manufactured with attention to quality and handling comfort, but also with great care for the safety of their users. For this reason each component of NOVUS® CCTV systems meets the stringent norms applicable in the European Union (CE, WEEE, RoHS), as well as on the territory of the Russian Federation (GOST-R).



European certificate of conformity (CE) guarantees that all NOVUS® products fulfill the demanding safety and quality regulations binding for electric and electronic equipment in United Europe.



NOVUS® products have been designed and constructed in compliance with the RoHS (2002/95/EC) directive limiting the use of hazardous substances in electric and electronic equipment. Completed tests guarantee that the appliances do not contain such substances in quantities that could negatively influence human health or natural environment.



The GOST-R certificate of conformity denotes that NOVUS® products meet the safety and quality norms and standards legally required in the Russian Federation.



NOVUS® products are marked according to the WEEE (2002/96/EC) directive pertaining to handling of waste electric and electronic equipment and, consequently, may not be treated as household waste. Their recycling should be completed by specialized recycling centers. Correct disposal of waste electric and electronic equipment helps protect the natural environment and human health.



3 year warranty for all NOVUS® products.

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