

## Warning!

Please read the user manual included in this work as it contains important information related with safety of installation and use of the device.

Only persons who read the user manual may use the device.

The user manual must be kept because it may be required in the future. The device is to be used exclusively for purposes specified in this user manual.

The device must be unpacked prior to starting-up. After removing the packaging make sure the device is in working order.

If the product has defects, it should not be used until it is repaired.

The product is intended for use at home and commercial use and may not be used for other than intended use.

The manufacturer is not liable for damages resulting from not adhering to the rules contained in the user manual, therefore, we recommend to follow the aforementioned safety rules for operation and maintenance of the device. In this way you will ensure yourself safety and avoid causing damage to the device.

The manufacturer and the supplier are not liable for losses or damages arising out of the product, including financial or intangible losses, loss of profits, income, data, pleasure from use of the product or other products related with it - indirect, incidental or consequential loss or damage. The above provisions apply whether the loss or damage concerns:

1. Deterioration of quality or the lack of operation of the products or products related with it due to damage as well as the lack of access to the product when it is undergoing repair, which results in stoppage the loss of user's time or a break in business activity;
2. Improper results of operation of the product or products related with it;
3. It applies to losses and damages according to any legal category, including negligence and other losses, termination of a contract, expressed or implied guarantee and strict liability (even if the manufacturer or the supplier was notified about the possibility of occurrence of such damages).

### Safety measures:

Particular attention at designing was directed to quality standards of the device where ensuring safety of operation is the most important factor.

The device must be secured against contact with caustic, staining and viscous fluids.

The device was designed in such a way that it restarts operation when power supply is restored after a break.

**Attention! We recommend using protections to further protect the device from possible overvoltages in installations. Surge protectors are effective protection against accidental pass to the device voltages higher than the rated. Damages caused by pass the voltages higher than specified in manual, are not under warranty.**

Turn off the device before transporting it.

Prior to connecting the device to a power source check whether the supplied voltage is consistent with rated voltage specified in the user manual.

### Proper product disposal:

A marking of a crossed out waste bin indicates that the product may not be disposed together with other household waste in the entire EU. To avoid possible damage to the natural environment of health due to uncontrolled waste disposal, therefore, it should be handed over for recycling, propagating in this way sustainable use of natural resources.

To return a worn-out product, use a collection and disposal system of this type of equipment or contact a seller from whom it was purchased. He will then be recycled in an environmentally-friendly way.

Megapixel camera with 1/2.8" Sony CMOS sensor and AHD (Analog High Definition) / PAL.  
The AHD interface allows to transmission of analog video signal via coaxial cable in 1080p resolution. It enables the transmission of HD resolution images for even 500 m distance with keeping the low costs of the installation. During transmission there are no delays and is maintained the original, high quality image.

Additionally camera has a possibility to select output signal standard between AHD and PAL. The change of the AHD / PAL standard is done with joystick by holding it tilted to the right or to the left for approx. 3 seconds, without going into the OSD.

The 3-Axis integrated camera bracket has a regulation in all three planes, which allows to turn the camera to any direction.





# User Manual

Code: GEMINI-AH2-45W  
AHD, PAL CAMERA **GEMINI-AH2-45W** - 1080p 2.8 ... 12 mm

Standard:	AHD / PAL
Sensor:	1/2.8 " Sony CMOS IMX222
Digital Image Processor:	Nextchip NVP2441H
Matrix size:	2.0 Mpx
Resolution:	1920 x 1080 - 1080p AHD-H , 960 x 576 - 960H PAL
Video output:	1 Vpp 75 $\Omega$ , AHD / PAL - selectable by switch + Additional "Spot" output - allows to quick view the image from camera and its configuration without the need to disconnect it from monitoring system
Lens:	2.8 ... 12 mm, 2 Mpx, DC
View angle:	<ul style="list-style-type: none"><li>• 85 ° ... 24 ° (manufacturer data)</li><li>• 92 ° ... 31 ° (our tests result)</li></ul>
S/N ratio:	> 50 dB
IR illuminator power adjustment:	By potentiometer
Range of IR illumination:	50 m
OSD menu:	✓
Main features:	<ul style="list-style-type: none"><li>• ICR - Movable InfraRed filter</li><li>• Day/Night mode (color/b&amp;w/auto)</li><li>• WB - White Balance (ATW/AWB/manual/indoor/outdoor)</li><li>• Sense-UP - (Slow Shutter) - Increase the sensor sensitivity max. x 30</li><li>• D-WDR - Wide Dynamic Range</li><li>• 2D-DNR / 3D-DNR - Digital Noise Reduction</li><li>• F-DNR (Defog) - Reduction of image noise caused by precipitation</li><li>• Motion Detection - max. 4 zones</li><li>• Privacy zones - max. 4</li><li>• BLC - configurable Back Light Compensation</li><li>• HSBLC - High Light Compensation (spot)</li><li>• Mirror - Mirror image</li><li>• image "freeze"</li><li>• Sharpness - sharper image outlines</li><li>• Monitor type correction - LCD/CRT</li></ul>
Power supply:	12 V DC / 400 mA
Housing:	Compact, Metal
Color:	White
"Index of Protection":	IP66
Operation temp:	-20 °C ... 55 °C
Weight:	0.8 kg
Dimensions:	255 x 123 x 92 mm
Supported languages:	English, Chinese Traditional, Chinese Simplified, French, Spanish, Dutch, German, Polish, Portuguese, Russian, Turkish, Italian
Manufacturer / Brand:	GEMINI
Guarantee:	2 years



Side view:



The appropriate signal format selection is done by tilting and holding the joystick for 5 s without entering to the OSD menu. Changing the signal to the NTSC in the camera causes loss of image in connected AHD recorder:



## Configuration

- 1 - Turn on the power
  - 2 - Move the joystick left or right, setting the appropriate resolution
  - 3 - Move the joystick down by 5 s, setting the PAL / NTSC
- The PAL and NTSC standard is set regardless of the resolution.



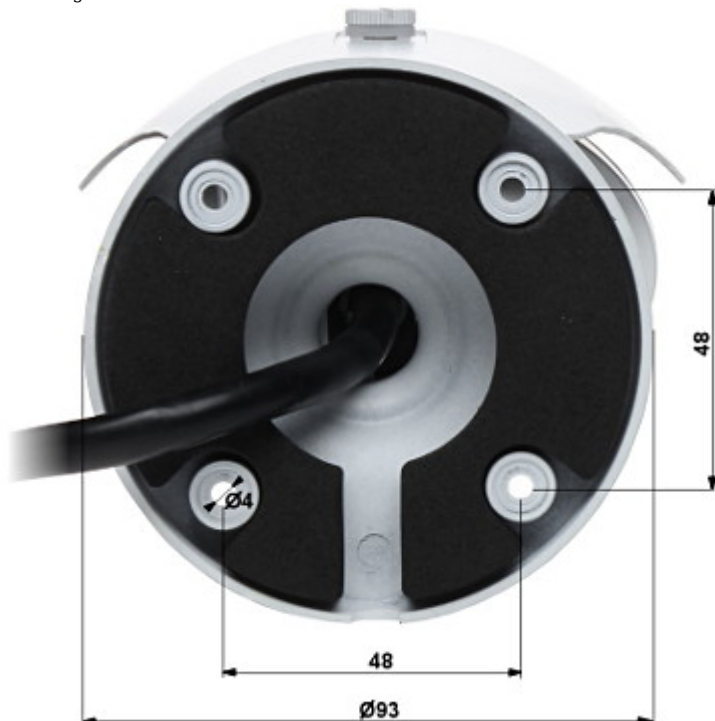
If you need to make an adjustment and open the cover, please follow the steps in the following order:

- 1 - loosen the Phillips screws (hinge),
- 2 - unscrew the Allen screws (cover),
- 3 - open the cover, make the adjustment and close the cover,
- 4 - screw the Allen screws (cover),

5 - tighten the Phillips screws (hinge).

This ensures the correct sealing pressure and tightness of the camera.

Mounting dimensions:



In the kit:



PACKAGE

Dimensions (L x W x H): 0x0x0 mm	Gross Weight: 0 kg
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