

# User's manual



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**NVH-200H/230**  
**NVH-200H/12/24**

**noVus<sup>®</sup>**

## INFORMATION

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### EMC (2004/108/EC) and LVD (2006/95/EC ) Directives

#### CE Marking

Our products are manufactured to comply with requirements of following directives and national regulations implementing the directives:

- Electromagnetic compatibility EMC 2004/108/EC.
- Low voltage LVD 2006/95/EC with further amendment. The Directive applies to electrical equipment designed for use with a voltage rating of between 50VAC and 1000VAC as well as 75VDC and 1500VDC



#### WEEE Directive 2002/96/EC

#### Information for users who want to get rid of electrical and electronic appliances

This appliance is marked according to the European Directive on Waste Electrical and Electronic Equipment (2002/96/EC) and further amendments. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The symbol on the product, or on the documents accompanying the product, indicates that this appliance may not be treated as household waste. It shall be handed over to the applicable collection point for used electrical and electronic equipment for recycling purpose.

For more information about recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.



#### RoHS Directive 2002/95/EC

Out of concern for human health protection and friendly environment, we assure that our products falling under RoHS Directive regulations, regarding the restriction of the use of hazardous substances in electrical and electronic equipment, have been designed and manufactured in compliance with mentioned regulation. Simultaneously, we claim that our products have been tested and do not contain hazardous substances exceeding limits which could have negative impact on human health or natural environment.

### Information

The device, as a part of professional CCTV system used for surveillance and control, is not designed for self installation in households by individuals without technical knowledge.

The manufacturer is not responsible for defects and damages resulting from improper, or inconsistent with user's manual, installation of the device in the system.

## WARNINGS

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### ATTENTION!

THE KNOWLEDGE OF THIS USER'S MANUAL IS AN INDESPENSIBLE CONDITION OF A PROPER DEVICE OPERATING. YOU ARE KINDLY REQUESTED TO FAMILIARIZE YOURSELF WITH THIS MANUAL BEFORE STARTING THE DEVICE. THE MANUAL SHOULD BE KEPT FOR FUTURE USE.



### CAUTION!

ALL REPAIRS CAN BE EXECUTED ONLY BY QUALIFIED STAFF OF THE AUTHORISED NOVUS SERVICE.

### CAUTION!

PRIOR TO UNDERTAKING ANY ACTION THAT IS NOT PROVISIONED FOR THE GIVEN PRODUCT IN ITS USER'S MANUAL AND OTHER DOCUMENTS DELIVERED WITH THE PRODUCT, OR THAT ARISES FROM THE NORMAL APPLICATION OF THE PRODUCT, ITS MANUFACTURER MUST BE CONTACTED OR THE RESPONSIBILITY OF THE MANUFACTURER FOR THE RESULTS OF SUCH AN ACTION SHALL BE EXCLUDED.

## IMPORTANT SAFEGUARDS AND WARNINGS

1. Read, keep, and follow these instructions. All the safety and operating instructions should be read before the product is operated.
2. Heed all warnings. All warnings on the product and in the instruction manual should be adhered to.
3. Follow all the safety instructions in this manual. Improper installation and camera operation may have impact on operator's safety as well as camera operational reliability and working life.
4. All the camera installations and operations should be done according to this user's manual.
5. Unplug the unit before maintenance activities.
6. Use only attachments / accessories specified by the manufacturer.
7. To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture as this unit is designed for indoor use only. Do not install the camera near any heat source or near water (any wet area).
8. Do not block any ventilation openings. All the installation have to be in accordance with the manufacturer's instructions.
9. Installation and servicing should be done only by qualified service personnel and conform to all local codes.
10. This product should be operated only from the type of a power source indicated on the marking label. If you are not sure of the type of power supplied to your location, consult your product dealer. Do not overload power supply and extension cords as this can result in a risk of fire and/or electronic shock. Use Certified/Listed Class 2 power supply transformer only.
11. Power cords and cables should be led in a way that protects them from being damaged.

## WARNINGS

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12. For protection of the equipment during a lightning storm or when it is left unattended and unused for long periods of time, unplug the unit. Disconnect any antennas or cable systems that may be connected to the equipment. This will prevent damage to the equipment due to lightning or power-line surges.
13. Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
14. This unit is designed for indoor use only and it must not be exposed to rain or moisture.
15. There are no user-serviceable parts inside this unit. Only authorized service personnel may open the unit.
16. Unplug the unit and refer servicing to qualified service personnel under the following conditions:
  - a. When the power supply cord or plug is damaged.
  - b. If liquid has been spilled or objects have fallen in to the unit.
  - c. If the unit has been exposed to rain or water.
  - d. If the unit does not operate normally by following the operating instructions.
  - e. If the unit has been dropped or the cabinet has been damaged.
  - f. When the unit exhibits a distinct change in performance - this indicates a need for service.
17. Do not attempt to service the camera yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
18. After any service operations test the camera and functionality of all camera attachments / accessories .
19. The camera should be powered from the 24 VAC adapter. The adapter power required for camera proper operation should be equal or higher than 20 W for camera module only and 80 W for a camera with a fan and heater.

## INFORMATION

Data included in the following user's manual is up to date at the time of printing. Novus Security Sp z o.o. holds exclusive rights to modify this manual. The producer reserves the rights for device specification modification and change in the design without prior notice.

**MAIN CHARACTERISTIC****1. MAIN CHARACTERISTICS**

- ◆ External housing for compact cameras
- ◆ Die-cast aluminium construction with powder coat stove finished, glass window
- ◆ Internal heater allows to operate in temperatures : from - 40°C to 50°C
- ◆ Heater power supply: 230VAC or 24VAC/12VDC, depending on model (housing power supply information is defined in housing name after „/” mark)
- ◆ Degree of protection - IP66
- ◆ Mounting bracket included

**2. PACKAGE CONTENTS**

The package should contain the following elements:

Housing:	1 pcs
Bracket:	1 pcs
User's manual:	1 pcs
Mounting screws:	2 pcs
Plastic anchors and screws for wall bracket mount	3 pcs
Isolation separator, isolation washer, camera mount	1 pcs each
Torx L-Wrench	1 pcs

If the equipment has been damaged during transport or is incomplete, the contents of the package should be packed back to the original box. Contact the local NOVUS distributor for further assistance.

**3. SPECIFICATIONS**

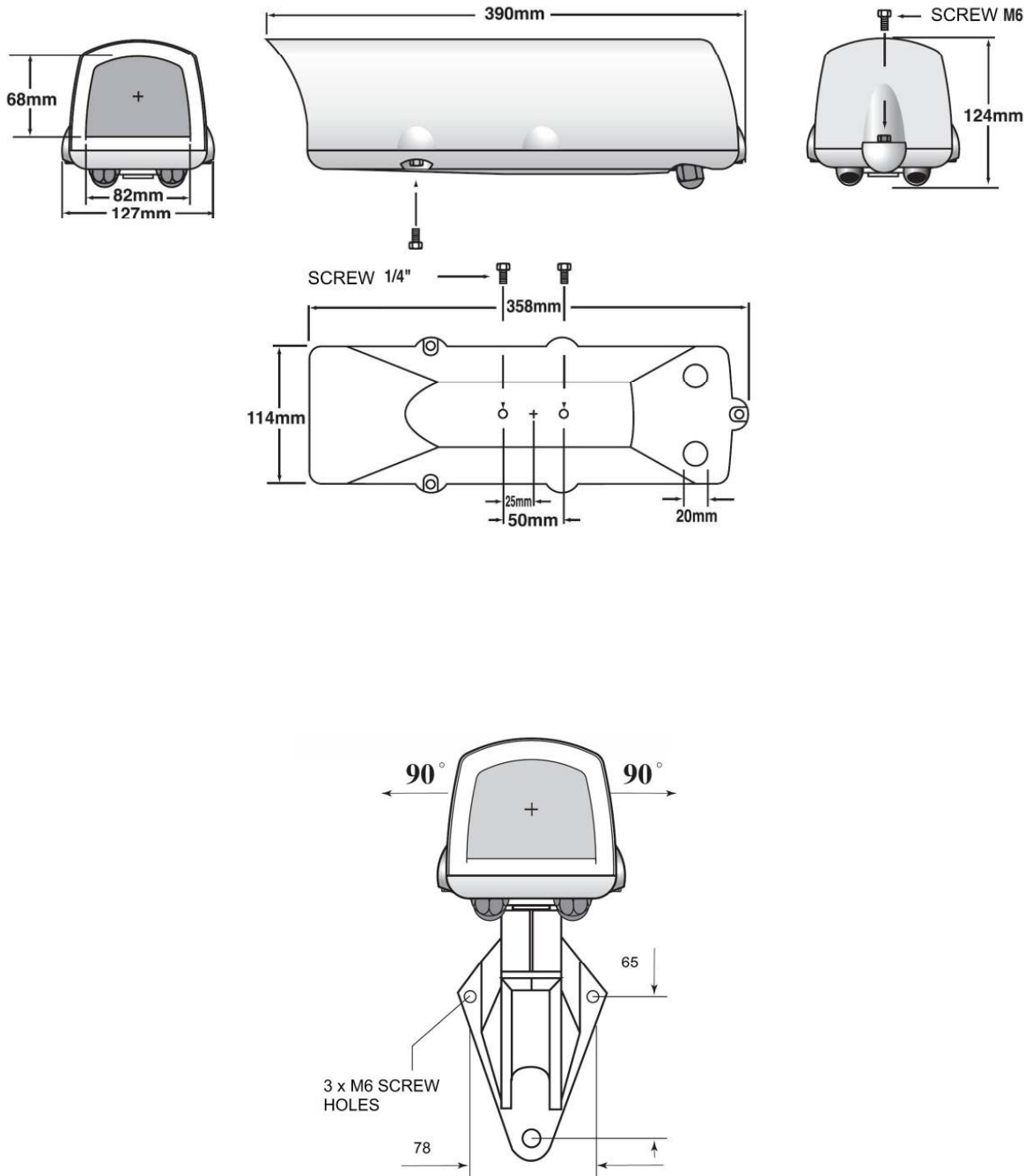
Housing model and type	NVH-200H/230	NVH-200H/12/24
Type	External for compact cameras	
Construction material	aluminum	
Colour	white	
Heater	yes	
Sunshield	yes	
Degree of protection	IP 66	
Power supply	230 VAC	12VDC / 24VAC
Operating temperature	-40°C ~ 50°C	
Dimensions (mm)	390 (L) x 114 (W)x 124 (H)	
Internal space dimensions (mm)	230 (L) x 90 (W)x 70 (H)	
Weight (with mounting bracket)	2.5 kg	
In set included	housing, bracket, torx, screws, user's manual	

## SPECIFICATIONS

### 3.1 Dimensions details

INTERNAL SPACE  
FOR CAMERA AND LENS MOUNT

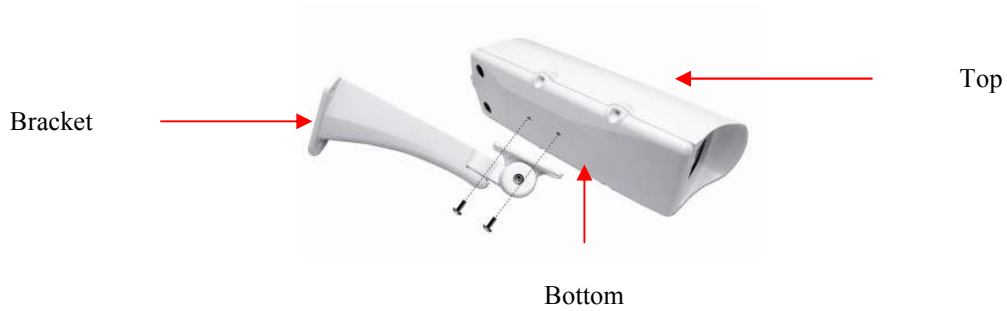
230 (L) x 90 (W) x 70 (H) [mm]



## SPECIFICATIONS

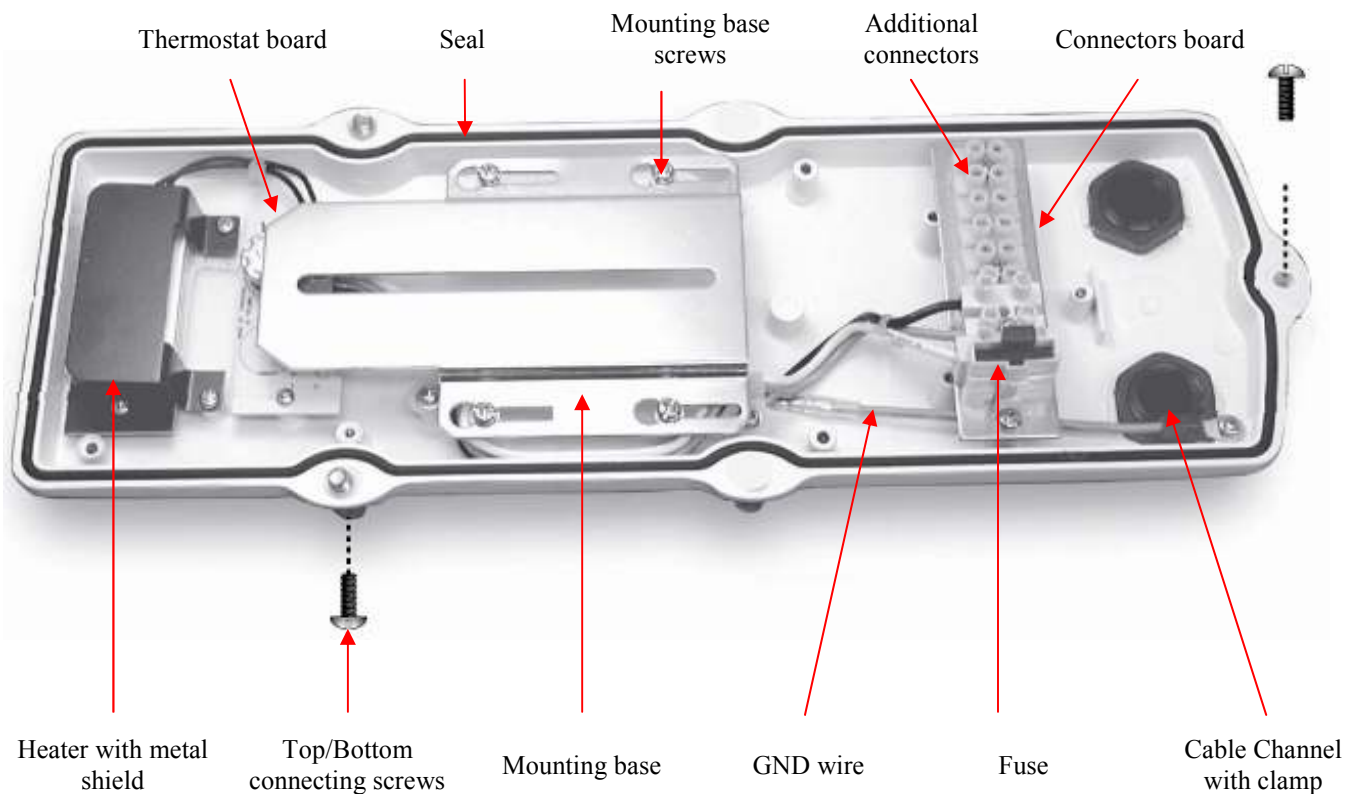
### 3.2. Housing elements

Main parts of NVH-200H housing:



Unscrew 3 screws and open the housing. After disconnecting GND wire it is possible to demount housing top part.

See picture below for parts location.

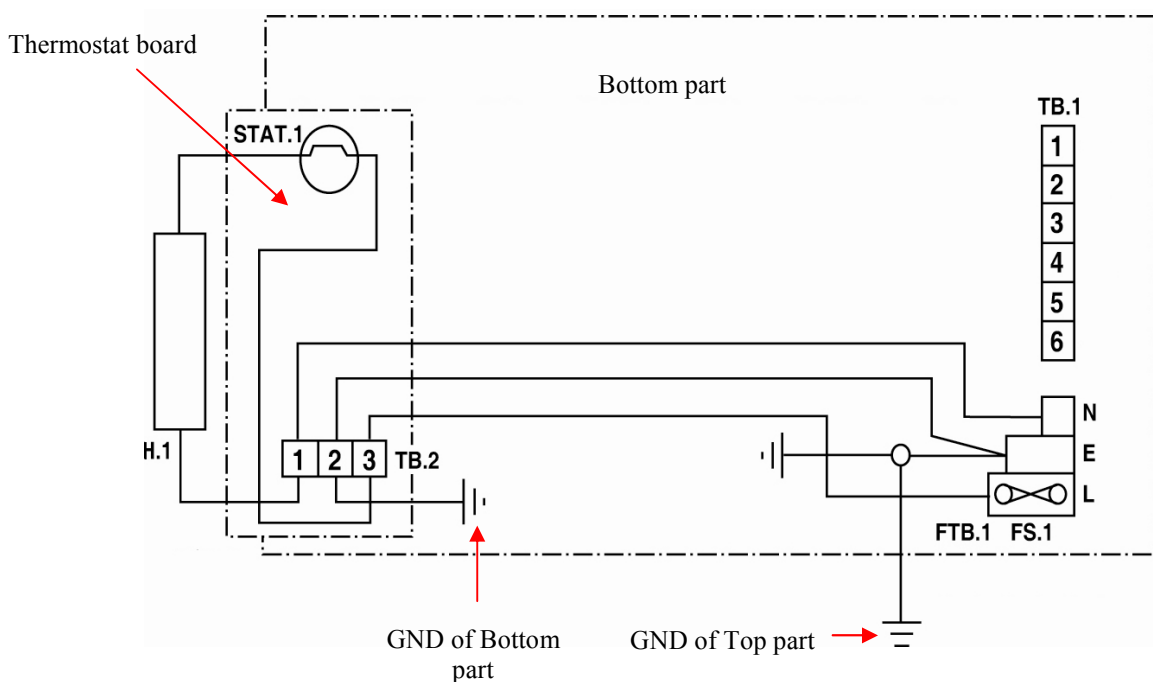


## SPECIFICATIONS

### 3.3. Electrical elements

Housing is equipped with a heater controlled by a thermostat. The heater task is to avoid steam condensation on glass window. That's why heater is located next to the glass window. Depending on housing model, the heater operates with 230 VAC or 12VDC and 24 VAC. The heater is turned on by thermostat when the temperature drops to 18°C and turns it off when temperature reaches 25°C. Thermostat is located on thermostat board. All electrical elements are connected by default. One should connect power supply to additional connectors located in the rear part of the housing (starting from glass window).

Refer to picture below

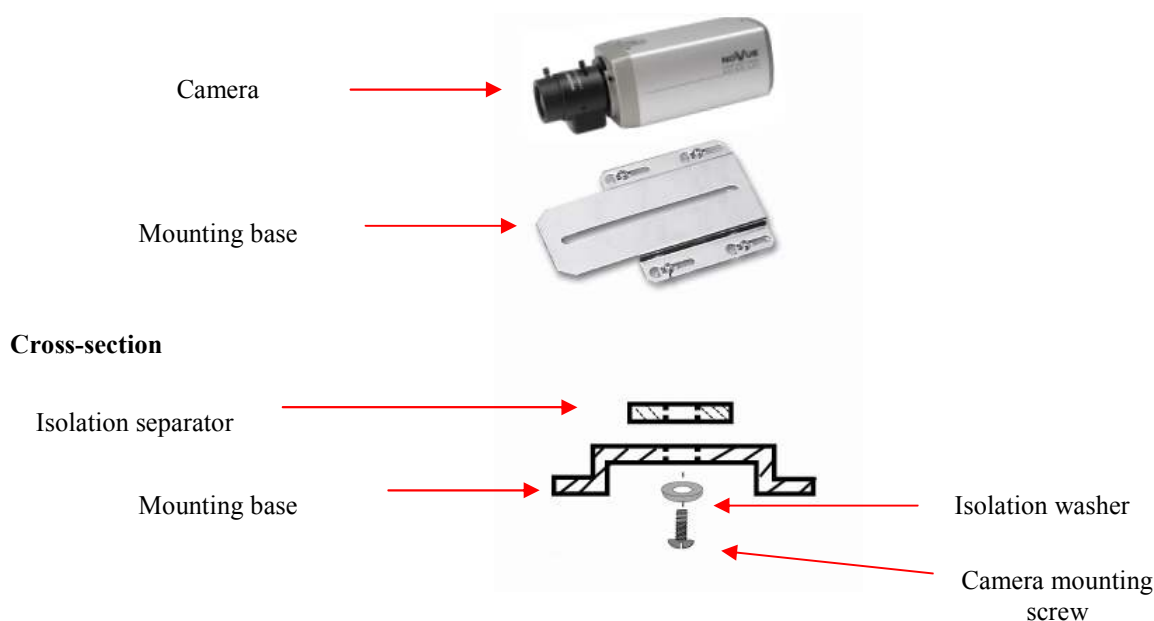


MARK	ELEMENT
H.1	Heater 230VAC or 24VAC/12VDC depending on model
STAT.1	Thermostat
TB.2	Additional connectors on thermostat board (V-IN)
FTB.1 N E L	Terminal connectors on terminal board, for heater connection; - neutral or - 12VDC - GND - live line or + 12VDC
FS.1	fuse
TB.1	Additional terminal connectors for camera power supply etc.

**CAUTION:** Heater is non-linear element. Power consumption of heater in steady-state is about 16W. Power consumption in starting stage (especially in low temperatures) may increase several times.

#### 4. Mounting camera in housing

1. Select suitable mounting location and lead all cables near the bracket.
2. Mark mounting position and drill 3 holes for plastic anchors.
3. Screw on bracket to the wall using 3 tapping screws with plastic anchors.
4. Unscrew 3 screws connecting parts of the housing with Hex L-wrench.
5. Open the housing
6. Feed on the necessary cables through the cable channel and screw on cable clamp for cable channel sealing.
7. Screw on housing to the bracket with 2 screws
8. Connect housing power cables to terminal FTB.1 with proper polarization (refer to previous page)
9. Dismount mounting base (unscrew 4 screws)
10. Screw on camera to the mounting base with additional screw. Remember to use isolation separator and isolation washer for camera isolation. Refer to Picture below



The camera mounting place should be chosen depending on camera-lens length.

**CAUTION:** It is not advised to install camera-lens kit directly above heater shield. Heat emitted from the heater may cause grease evaporation from mechanical part of lens. It can damage lens mechanism.

11. Screw on mounting base with camera to bottom part of the housing. Longitudinal holes allow to set camera position according to the heater.
12. Connect power and other necessary signals to the camera. Use TB.1 terminal connectors.
13. Check and if necessary set lens focal length and sharpness
14. Close the housing.

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