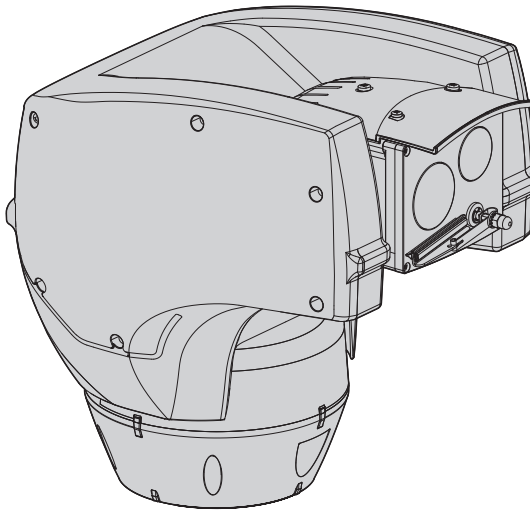




# ULISSE COMPACT THERMAL

Outdoor PTZ camera Dual Vision, Day/Night and Thermal, for total darkness monitoring



**EN** English - Instructions manual

**IT** Italiano - Manuale di istruzioni

**FR** Français - Manuel d'instructions

**DE** Deutsch - Bedienungsanleitung

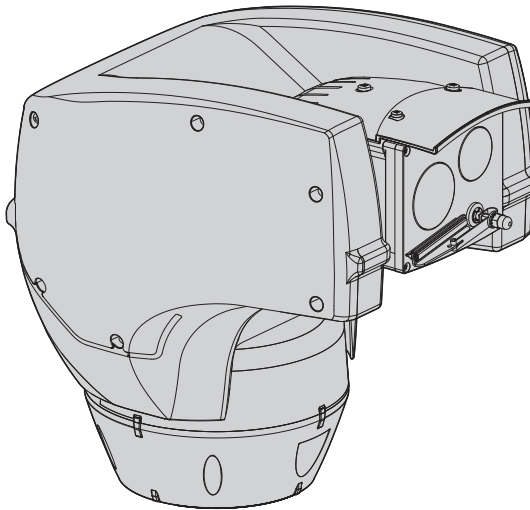
**RU** Русский - Руководство по эксплуатации





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**Outdoor PTZ camera Dual Vision, Day/Night and Thermal, for total darkness monitoring**







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# 1 About this manual

Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference.

## 1.1 Typographical conventions



### **DANGER!**

**High level hazard.**

**Risk of electric shock. Disconnect the power supply before proceeding with any operation, unless indicated otherwise.**



### **DANGER!**

**Mechanical hazard.**

**Risk of crushing or shearing.**



### **DANGER!**

**Hot surface.**

**Avoid contact. Surfaces are hot and may cause personal injury if touched.**



### **CAUTION!**

**Medium level hazard.**

**This operation is very important for the system to function properly. Please read the procedure described very carefully and carry it out as instructed.**



### **INFO**

**Description of system specifications.**

**We recommend reading this part carefully in order to understand the subsequent stages.**

# 3 Safety rules



**CAUTION!** The electrical system to which the unit is connected must be equipped with a 20A max automatic bipolar circuit breaker. This circuit breaker must be of the Listed type. The minimum distance between the contacts must be 3mm (0.1in). The circuit breaker must be provided with protection against the fault current towards the ground (differential) and the overcurrent (magnetothermal).



**CAUTION!** Hazardous moving parts. Keep fingers and other body parts away.



**CAUTION!** The device must be installed only and exclusively by skilled technical personnel.



**CAUTION!** TNV-1 installation type. The installation is type TNV-1, do not connect it to SELV circuits.



**CAUTION!** For continued protection against risk of fire, replace only with same type and rating of fuse. Fuses must be replaced only by service personnel.



**CAUTION!** In order to reduce the risk of fire, only use UL Listed or CSA certified cables sizes greater than or equal to 0.13mm<sup>2</sup> (26 AWG).

## 2 Notes on copyright and information on trademarks

The quoted names of products or companies are trademarks or registered trademarks.

Microsoft Internet Explorer®, Windows XP®, Windows Vista® are the property of Microsoft Corporation.

INTEL® Core™ 2 Duo, INTEL® Core™ 2 Quad, INTEL® Xeon® are the property of Intel Corporation.

- The manufacturer declines all responsibility for any damage caused by an improper use of the appliances mentioned in this manual. Furthermore, the manufacturer reserves the right to modify its contents without any prior notice. The documentation contained in this manual has been collected with great care. The manufacturer, however, cannot take any liability for its use. The same thing can be said for any person or company involved in the creation and production of this manual.
- Before starting any operation, make sure the power supply is disconnected.
- Do not use cables that seem worn or old.
- Never, under any circumstances, make any changes or connections that are not shown in this handbook. Improper use of the appliance can cause serious hazards, risking the safety of personnel and of the installation.
- Use only original spare parts. Non-original spare parts could cause fire, electrical discharge or other hazards.
- Before proceeding with installation, check the supplied material to make sure it corresponds to the order specification by examining the identification labels (4.2 Product markings, page 10).
- This device was designed to be permanently installed on a building or on a suitable structure. The device must be installed permanently before any operation.
- Installation category (also called Overvoltage Category) specifies the level of mains voltage surges that the equipment will be subjected to. The category depends upon the location of the equipment, and on any external surge protection provided. Equipment in an industrial environment, directly connected to major feeders/short branch circuits, is subjected to Installation Category III. If this is the case, a reduction to Installation Category II is required. This can be achieved by use of an insulating transformer with an earthed screen between primary and secondary, or by fitting listed Surge Protective Devices (SPDs) from live to neutral and from neutral to earth. Listed SPDs shall be designed for repeated limiting of transient voltage surges, suitable rated for operating voltage and designated as follows: Type 2 (Permanently connected SPDs intended for installation on the load side of the service equipment overcurrent device); Nominal Discharge Current ( $I_n$ ) 20kA min. For example: FERRAZ SHAWMUT, STT2240SPG-CN, STT2BL240SPG-CN rated 120Vac/240Vac, ( $I_n=20kA$ ). Maximum distance between installation and reduction is 5m.
- Use a Class 2 listed UL transformer, compliant with the Standards in force, only for products marked UL, powered at 24Vac.
- A disconnecting device, readily and easily accessible, must be incorporated in the electrical system of the building for rapid intervention.
- The separate protective earthing terminal provided on this product shall be permanently connected to earth.

- Connect the device to a power source corresponding to the indications given on the marking label. Before proceeding with installation make sure that the power line is properly isolated. The supply voltage should never exceed the limit ( $\pm 10\%$ ).
- If it is necessary to transport the device, this should be done with great care. Abrupt stops, bumps and violent impact could damage the unit or injure the user.
- To comply with the main supply voltage dips and short interruption requirements, use a suitable Uninterruptable Power Supply (UPS) to power the unit.
- The device should be mounted so that it is accessible only to the technician/installer because the moving parts constitute a residual risk of injury caused by movement of said parts.
- Attach the Dangerous Moving Parts label near the device. (Fig. 2, page 11).
- Do not use the appliance in the presence of inflammable substances.
- Do not allow children or unauthorised people to use the appliance.
- The appliance should only be considered switched off when the power supply has been disconnected and the connecting cables to other devices have been removed.
- Only skilled personnel should carry out maintenance on the device. When carrying out maintenance, the operator is exposed to the risk of electrocution and other hazards.
- Use only the accessories indicated by the manufacturer. Any change that is not expressly approved by the manufacturer will invalidate the guarantee.
- Connect the coaxial cable to earth.
- Before connecting all the cables make sure the device is properly connected to the earth circuit.
- If the device has to be removed from the installation, always disconnect the earth cable last.
- Take all necessary precautions to prevent the apparatus from being damaged by electrostatic discharge.
- The unit has been made for connection using a 3-pole cable. To make a correct connection to the earth circuit, follow the instructions in this handbook.
- Handle the unit with great care, high mechanical stress could damage it.
- Make especially sure that the power supply line is insulated at a sufficient distance from all the other cables, including lightning protection devices.

## 4 Identification

### 4.1 Product description and type designation

The PTZ ULISSE COMPACT THERMAL camera offers an exceptional integrated solution, for effective monitoring even in complete darkness or in extreme environmental conditions, fog, rain, smoke, or for long distances.

In fact, the unit incorporates an aligned visual camera and thermal camera, with independent management of the two video flows.

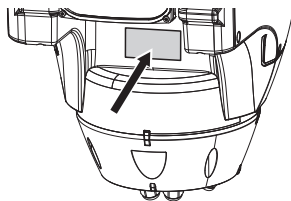
The Day/Night camera is able to clearly identify the target in normal light conditions, while the thermal vision detects people and events, in complete darkness, smoke or thick fog.

This solution is particularly useful in critical applications, requiring constant and reliable non-stop monitoring of an outdoor area and an infallible system for detecting events and presences, which does not require maintenance.

The accurate top-mount construction ensures vision beyond the horizon and the continuous rotation on the horizontal axis, combining high speed to absolute tracking accuracy, both in manual mode and in patrol mode.

## 4.2 Product markings

**i** Pan & tilt devices have a label complying with CE markings.



**Fig. 1**

The label shows:

- Model identification code (Extended 3/9 bar code).
- Power supply (Volt).
- Frequency (Hertz).
- Current consumption (Amps).
- Weatherproof standard (IP).
- Serial number.


### 4.2.1 Checking the markings

Before proceeding further with installation, make sure the material supplied corresponds to the order specification by examining the marking labels.

Never, under any circumstances, make any changes or connections that are not shown in this handbook. Improper use of the appliance can cause serious hazards, risking the safety of personnel and of the installation.



## 5 Preparing the product for use

 **Any change that is not expressly approved by the manufacturer will invalidate the guarantee.**

### 5.1 Safety precautions before use


 **The appliance includes moving parts. Make sure that the unit is positioned where it is inaccessible under normal operating conditions. Attach the warning label supplied with the appliance, placing it near the unit so that it can be seen easily.**



Fig. 2

## 5.2 Unpacking

When the product is delivered, make sure that the package is intact and that there are no signs that it has been dropped or scratched.

If there are obvious signs of damage, contact the supplier immediately.

Keep the packaging in case you need to send the product for repairs.

## 5.3 Contents

Check the contents to make sure they correspond with the list of materials as below:

- Positioning unit
- Accessories box
- Serial extension cable
- Label
- Silicon sheath
- Ties
- Instructions manual

## 5.4 Safely disposing of packaging material

The packaging material can all be recycled. The installer technician will be responsible for separating the material for disposal, and in any case for compliance with the legislation in force where the device is to be used.

When returning a faulty product we recommend using the original packaging for shipping.

## 5.5 Preparatory work before installation

### 5.5.1 Attaching the bracket

Different types of supports are available (9 Accessories, page 48). Choose a suitable bracket for the installation and follow all the instructions in the suggested chapter.

**⚠ Take special care when attaching and fastening down the apparatus. If it is to be attached to a concrete surface you must use dowel pins with a traction torque rating of at least 300dN each. For a metal surface use screws with a diameter of at least 8mm and of an appropriate length. The clamping system must be able to support at least 4 times the weight of the entire equipment, including P&T, lenses and camera.**

**⚠ The device should be assembled vertically. Any other position could impair the performance of the appliance.**

### 5.5.2 Cables management

**⚠ The connection cables should not be accessible from the outside. It is necessary to fasten the cables securely to the support in order to prevent excessive weight pulling them out accidentally.**

**⚠ You must use cables suited to the type of installation.**

Insert the cables into the support so that they protrude by about 50cm.

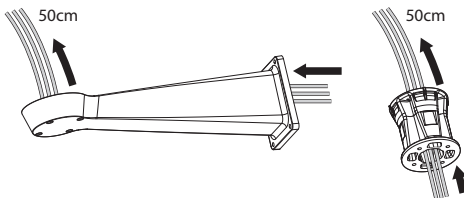


Fig. 3

## 6 Installation

**⚠ Never, under any circumstances, make any changes or connections that are not shown in this handbook. Failure to follow the connection instructions that are given in the handbook may create serious safety hazards for people and for the installation.**

**⚠ Do not change the wiring in the product as it is supplied to you. Failure to follow this instruction may create serious safety hazards for people and for the installation, and will also invalidate the guarantee.**

**i Keep a connection diagram for future reference.**

### 6.1 Connecting the cables to the base

Insert the cables into the cable glands holding the base at about 20cm from the support. Tighten the cable glands. The cable glands are suitable for cables with a diameter between 5mm and 10 mm.

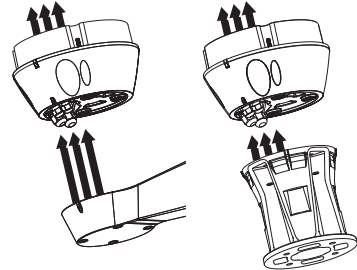


Fig. 4

## 6.2 Fixing the base to the support

**⚠ Use the screws and the washers supplied with the base.**

After having positioned gasket (01), fasten base (02) on support (03) using screws (04), toothed spring washers and the flat washers (05). Insert the screw-sealing OR (06).

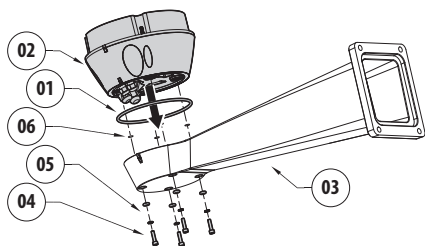


Fig. 5

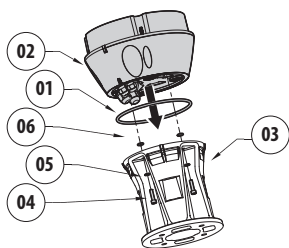


Fig. 6

Align the 3 notches on the base with those on the support as shown in the following figure.

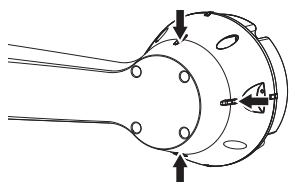


Fig. 7

**⚠ Apply a thread-locker on the holes of the screws (Loctite 243°).**

**⚠ Pay attention to the fixing. Tightening torque: 4Nm.**

## 6.3 Connection of the connector board

### 6.3.1 Connector board description

BOARD DESCRIPTION	
Connector	Function
J2	Power supply line
J5/J7	Video output
J10	Telemetry lines

Tab. 1

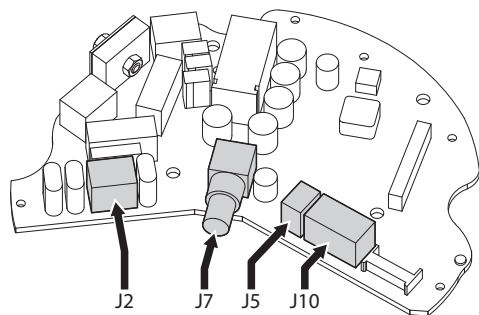


Fig. 8

## 6.3.2 Connection of the power supply line

**⚠** Electrical connections must be performed with the power supply disconnected and the circuit-breaker open.

**⚠** When commencing installation make sure that the specifications for the power supply for the installation correspond with those required by the device.

**⚠** Earth cable should be about 10mm longer than the other two, so that it will not be disconnected accidentally if pulled.

**⚠** Make sure that the power source and connecting cables are suitable for the power consumption of the system.

**⚠** The power supply cable should also be covered by the silicone sheath (01) supplied for this purpose. The silicone sheath must be fastened with the corresponding tie (02).

Depending on the version, the device can be provided with different power supply voltages. Their value is shown on the product identification label (4.2 Product markings, page 10).

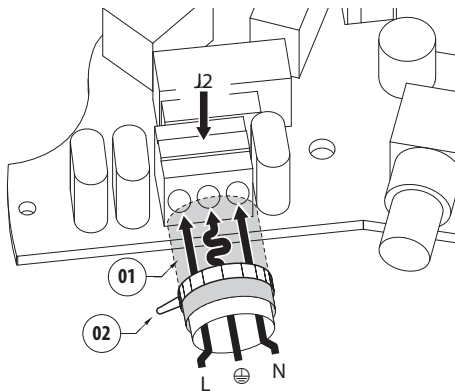


Fig. 9

Connect the power supply cables to the J2 terminal as described in the table.

CONNECTION OF THE POWER SUPPLY LINE	
Colour	Terminals
<b>Power supply 24Vac</b>	
Defined by the installer	N (Neutral)
Defined by the installer	L (Phase)
Yellow/Green	GND
<b>Power supply 230Vac</b>	
Blue	N (Neutral)
Brown	L (Phase)
Yellow/Green	GND
<b>Power supply 120Vac</b>	
Blue	N (Neutral)
Brown	L (Phase)
Yellow/Green	GND

Tab. 2

**⚠** Use a Class 2 listed UL transformer, compliant with the Standards in force, only for products marked UL, powered at 24Vac.

**⚠** To connect the power supply line use the appropriate junction-box (UPTJBUL). For further information, refer to the product use and installation manual.

## 6.4 Connection of the secondary connector board

**⚠ All signal cables must be grouped together by means of a strap.**

### 6.4.1 Description of the secondary board

BOARD DESCRIPTION	
Connector	Function
CN1/CN2	Relays and alarm
CN3	Secondary video output
CN4	Thermal camera control
DS1	Video format selection/Serial line termination

Tab. 3

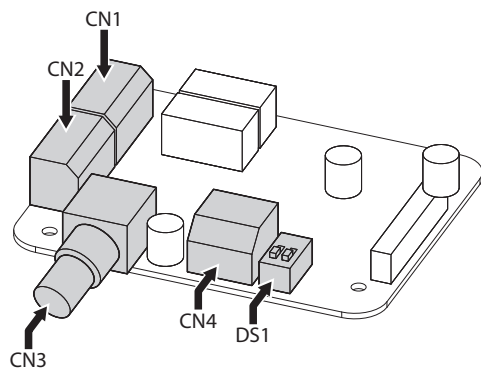


Fig. 10 Alarms and relay board.

### 6.4.2 Connection of the alarm inputs

In case of free contact alarm make the connection as shown in the figure.

The alarm contacts are present on connector (CN1- CN2).

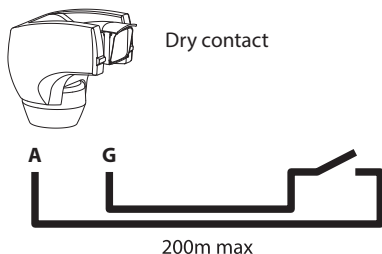


Fig. 11

The dry contact alarm can be NO (normally open) or NC (normally closed).

All alarms have an approximate reach of 200m, which can be obtained using an unshielded cable with a minimum section of 0.25mm<sup>2</sup> (24 AWG).

### 6.4.3 Relay connection

**⚠ Relays can be used for low working voltages only (up to 30Vac or 60Vdc) and with a maximum current of 1A. Use cables with a section suitable for the load to be controlled and use cables with a minimum section of 0.25mm<sup>2</sup> (24 AWG) and maximum section of 1.5mm<sup>2</sup> (16 AWG).**

The relay clamps are located in the relative connector: Relays and alarms (6.4.1 Description of the secondary board, page 15).

Relays do not have polarity and therefore both terminals A or B of the same relay can be used, for alternating or continuous current voltages.

RELAY CONNECTION	
Terminal	Description
R1A	Relay 1, Terminal A
R1B	Relay 1, Terminal B
R2A	Relay 2, Terminal A
R2B	Relay 2, Terminal B

Tab. 4

**i For further information refer to the relative chapter (8.1.12.1 Alarms Menu, page 40).**

## 6.5 Connections of one or more video cables



**CDS installation type (Cable Distribution System). The installation is type TNV-1, do not connect it to SELV circuits.**

### 6.5.1 Connecting the main video

The video signal is present on connectors J5 and J7 of the board. Only use one connector.

**Connector J5:** Connect the screen and the central cable to terminals GND and CVBS respectively.

**Connector J7:** Connect the coaxial cable to the BNC connector (not supplied) and then connect it to connector J5.

The terminals accept cables with sections between 1.5mm<sup>2</sup> (16 AWG) and 0,5mm<sup>2</sup> (30 AWG).

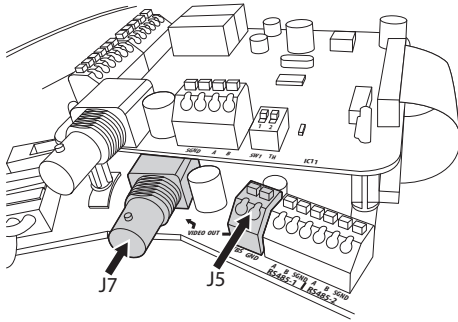


Fig. 12

### 6.5.2 Connecting the secondary video

Connect the coaxial cable to the BNC connector (not supplied) and then connect it to connector CN3.

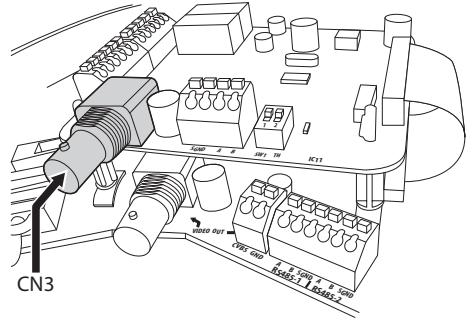


Fig. 13

### 6.5.3 Video signals output (models with double camera)

Video outputs description:

- **Main video:** The output is used to transmit the video signal of the integrated module (connectors J5, J7).
- **Secondary video:** The output is used to transmit the video signal of the thermal module (connector CN3)

### 6.5.4 Video signal output (only for models with thermal camera)

Video outputs description:

- **Main video:** In all models fitted with thermal camera only, the main video output is used for the transmission of the thermal camera video signal (connectors J5, J7).
- **Secondary video:** The secondary video signal is not used (connector CN3)

## 6.6 Connecting the direct control line of the thermal camera RS-485-3 (only for models with double camera)

The thermal camera can be externally controlled by the serial line (CN4, 8.1.16 Thermal Camera Menu, page 42).

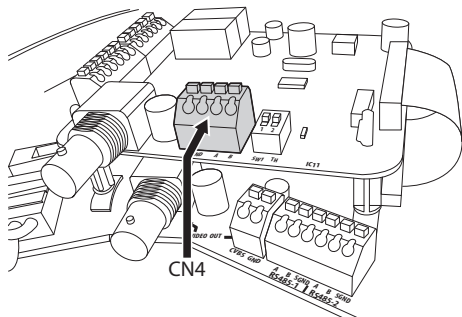


Fig. 14

## 6.7 Setting the DS1 video format (only for thermal camera versions)

Dip-switch 1 selects the output video format type.

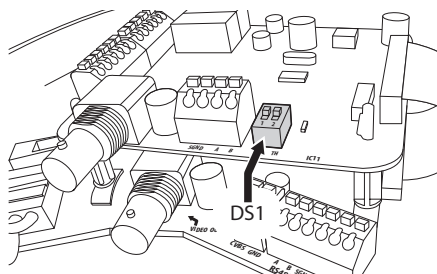


Fig. 15

VIDEO AND TELEMTRY CONFIGURATION (DS1)			
Description	SW1	SW2	Configuration
Video signal format	On	–	PAL video format
	Off	–	NTSC video format

Tab. 5

## 6.8 Termination of the RS-485-3 serial line (DS1)

Dip-switch 2 enables the termination (120 Ohm) of the serial line.

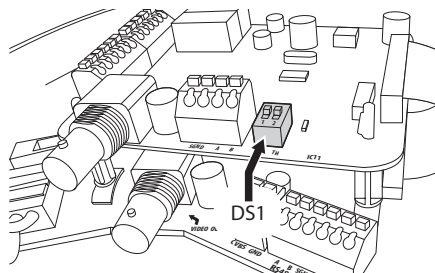


Fig. 16

VIDEO AND TELEMTRY CONFIGURATION (DS1)			
Description	SW1	SW2	Configuration
Serial line termination	–	On	RS-485-3 termination enabled
	–	Off	RS-485-3 termination disabled

Tab. 6

## 6.9 Washing system connection

- i** For further details on configuration and use, refer to the relative manual.

---

- i** When the washing system is enabled, the relay 2 is used exclusively for the activation of the pump (8.1.13 Washer Menu, page 41).

## 6.10 Fixing the upper body

Point the self-centering connector (01) of the upper unit. Point the side set (02) so that it faces the frontal vision of the camera. Position the upper part on the base in the same direction shown in the figure.

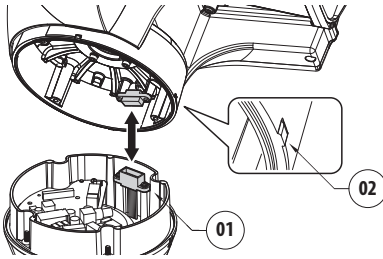


Fig. 17

The side sets on the base and on the upper unit are thus aligned in the only possible position.

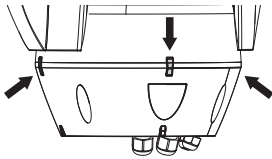


Fig. 18

Fasten the upper unit (01) to the base (02) by means of the fastening screws (03), the notched washers (04) and the flat washers (05). Make sure that the base gasket is in position and in good state (06).

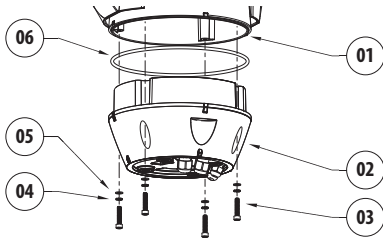


Fig. 19



**Apply a Loctite 243® type thread-locker on the holes of the screws.**



**Pay attention to the fixing. Tightening torque: 4Nm.**

## 6.11 Hardware configuration

### 6.11.1 Opening the configuration door

Before powering the device it must be configured correctly by setting the dip-switches inside the configuration window. Open the hatch by undoing the screws as shown in figure.

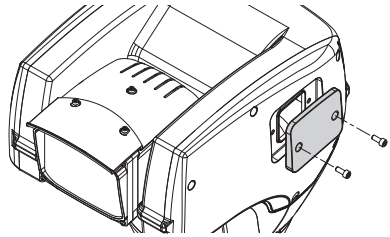


Fig. 20



### 6.11.2 Setting the configuration check mode (DIP 1)

SW 1=ON: Display Configuration. To be used only to verify the configuration at the end of the setting. To be used only to verify the configuration at the end of the setting. During normal operation make sure the lever is on OFF (SW 1=OFF).

### 6.11.3 Baud rate configuration

To set the baud rate operate on DIP 1.

Switches 4, 3 and 2 are used to select the communication rate of the device.

BAUD RATE CONFIGURATION (DIP 1)						
Description	SW 1	SW 2	SW 3	SW 4	SW 5-6-7-8	Configuration
Baud rate selection	-	ON	ON	ON	-	38400 baud
	-	OFF	ON	ON	-	19200 baud
	-	ON	OFF	ON	-	9600 baud
	-	OFF	OFF	ON	-	4800 baud
	-	ON	ON	OFF	-	2400 baud
	-	OFF	ON	OFF	-	1200 baud
	-	ON	OFF	OFF	-	600 baud
	-	OFF	OFF	OFF	-	300 baud
Configurations display	ON	-	-	-	-	Display enabled
	OFF	-	-	-	-	Display disabled

Tab. 7

### 6.11.4 Setting of the serial communication lines

To set the serial communication lines operate on DIP 1.

The product is provided with the following serial communication lines:

- RS-485: 2 lines

The serial lines configuration must be carried on through the following dip-switches:

- DIP 1: SW 5-SW 6

SETTING OF THE SERIAL COMMUNICATION LINES (DIP 1)					
Description	SW 1-2-3-4	SW 5	SW 6	SW 7-8	Configuration (see related chapters)
Serial line	-	ON	ON	-	Two-way RS-485 TX/RX line
	-	OFF	ON	-	Line RS-485-1 reception, line RS-485-2 repetition
	-	ON	OFF	-	Two-way RS-422 line
	-	OFF	OFF	-	One-way RS-485 line

Tab. 8

### 6.11.4.1 Two-way RS-485 TX/RX line

With this setting it is possible to obtain a bi-directional, half/duplex, communication on the RS-485-1 line.

The RS-485-2 serial line is not used.

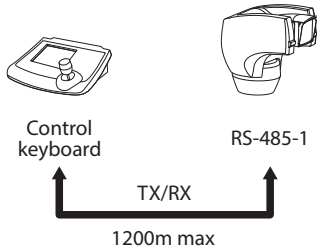


Fig. 21

### 6.11.4.2 Line RS-485-1 reception, line RS-485-2 repetition

With this type of setting it is possible to connect more than one device in cascade. The signal is repeated from every unit, making it possible to markedly increase total distance.

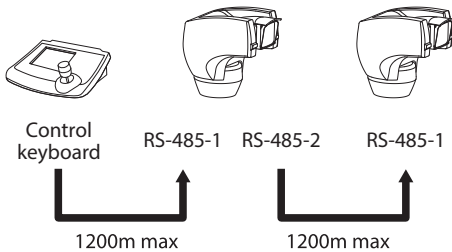


Fig. 22

**i** This configuration can be used with one-way protocols.

**i** This configuration does not allow the remote updating of the firmware.

### 6.11.4.3 Two-way RS-422 line

This setting allows full duplex communication according to the RS-422 standard.

Line RS-485-1 is always in receiving mode (RS-422-RX).

Line RS-485-2 is always in transmission mode (RS-422-TX).

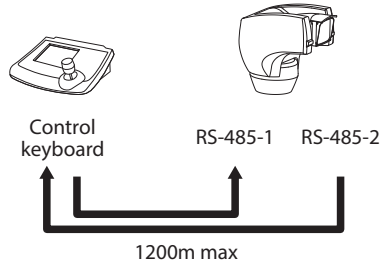


Fig. 23

### 6.11.4.4 One-way RS-485 line

The first line (RS485-1) will operate according to the settings in the Address, Baudrate and Protocol dip-switch.

The RS-485-2 serial line is not used.

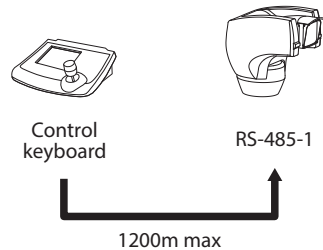


Fig. 24

**i** This configuration can be used with one-way protocols.

**i** This configuration does not allow the remote updating of the firmware.

## 6.11.5 Serial line terminations

To set the serial line terminations operate on DIP 1.

The board has two DIP switches used to configure the serial line terminations (120 Ohm) (Tab. 9, page 21).

Every peripheral that is situated at the end of a line must be terminated using the appropriate dip-switch in order to prevent signal reflection and distortion.

SERIAL LINE TERMINATIONS (DIP 1)				
Description	SW 1-2-3-4-5-6	SW 7	SW 8	Configuration
Serial line terminations	-	-	ON	RS-485-2 line, termination enabled
	-	-	OFF	RS-485-2 line, termination disabled
	-	ON	-	RS-485-1 line, termination enabled
	-	OFF	-	RS-485-1 line, termination disabled

Tab. 9

## 6.11.6 Protocol configuration



The protocol must be set to **NETWORK** in case of versions with digital video encoder.

To set the protocol operate on DIP 3.

The Pan & Tilt can be controlled via various protocols.

PROTOCOL CONFIGURATION (DIP 3)				
SW 1	SW 2	SW 3	SW 4	Configuration
OFF	ON	OFF	OFF	AMERICAN DYNAMICS
OFF	OFF	ON	OFF	ERNITEC
OFF	ON	ON	OFF	NETWORK
ON	OFF	ON	OFF	PANASONIC
ON	OFF	OFF	OFF	PELCO D
OFF	OFF	OFF	OFF	VIDEOTEC MACRO

Tab. 10

## 6.11.7 Address configuration

To set the address operate on DIP 2.

It is possible to set the pan & tilt address: from 1 a 1023. Binary code is used to select the address, using the dip-switches (A Appendix - Address table, page 65).

## 7 Switching on



The automatic pre-heating (De-Ice) process could be started whenever the device is switched on and the air temperature is below 0°C. This process is used to ensure that the device works properly even at low temperatures. The duration ranges between 60 and 120 minutes, depending on conditions.

The unit is switched on by connecting the power supply.

To switch off the unit disconnect the power.

### 7.1 First start-up



**Make sure that the unit and other components of the installation are closed so that it is impossible to come into contact with live parts.**



**Make sure that all parts are fastened down firmly and safely.**

The first time the device is switched on we recommend making sure it is configured correctly.

To do this, disconnect the power supply, remove the dip-switch protection window and set the Display Configuration dip-switch rocker (DIP1, SW1) to ON.

Power the device. After a few seconds, you can check the configuration set on the monitor..

After completing the check, switch off the device and re-toggle the Display Configuration dip-switch rocker (DIP1, SW1).

Close the door and re-connect the power supply.

## 7.2 Checks list



Contact the assistance service if one of the checks fails the test (ERR). The message “- -” means that the pan & tilt is not fitted with the described option.



The content of this chapter does not apply to the versions with digital video encoder.

While it is switching on, the device displays a list of the checks it has to carry out before starting normal operation.

```
STARTUP
Reading Parameters...OK
Zero axis.....OK
Camera.....36x.OK
Temperature probe...OK
IR Spotlight.....--
Wiper.....--
Optional Board.....--
```

Fig. 25

## 8 Configuration

The product can be configured using one of the following tools:

- OSM interface (On Screen Menu): Configuration via the text on the analogue video signal.
- Software interface: Configuration via the application installed on PC.
- Web interface: Configuration via the browser.

### 8.1 OSM interface (On Screen Menu)

#### 8.1.1 Using the OSM

During normal operation of the unit, you can activate the OSM to select and configure advanced functions.. For further information, refer to the manual of the keyboard used and to the relative chapter. (10.13 Special controls, page 52).

Exit the OSM with Wide Zoom (Zoom-).

---

**i** This is a dynamic self-configuration menu based on the Pan & Tilt model.

---

#### 8.1.1.1 How to use the joystick

All operations in the menus are carried out using the joystick.

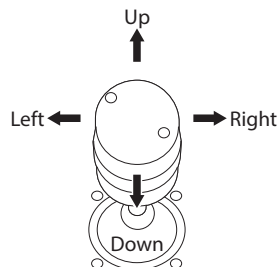


Fig. 26 Pan & tilt.

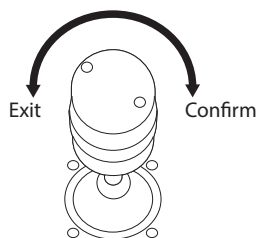


Fig. 27 Wide Zoom and Tele Zoom.

---

**i** If you use control keyboards with 2-axes joystick, use the Wide Zoom and Tele Zoom buttons to Exit and Confirm.

---

## 8.1.2 How to move around the menus

Each page of the OSM shows a list of parameters or sub-menus that can be selected by the operator. Move the cursor with the joystick (up and down) to scroll the various parameters .

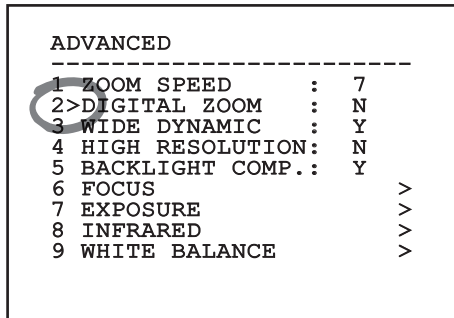


Fig. 28

The symbol > at the end of a line indicates the presence of a specific submenu. To enter the submenu just confirm the menu item. To exit the submenu use the Exit function (Zoom Wide).

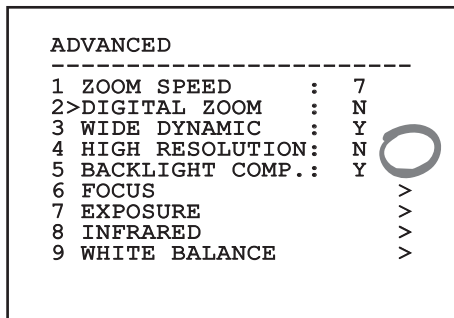


Fig. 29

## 8.1.3 How to modify the parameters

Move the cursor to the parameter to be changed and confirm. The field will start flashing, indicating that it is in change mode. Use the joystick (up and down) to show the possible options.

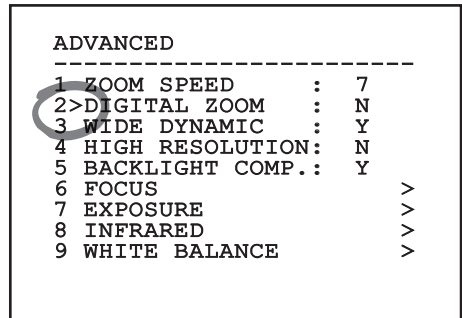


Fig. 30

Confirm after having identified the option required.

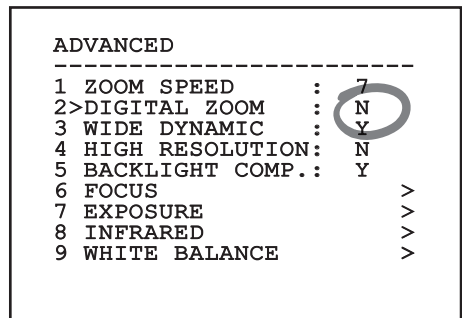


Fig. 31

The field will stop flashing to confirm the selection made.

## 8.1.4 How to change the numeric fields

Move the cursor to the parameter to be changed and confirm.

```
EDIT PRESET
-----
1 NR.   :      1
2 ON    :      N
3>PAN   :+   0.00
4 TILT  :+   0.00
5 ZOOM  :      0
6 FOCUS:  4096
7 SPEED:  100.0
8 PAUSE :      1
9 TEXT  : Text 001
```

Fig. 32

The first digit in the numeric field to be changed will flash and the last line of the display will show the accepted limits for the field. Move in the field (left and right) and change the sign or the numeric value (up and down).

```
EDIT PRESET
-----
1 NR.   :      1
2 ON    :      N
3>PAN   :+000.00
4 TILT  :+  0.00
5 ZOOM  :      0
6 FOCUS:  4096
7 SPEED:  100.0
8 PAUSE :      1
9 TEXT  : Text 001
min:-180.00 max:+179.99
```

Fig. 33

After making the change, confirm. The cursor returns to the left and the modified digit will stop flashing. The field will be forced to the minimum or maximum value permitted if an unexpected value is entered.

## 8.1.5 How to change text

Move the cursor to the parameter to be changed and confirm.

```
EDIT ZONE
-----
1 NR    :      1
2 START:+ 0.00
3 STOP :+  0.00
4>TEXT :TXT AREA1
```

Fig. 34

The text editing display will open. The arrow symbol is placed under the character that can be modified, whilst cursor > is positioned on the left of the selected character.

```
EDIT TEXT: AREA
-----
Text: TEXT AREA1
>A B C D E F G   ERASE
  H I J K L M N   SAVE
  O P Q R S T U   EXIT
  V W X Y Z 0 1   abc
  2 3 4 5 6 7 8
  9 : ; . / ? !
  \ + - * / = "
  < > SPACE ← →
```

Fig. 35

You can move inside the menu using the joystick.

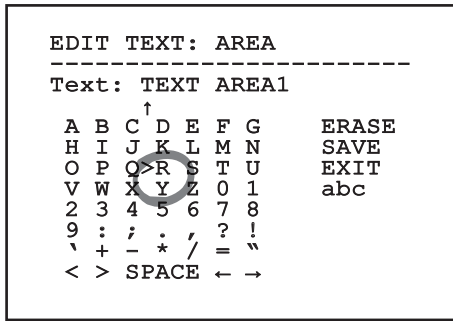


Fig. 36

The Confirm command (Zoom Tele) inserts the desired character.

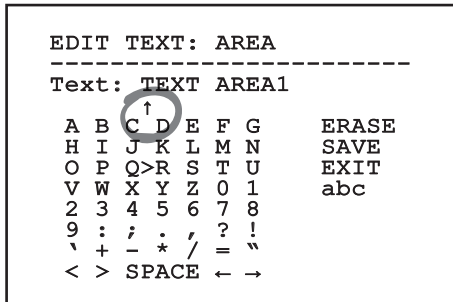


Fig. 37

Use:

- **ERASE:** Delete the whole text string.
- **SAVE:** Save the new text before exiting the menu.
- **EXIT:** Exit the menu.
- **abc:** Displays lower-case characters.

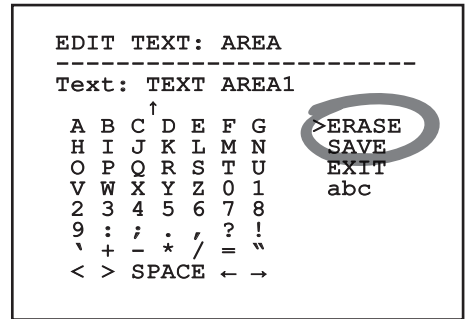


Fig. 38

To exit the menu you can also use the Zoom Wide key.



## 8.1.6 Configuration via OSM

The screens for configuring the product are illustrated below.

### 8.1.7 Main Menu

From the main menu it is possible to enter menus for configuring the device.

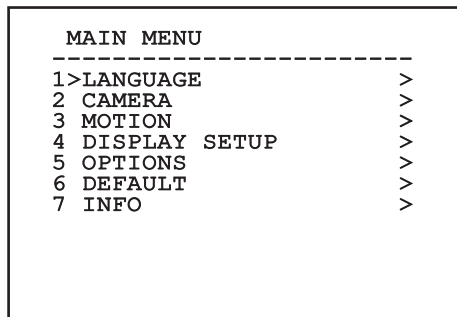


Fig. 39

### 8.1.8 Language Selection Menu

The menu allows you to select the language.

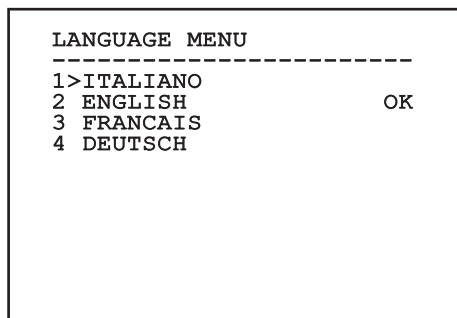


Fig. 40

## 8.1.9 Camera menu

1. **Configuration:** Sets one of the default configurations for the SONY module:
  - **Standard:** Sets the standard operating mode for the camera.
  - **Low Light:** Sets the operating mode for dimly lit environments.
  - **Far Mode:** Sets the operating mode for large areas. It enables the proportional zoom and the digital zoom.
  - **Custom:** Signals that the user has manually selected the parameters of the camera.
2. **Area Titling:** Allows access to the area titling submenu.
3. **Masking:** Allows access to the dynamic masking submenu.
4. **Advanced:** Allows access to the advanced settings submenu of the SONY module.

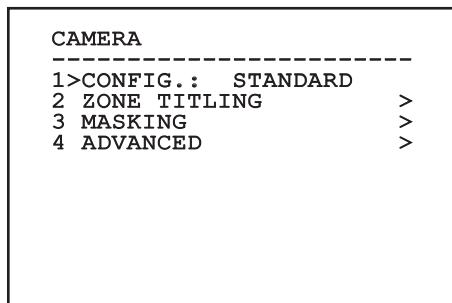


Fig. 41

### 8.1.9.1 Zone Titrting Menu

This function allows setting up to eight (variable dimension) areas with titling option.

1. **Enabling:** To enable onscreen display of the message associated with the area currently being shown.
2. **Edit Area:** Allows access to the zone parameter setting submenu .

```

ZONE TITLING
-----
1>ENABLING: N
2 EDIT ZONE >
  
```

Fig. 42

### 8.1.9.2 Zone Titrting Menu (Edit Area)

Once inside the menu it is possible to set the following parameters:

1. **Number:** Selects the area to be edited.
2. **Start:** Sets the initial position of the area.
3. **Stop:** Sets the final position of the area.
4. **Text:** Modifies the text which is displayed when moving within the zone.

```

EDIT ZONE
-----
1>NR. : 1
2 START:+ 0.00
3 STOP :+ 0.00
4 TEXT :TXT AREA1
  
```

Fig. 43

**Example:** To enable titling of zone 1 when the device is between +15° and +45°, it is necessary to:

- Enable area titling by setting Y as the value of Enabling under the Area Titrting menu.
- Set 1 as the value of parameter Nr under the Edit Area menu.
- Set +15.00 as the value of parameter Start under the Edit Zone menu.
- Set +45.00 as the value of parameter Stop under the Edit Zone menu.
- If necessary, edit the displayed text by selecting Text under the Edit Zone menu.

**i** **Setting the Start and Stop values of the Edit Zone menu to zero will disable text display. If there are overlapping areas, the area with the highest number will prevail.**

**i** **To define zones proceed in a clockwise direction as shown in the figure.**

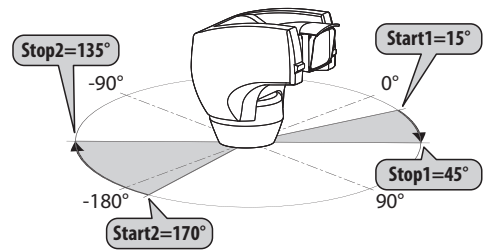


Fig. 44

**i** **The default name and position of the zones of the pan & tilt refer to the four cardinal points. The NORTH position can be modified by means of the Offset Pan parameter in the movement menu (8.1.10 Movement Menu, page 35).**

### 8.1.9.3 Masking Menu

Dynamic masking allows the creation of up to a maximum of 24 masks so as to obtain the masking of certain areas defined by the user.

Masks are defined in space and take account of the horizontal, vertical and zoom depth position when making the settings.

The unit automatically maintains the position and dimension of the masking, based on the displayed area.

It is possible to simultaneously display up to 8 masks.

If the device is used at maximum speed, video signal updating times become critical and it is necessary to create masks larger than the object so that it remains masked for longer during the passage and therefore cannot be seen.

**i** To ensure full functionality, the tilt position of the masks must always be between -70 and +70 degrees; in addition, the size of the mask must be double the size of the object to be masked (both height-wise and width-wise).

It allows you to configure the following parameters:

1. **Mask Colour:** Allows you to choose the colour of the masks.
2. **Edit Masks:** Allows access to the Edit Masks submenu and set the dynamic masking parameters.

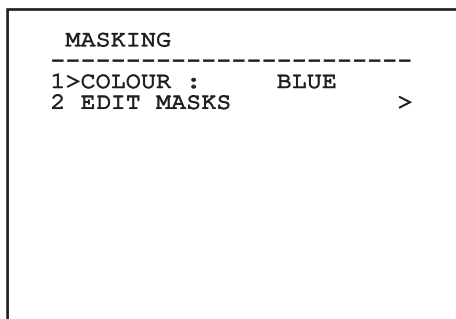


Fig. 45

### 8.1.9.4 Masking Menu (Edit Masks)

It allows you to configure the following parameters:

1. **Mask Number:** Allows you to choose the mask on which to operate.
2. **Enable Mask:** Enables or disables the selected mask.
3. **Edit Mask:** Allows the creation or editing of a mask.

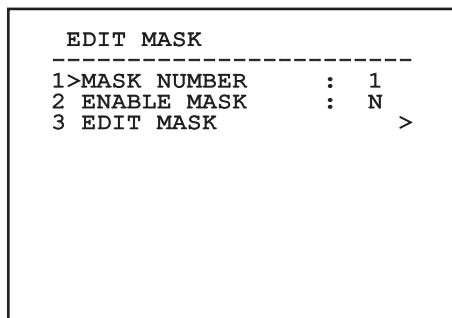


Fig. 46

Selecting the option Edit Mask in the menu makes it possible to set new values for the selected mask.

### 8.1.9.5 How to create a new mask

Choose a disabled mask by selecting Mask Number from the Edit Masks menu. Select Edit Mask to edit it ( Fig. 46, page 29).

In the following example we shall mask a flower.

- Press the Iris Close button to pass from Masking mode to Move Camera mode.

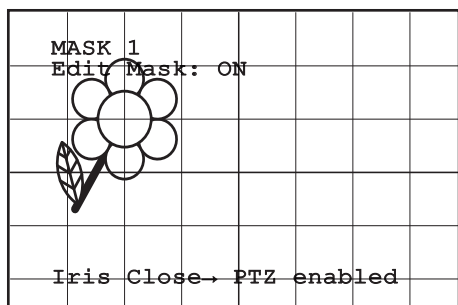


Fig. 47

- Operate the joystick on the keyboard to move the unit and if necessary operate the zoom to centre the flower on the screen.

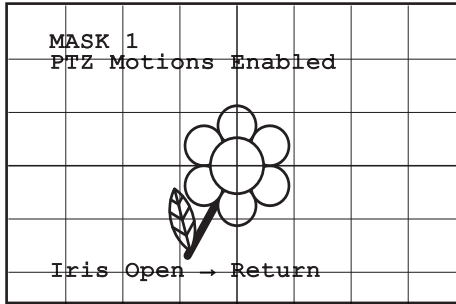


Fig. 48

- When the desired result is obtained press the Iris Open.

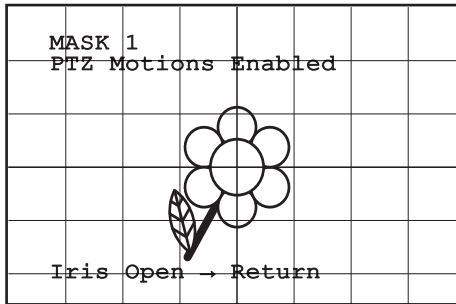


Fig. 49

- A small rectangle will appear. Operate the joystick (Pan & Tilt) to enlarge the rectangle until it covers the whole flower.

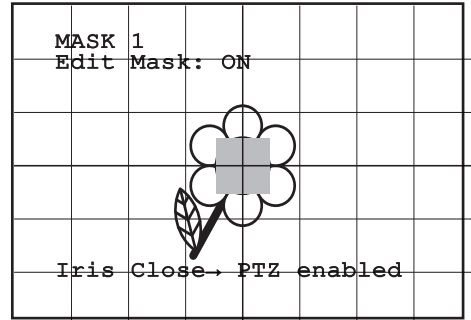


Fig. 50

- When the desired result is obtained confirm by turning the zoom to tele.

### 8.1.9.6 How to modify a mask

Choose an enabled mask by selecting Mask Number from the Edit Masks menu (Fig. 46, page 29). Select Edit Mask to edit it.

- Operate the joystick (Pan & Tilt) to enlarge or reduce the rectangle until the desired effect is obtained.

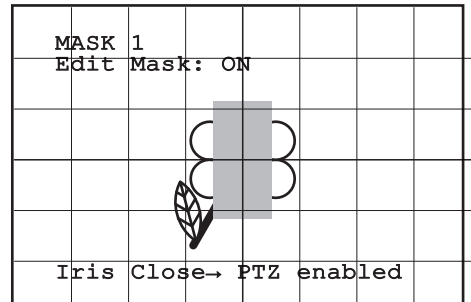


Fig. 51

- Confirm by turning the zoom to tele.

### 8.1.9.7 Advanced Setting Menu

This menu is used to configure the SONY module.

1. **Zoom:** Allows access to the Zoom submenu.

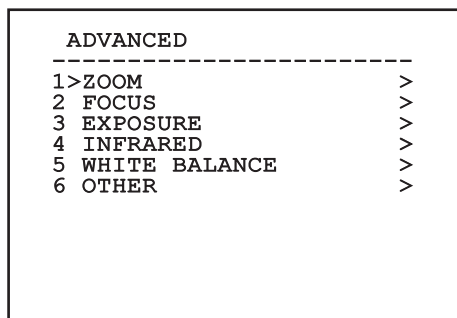


Fig. 52

### 8.1.9.8 Advanced Setting Menu (Zoom)

1. **Zoom Speed:** Sets the speed of the zoom. The speed ranges between 0 (minimum speed) and 7 (maximum speed).
2. **Digital Zoom:** Enables the digital zoom.

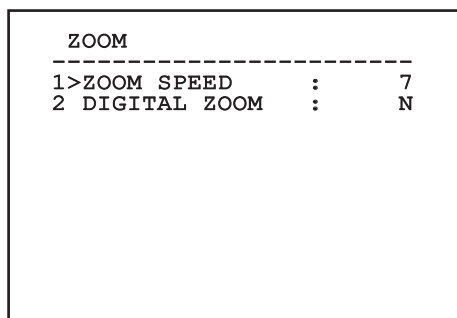


Fig. 53

### 8.1.9.9 Advanced Setting Menu (Focus)

It allows you to configure the following parameters:

1. **Focus Speed:** Sets the speed of the Focus. The speed ranges between 0 (minimum speed) and 7 (maximum speed).
2. **Autofocus:** Enables or disables the autofocus. When on, it is to automatically load Autofocus at any positioning or movement of the zoom, depending on the selected operating mode.
3. **Autofocus Type:** Sets the type of Autofocus. The possible values are:
  - **Normal:** Autofocus is always enabled.
  - **Interval:** The autofocus function is loaded at regular intervals. The Interval is set every 5 seconds.
  - **Trigger:** Autofocus is loaded at every PTZ movement. This is the recommended solution.
4. **Sensitivity:** Sets the level of sensitivity. The possible values are:
  - **Normal:** Focusing at the highest possible speed. This is the recommended solution.
  - **Low:** Slowed-down focusing. It is useful in case of dim lighting as it makes the image more stable.

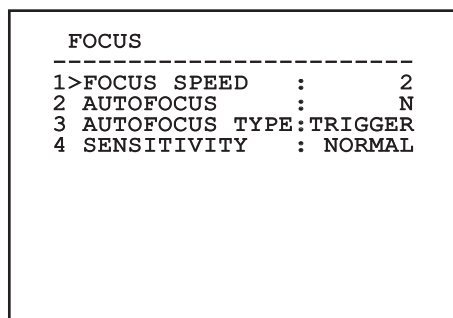


Fig. 54

### 8.1.9.10 Advanced Setting Menu (Exposure)

It allows you to configure the following parameters:

- 1-5. **Mode:** Sets the type of exposure control Automatic, Manual, Shutter, Iris and Bright.
6. **Auto Slowshutter:** If enabled, this function automatically increases the exposure time to improve night vision.
- 7-8. **Compensation, Compensation Value:** Sets the exposure compensation.
9. **Backlight Compensation:** Enables the Backlight Compensation function. It improves vision of any dark zone in the image.

In automatic mode it is possible to enable Backlight compensation.

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.

The chosen exposure operating mode is associated to all presets.

The recommended setting is Automatic.

EXPOSURE	
-----	
1>MODE :	AUTOMATIC
6 AUTO SLOW SHUTTER :	Y
7 COMPENSATION :	N
8 COMPENSATION VALUE :	7
9 BACKLIGHT COMP. :	N

Fig. 55

The following table shows the inserted values with the corresponding effects on the SONY module lens.


CORRESPONDING VALUES/EFFECTS ON THE SONY MODULE LENS					
Value	Shutter		Iris	Gain	Exposure compensation
	NTSC	PAL			
0	1/1	1/1	Closed	-3db	-10,5db
1	1/2	1/2	F28	0db	-9db
2	1/4	1/3	F22	2db	-7,5db
3	1/8	1/6	F19	4db	-6db
4	1/15	1/12	F16	6db	-4,5db
5	1/30	1/25	F14	8db	-3db
6	1/60	1/50	F11	10db	-1,5db
7	1/90	1/75	F9.6	12db	0db
8	1/100	1/100	F5	14db	1,5db
9	1/125	1/120	F6.8	16db	3db
10	1/180	1/150	F5.6	18db	4.5db
11	1/250	1/215	F4.8	20db	6db
12	1/350	1/300	F4	22db	7,5db
13	1/500	1/425	F3.4	24db	9db
14	1/725	1/600	F2.8	26db	10,5db
15	1/1000	1/1000	F2.4	28db	
16	1/1500	1/1250	F2		
17	1/2000	1/1750	F1.6		
18	1/3000	1/2500			
19	1/4000	1/3500			
20	1/6000	1/6000			
21	1/10000	1/10000			

Tab. 11

### 8.1.9.11 Advanced Setting Menu (Infrared)

It allows you to configure the following parameters:

1. **IR Mode:** If set to OFF it forces the day mode in a continuous manner (the switching on of the illuminator, if present, is carried out by means of the light sensitive switch or by means of the control on the keyboard). If set to ON it forces the night mode in a continuous manner. If set to Auto, it activates the automatic switching of the camera.
2. **Night Level:** Sets the detection threshold of the light conditions for the night mode switching. Lower values correspond to lower lighting levels.
3. **Night Delay:** Sets the detection time of the darkness conditions, expressed in seconds, before switching to night mode.
4. **Day Level:** Sets the detection threshold of the light conditions for the day mode switching. Lower values correspond to lower lighting levels.
5. **Day Delay:** Sets the detection time of the light conditions, expressed in seconds, before switching to night mode.
6. **Cut Off Filter:** If it is set on S, the P&T works regularly. If it is set on N, the camera does not switch between night and day mode, but it works only in day mode. In the event it is set to N, the illuminator (if available) is switched on and off according to the settings of the IR Mode item.

 **To avoid false switching, we recommend choosing the higher day switching threshold and delay values.**

INFRARED		
-----		
1>IR MODE	:	AUTO
2 NIGHT LEVEL	:	5
3 NIGHT DELAY	:	5
4 DAY LEVEL	:	20
5 DAY DELAY	:	30
6 CUT OFF FILTER:		Y

**Fig. 56**

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.



**The automatic Day/Night switching mode of the module is strongly inadvisable when swinging is subject to repeated light variations during the night period, for example during patrol, or due to the switching on of auxiliary lighting devices. Those situations can cause numerous unwanted switching, compromising in this way the functioning of the module.**

### 8.1.9.12 Advanced Setting Menu (White Balance)

It allows you to configure the following parameters:

1. **Mode:** Sets the type of control on White Balance. The possible values are:
  - **Automatic:** Sets automatic white balance. This is the recommended solution.
  - **Manual:** Enables manual setting of red and blue gains.
  - **Outdoor:** Sets fixed red and blue gains for outdoor applications.
  - **Indoor:** Sets fixed red and blue gains for indoor applications.
  - **ATW:** Enables Auto Tracing White Balance.
2. **Red Value:** Sets the value of the red gain.

WHITE BALANCE		
-----		
1>MODE	:	MANUAL
2 RED VALUE	:	0
3 BLUE VALUE	:	0

Fig. 57

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.

### 8.1.9.13 Advanced Setting Menu (Other)

1. **Sharpness:** Sets the sharpness value of the image.
2. **High Resolution:** Enables the High Resolution function. The output video signal has a higher resolution.
3. **Wide Dynamic:** Enables the Wide Dynamic function. It improves vision when some zones within the frame are much brighter than others.
4. **Stabilizer:** Enables the electronic image stabilization function.
5. **Progressive Scan:** Enables the Progressive Scan function. Gives a more stable image when the Pan & Tilt is connected to a video server.
6. **Noise Reduction:** Sets the noise reduction level. Vary the parameter according to the environmental conditions to obtain a higher contrast image.

OTHER		
-----		
1 SHARPNESS	:	6
2 HIGH RESOLUTION	:	N
3 WIDE DYNAMIC	:	OFF
4 STABILIZER	:	N
5 PROGRESSIVE SCAN	:	N
6 NOISE REDUCTION	:	2

Fig. 58



## 8.1.10 Movement Menu

1. **Configuration:** Sets one of the default configurations of the pan & tilt.
  - **Standard:** Sets the standard movement speed.
2. **Offset Pan:** The pan & tilt has a mechanically defined 0° position. The Offset Pan function allows the definition of a different 0° position using software.
3. **Manual Control:** To access the submenus operating the parameters associated with the manual movements of the device.
4. **Preset:** To access the submenus used to to edit Preset values.
5. **Patrol:** To access the submenus used to edit Patrol values.
6. **Autopan:** To access the submenus used to edit Autopan values.
7. **Motions Recall:** To access the submenu which manages automatic load of the movements.
8. **Advanced:** Allows access to the advanced settings submenu.

```

MOTION
-----
1>CONFIG.      : STANDARD
2 OFFSET PAN:  + 0.00
3 MANUAL CONTROL  >
4 PRESET         >
5 PATROL        >
6 AUTOPAN       >
7 MOTIONS RECALL >
8 ADVANCED      >
  
```

Fig. 59

### 8.1.10.1 Manual Control Menu

1. **Maximum Speed:** Sets the maximum manual speed.
2. **Fast Mode:** Enables the Fast mode. When enabled, this option is used to move fastly the pan & tilt by moving the joystick to the limit stop.
3. **Speed With Zoom:** Enables the option Speed with Zoom. When enabled, this parameter automatically slows down the Pan & Tilt speed, based on the Zoom factor.
4. **Tilt Factor:** Sets the reduction factor of the tilt axis manual speed.
5. **Autoflip:** Enables the autoflip function (i.e. when the tilt reaches the end of the stroke, it automatically rotates the pan & tilt by 180°), making it easier to follow the objects along corridors or roads.
6. **Movement Limits:** To access the Limits menu.

```

MANUAL CONTROL
-----
1>MAXIMUM SPEED   :100.0
2 FAST MODE      :    Y
3 VEL. WITH ZOOM  :    N
4 TILT SCALE FACT.:    2
5 AUTOFLIP       :    Y
6 MOVEMENT LIMITS >
  
```

Fig. 60

### 8.1.10.2 Manual Control Menu (Limits)

It allows you to configure the following parameters:

1. **Pan Limits:** Enables the limits of Pan.
2. **Pan Start:** Sets the start limit of Pan.
3. **Pan End:** Sets the end limit of Pan.
4. **Tilt Limits:** Enables the limits of Tilt.
5. **Tilt Start:** Sets the start limit of Tilt.
6. **Tilt End:** Sets the end limit of Tilt.

```

LIMITS
-----
1>PAN LIMITS      :      N
2 PAN START      : +  0.00
3 PAN END        : +  0.00
4 TILT LIMITD    :      N
5 TILT START     : +  0.00
6 TILT END       : +  0.00
  
```

Fig. 61

### 8.1.10.3 Preset Menu

1. **Edit Preset:** To access the Modifica Preset (Preset Modification) menu.
2. **Utility Preset:** To access the Utilità Preset (Preset Utility) menu

```

PRESET
-----
1>EDIT PRESET      >
2 PRESET UTILITIES >
  
```

Fig. 62

### 8.1.10.4 Preset Menu (Edit Preset)

It allows you to configure the following parameters:

1. **Number:** The Preset number to be edited.
2. **Enabling:** Enabling preset.
3. **Pan:** Pan position in degrees.
4. **Tilt:** Tilt position in degrees.
5. **Zoom:** Zoom position.
6. **Focus:** Daytime and night-time position of the focus.
7. **Speed:** The speed at which the position is reached when preset is recalled from the Patrol and Scan function.
8. **Pause:** Sets the dwell time in seconds before starting the next movement in Patrol.
9. **Text:** The text that is displayed when the preset position is reached.

```

EDIT PRESET
-----
1>NR.      :      1
2 ON       :      N
3 PAN      :+  0.00
4 TILT     :+  0.00
5 ZOOM     :      0
6 FOCUS    :  4096 - 5600
7 SPEED    :  100.0
8 PAUSE    :      1
9 TEXT     : Text 001
  
```

Fig. 63

From the menu it is possible to directly store the preset by sending the Iris Close command that enables the pan & tilt movements.

### 8.1.10.5 Preset Menu (Utility Preset)

It allows you to configure the following parameters:

1. **Daytime A.Focus:** Enables the use of the autofocus when loading the preset in daytime mode. To guarantee fast and accurate focusing of the image, disable the automatic focus.
2. **Night-time A.Focus:** Enables the use of the autofocus when loading the preset in night-time mode. We advise enabling the automatic focus when the pan & tilt is fitted with an infrared illuminator, as the focal point varies depending on whether the light is visible or infrared.
3. **Scan Speed:** This is the reference speed used when a preset position is recalled by the Scan function.
4. **Default Speed:** Changes the default speed of the Presets. This value is used based on the function Set Speed? to assign the same speed to all Presets .
5. **Default Dwell Time:** Changes the default pause of the Presets. This value is used based on the function Set Dwell Time? to assign all Presets the same pause time.
6. **Set Speed:** To assign all Presets the same default speed.
7. **Set Dwell Time:** To assign all Presets the same default dwell time.

```

PRESET UTILITIES
-----
1>AUTOFOCUS DAY      :      N
2 AUTOFOCUS NIGHT:      Y
3 SCAN SPEED        : 200.0
4 DEFAULT SPEED     : 100.0
5 DEFAULT DWELL     :      3
6 SET SPEED?
7 SET PAUSE?
  
```

Fig. 64

### 8.1.10.6 Patrol Menu

1. **First Preset:** First preset of the Patrol sequence.
2. **Last Preset:** Last preset of the Patrol sequence.
3. **Random Mode:** Enables random execution. The sequence is re-calculated on a continuous basis.

```

PATROL
-----
1>FIRST PRESET      :      1
2 LAST PRESET       : 250
3 RANDOM MODE       :      N
  
```

Fig. 65

### 8.1.10.7 Autopan Menu

1. **Preset Outward Movement:** Sets the initial position of the Autopan.
2. **Preset Return Movement:** Sets the final position of the Autopan.
3. **Outward Movement Speed:** Sets the speed of the outward movement of the Autopan.
4. **Return Speed:** Sets the speed of the return of the Autopan.

```

AUTO-PAN
-----
1>PRESET OUTWARD:      1
2 PRESET RETURN :      2
3 OUTWARD SPEED : 20.0
4 RETURN SPEED  :100.0
  
```

Fig. 66

### 8.1.10.8 Motion Recall Menu

The unit can be configured so that, after a period of non-use, it carries out a movement function selected by the operator.

1. **Movement Type:** Type of movement to be loaded (None, Home, Autopan, Patrol, Tour 1, Tour 2, Tour 3).
2. **Movement Delay:** The standby time of the joystick is expressed in seconds.

```

MOTION RECALL
-----
1>MOVEMENT TYPE :   NONE
2 MOVEMENT DELAY:    60
  
```

Fig. 67

### 8.1.10.9 Advanced Menu

1. **Static Control:** Enables control of the position only when the pan & tilt is stopped
2. **Dynamic Control:** Enables control of the position only when the pan & tilt is moving
3. **Cyclic Homing:** If other than zero, it sets a new homing procedure after the specified number of hours.
4. **Economy Mode:** Reduces the motor torque when the pan & tilt is not moving. Do not enable in presence of strong wind or vibrations.

```

ADVANCED
-----
1>STATIC CONTROL   :   Y
2 DYNAMIC CONTROL :   Y
3 CYCLIC HOMING   :   0
4 ECO MODE        :   Y
  
```

Fig. 68

### 8.1.11 Display Menu

1. **PTZ Positions:** If not on OFF, it is used to select how the Pan, Tilt and Zoom positions are displayed on the screen. It is possible to select timed (1 S, 3 S and 5 S) or constant (CONST) display.
2. **Preset Name:** If not on OFF, it is used to select how the text associated with the last-reached Preset position is displayed on the screen. It is possible to select timed (1 S, 3 S and 5 S) or constant (CONST) display.
3. **Areas Name:** If not on OFF, it is used to select how the texts associated with active areas are displayed. It is possible to select timed (1 S, 3 S and 5 S) or constant (CONST) display.
4. **Pan & Tilt ID:** If not on OFF, it shows the ID of the pan & tilt.
5. **Received Commands:** If not on OFF, it is used to select how the received serial commands are displayed. It is possible to select timed (1 S, 3 S and 5 S) or constant (CONST) display.
6. **Horizontal Delta:** This moves the menu texts horizontally, for better centring.

7. **Vertical Delta:** This moves the menu texts vertically for better.

```

DISPLAY
-----
1>PTZ POSITIONS      : 1 S
2 PRESET NAME        : 3 S
3 AREAS NAME         : OFF
4 UNIT ID            : CONST
5 RECEIVED COMMAND   : CONST
HORIZONTAL DELTA:    3
VERTICAL DELTA      :    3

```

Fig. 69

### 8.1.12 Options Menu

1. **Ceiling Mount:** When this mode is enabled the image and the movements controls are turned upsidedown.
2. **Alarms:** Allows access to the Alarms menu.
3. **Washer:** Allows access to the Washer menu.

```

OPTION
-----
1>CEILING MOUNT      : N
2 ALARMS              >
3 WASHER              >

```

Fig. 70

### 8.1.12.1 Alarms Menu

- 1-5. **Alarms 1-5:** Allow access to the menus from which it is possible to set the parameters of Alarms 1 to 5.
6. **Alarms State:** Allows access to the Alarms State menu.

```

ALARM
-----
1>ALARM 1          >
2  ALARM 2          >
3  ALARM 3          >
4  ALARM 4          >
5  ALARME 5         >
6  ALARMS STATE    >

```

Fig. 71



If the IR illuminator is fitted, alarm 5 is reserved for the external light sensitive switch and therefore alarm 5 will not be displayed on the screen.

From the Alarms menu it is possible to access one of the menus (Alarms 1-5) to edit the alarms parameters.

From these menus it is possible to set the following values:

1. **Type:** Set the type of contact: normally closed (N.C.) or normally open (N.O.).
2. **Action:** The type of action carried out by the unit when the alarm triggers (Autopan, Patrol, Relay 1, Relay 2, Scan, Tour 1, Tour 2, Tour 3, Washer, Wiper). If Off is selected, the alarm is disabled.
3. **Number:** The preset to be reached when the alarm's type of action is Scan.
4. **Text:** The message that is displayed when the alarm is active.

```

ALARM 1
-----
1>TYPE   :N.C.
2  ACT.  :SCAN
3  NR.   : 1
4  TEXT  :ALARM 1

```

Fig. 72

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.

From the Alarms menu it is possible to access the Alarms State menu where the state of alarms inputs is displayed (CLOSED, contact closed, OPEN, contact open).

```

ALARMS STATE
-----
ALARM 1          CLOSED
ALARM 2          OPEN
ALLARME 3        CLOSED
ALLARME 4        CLOSED
ALLARME 5        CLOSED

```

Fig. 73

### 8.1.13 Washer Menu

The P&T offers the possibility to use a wiper and to operate a pump to clean the glass.

To configure the Washer put the lens of the camera in front of the nozzle of the Washer.

Save a preset (XY) that identifies this position; the preset will be recalled by the pan & tilt when the WASHER function is enabled.

Configure the following parameters:

1. **Enable:** Enabling the Washer function.
2. **Nozzle Preset:** Enter the preset number (XY) corresponding to the nozzle.
3. **Wiper On Delay:** Select the time interval between the pump and wiper.
4. **Washing Length:** Choose the duration of brushing.
5. **Wiper Off Delay:** Choose the duration of brushing without water.

WASHER	
-----	
1>ENABLE	: N
2 NOZZLE PRESET	: 1
3 WIPER-ON DELAY	: 5
4 WASHING DURATION	: 10
5 WIPER-OFF DELAY	: 5

Fig. 74

**i** The enabling of the Washer function reserves the use of Relay 2 to the switching on of the pump and does not allow the association of Relay 2 with an alarm.

### 8.1.14 Default Menu

1. **Delete Setup?:** Resets all the parameters except the Presets.
2. **Delete Preset?:** Deletes all previously stored presets.

DEFAULT	
-----	
1>DELETE SETUP?	
2 DELETE PRESET?	

Fig. 75



The above mentioned operations cause the loss of all previously stored data (i.g. Preset, Patrol, Autopan, Home...).

### 8.1.15 Info Menu

The menu is used to check the configuration of the device and the installed firmware version.

INFO	
-----	
Address:	1
Protocol	: MACRO
RS485-1:	38400 N81 RX
RS485-2:	38400 N81 RIPET
FW:	0a (Apr 14 2009)
HW:	000-0000
Camera	: 36x
PC:	UC1PSSA000A
SN:	109032220029

Fig. 76

## 8.1.16 Thermal Camera Menu

1. **Control:** Sets the type of control on the thermal camera.
  - **Indoor:** The camera configuration is managed by the pan & tilt.
  - **Outdoor:** The camera configuration is managed through the serial line RS-485-3 (only for models with double camera).
2. **Configuration:** To set one of the preset configurations of the thermal camera.
  - **Standard:** Sets the standard configuration of the thermal camera.
  - **High Gain:** Sets the configuration for a higher-resolution image.
  - **Isotherm:** Sets the configuration for highlighting objects within a given temperature range (8.1.16.8 Thermal Analysis Menu (Isotherm), page 47).
  - **Custom:** Signals that the operator has manually chosen the configuration of the thermal camera.
3. **Flat Field Correction:** Allows access to the Flat Field correction management submenu.
4. **Video Setup:** Allows access to the video configuration management submenu.
5. **Gain control:** Allows access to the gain control management submenu.
6. **ROI Setup:** Allows access to the ROI management submenu.
7. **Thermal Analysis:** Allows access to the thermal analysis management submenu.
8. **Status:** Allows access to the submenu containing the technical features of the thermal camera.

```

THERMAL CAMERA
-----
1>CONTROL   :   INTERNAL
2 CONFIG.  :   STANDARD
3 FLAT FIELD CORRECTION>
4 VIDEO SETUP                               >
5 GAIN CONTROL                               >
6 ROI SETUP                                  >
7 THERMAL ANALYSIS                          >
8 STATUS                                       >
  
```

Fig. 77



### 8.1.16.1 Flat Field Correction Menu

The thermal camera is fitted with an internal mechanism which periodically improves the quality of the images called Flat Field Correction (FFC). The parameters which manage this function are:

1. **Flat Field Auto:** Enables the automatic or manual Flat Field correction. When the automatic correction is enabled, the camera carries out a FFC after a given time or temperature change. Vice versa, when the manual correction is set, the FFC operations are carried out when requested by the operator. We advise setting the manual correction at all times.
2. **Interval:** Sets the time that has to elapse before carrying out a FFC when the dynamic gain range is High. The time interval is indicated in frames (33ms for NTSC and 40ms for PAL).
3. **Low Gain Interval:** Sets the time that has to elapse before carrying out a FFC when the dynamic gain range is Low. The time interval is indicated in frames (33ms for NTSC and 40ms for PAL).
4. **Temperature:** Sets the temperature change after which a FFC has to be carried out when the dynamic gain range is High. The temperature change is indicated in 0.1°C intervals.
5. **Low Gain Temperature:** Sets the temperature interval after which a FFC has to be carried out when the dynamic gain range is Low. The temperature change is indicated in 0.1°C intervals.

6. **Gain mode:** Allows the setting of dynamic gain range type:
  - **High:** This setting aims to maximize the contrast and is especially suitable for applications which carry out the video analysis of images.
  - **Low:** This setting increases the dynamic range of the image and diminishes the contrast. It is especially suitable for identifying the hottest elements in an image.
  - **Auto:** This setting allows the camera to switch between High and Low modes depending on the type of image currently being displayed. The parameters in the Gain Change Values menu are used to change the behaviour of this mode (8.1.16.2 Flat Field Correction Menu (Gain Switch Values), page 44).
7. **Do FFC:** Carries out a FFC.
8. **Gain Switch Values:** Allows access to the Gain Switch Values submenu.

```

FLAT FIELD CORRECTION
-----
1>FLAT FIELD AUTO:      Y
2 INTERVAL             : 7200
3 LOW GAIN INTER.:     1350
4 TEMPERATURE          :      5
5 LOW GAIN TEMP.       :     10
6 GAIN MODE             :  ALTO
7 DO FFC?
8 GAIN SWITCH VALUES  >

```

Fig. 78



**We recommend that you do not change the default values which have been set to guarantee high quality images in any operating condition.**

### 8.1.16.2 Flat Field Correction Menu (Gain Switch Values)

Once inside the Gain Switch Values menu it is possible to set one of the following parameters:

1. **High-Low Threshold:** Sets the temperature threshold used by the High-Low Population parameter to force the switching in Low Gain mode. The value is indicated in degrees Celsius.
2. **High-Low Population:** Sets the minimum pixel percentage above which the switching in Low Gain mode is carried out.
3. **Low-High Threshold:** Sets the temperature threshold used by the Low-High Population parameter to force the switching in High Gain mode. The value is indicated in degrees Celsius.
4. **Low-High Population:** Sets the minimum pixel percentage above which the switching in High Gain mode is carried out.

GAIN SWITCH VALUES	
1	>HIGH-LOW THRESH. : 140
2	HIGH-LOW POP. : 20
3	LOW-HIGH THRESH. : 100
4	LOW-HIGH POP. : 95

Fig. 79



We recommend that you do not change the default values which have been set to guarantee high quality images in any operating condition.



The settings of the Gain Change Values Menu are effective only if the Gain mode was set to Auto (8.1.16.1 Flat Field Correction Menu, page 43).

### 8.1.16.3 Video Setup Menu

Once inside the Video Configuration menu it is possible to set one of the following parameters:

1. **Lut Polarity:** Sets the hue of the image shot by the thermal camera.
2. **FFC Warning:** Sets the interval for which a coloured square is displayed on the upper right side of the video when a FFC is about to be carried out. The interval is indicated in frames (33ms for NTSC and 40ms for PAL). A value lower than 15 frames automatically disables the alert.
3. **Digital Zoom:** Sets the type of zoom to be applied to the video signal (OFF, Auto, 2x, 4x). When using the Auto mode, the zoom of the thermal camera automatically adjusts to that of the SONY module.
4. **Dynamic DDE:** Sets the value of the DDE filter, used to improve the sharpness of outline. Typical values range from 17 and 25. Value 17 disables the filter.
5. **Test Pattern:** Enables the pattern test to check the camera electronics.

VIDEO SETUP	
1	>LUT POLARITY: WHITE HOT
2	FFC WARNING : 60
3	DIGITAL ZOOM : AUTO
4	DYNAMIC DDE : 25
5	TEST PATTERN: N

Fig. 80

### 8.1.16.4 Gain Control Menu

Once inside the Gain Control Configuration menu it is possible to set one of the following parameters:

1. **Algorithm:** Sets the type of automatic gain control (AGC) to optimize the image. It is possible to choose between the following algorithms:
  - **Automatic:** Automatically sets the contrast and brightness of the image when environmental conditions change by equalizing the grey scale histogram. The image can be modified by changing the value of the ITT Mean, Max Gain and Plateau Value parameters. This is the default algorithm and it is recommended for normal use of the thermal camera.
  - **Once Bright:** The set brightness level represents the mean of the brightness values of the image when this parameter is selected. The image can be modified by changing the value of the Contrast parameter.
  - **Auto Bright:** The set brightness level represents the mean of the brightness values. Such level is updated in real-time. The image can be modified by changing the values of the Contrast and Compensation parameters.
  - **Manual:** The contrast and brightness levels are manually set by the user.
  - **Linear Histogram:** Contrast and brightness of the image are optimized using one linear transfer function. The image can be modified by changing the values of the ITT Mean and Max Gain parameters.

2. **Plateau Value:** Sets the maximum pixel value which can be found in a grey scale.
3. **ITT Mean:** Sets the mean point on a grey scale.
4. **Max Gain:** Sets the maximum gain of the AGC.
5. **Contrast:** Sets the contrast level of the image.
6. **Brightness:** Sets the brightness level of the image.
7. **Compensation:** Sets the brightness compensation level of the image.

GAIN CONTROL		
-----		
1	>ALGORITHM	: AUTO
2	PLATEAU VAL.	: 150
3	ITT MEAN	: 127
4	MAX GAIN	: 8
5	CONTRAST	: 32
6	BRIGHTNESS	: 8192
7	BRIGHT. COMP	: + 0

**Fig. 81**

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.

### 8.1.16.5 ROI Setup Menu

Once inside the ROI Configuration Menu it is possible to change the region of interest (ROI) used by the AGC algorithm to calculate the contrast and brightness levels of the image.

1. **Point 1 Left:** Sets the left limit of the ROI.
2. **Point 1 Top:** Sets the upper limit of the ROI.
3. **Point 2 Right:** Sets the right limit of the ROI.
4. **Point 2 Bottom:** Sets the lower limit of the ROI.

```
ROI SETUP
-----
1>POINT 1 LEFT   : -   160
2 POINT 1 TOP    : -   128
3 POINT 2 RIGHT  : +   160
4 POINT 2 BOTTOM: +   128
```

Fig. 82

### 8.1.16.6 Thermal Analysis Menu

1. **Spot Meter:** Allows access to the point measurement configuration submenu.
2. **Isotherm:** Allows access to the isotherm management submenu.

```
THERMAL ANALYSIS
-----
1>SPOT METER      >
2 ISOTHERM       >
```

Fig. 83

### 8.1.16.7 Thermal Analysis Menu (Spot Meter)

Once inside the Point Measurement menu it is possible to set one of the following parameters:

1. **Mode:** Enables the visualization of the taken temperature from the 4 pixels to the centre of the image (in degrees Celsius or Fahrenheit). The OFF option disables the visualization.
2. **Digital:** Enables the visualization of the relative symbol on the display.
3. **Thermometer:** Enables the visualization of the relative symbol on the display.

```
SPOT METER
-----
1>MODE           :      OFF
2 DIGITAL        :      N
3 THERMOMETER   :      N
```

Fig. 84

### 8.1.16.8 Thermal Analysis Menu (Isotherm)

Once inside the Isotherm menu it is possible to enable a special colouring for objects included within the set temperature interval. The parameters which manage this function are:

1. **Enable:** Enables the Isotherm function.
2. **Mode:** Selects the way in which the interval is indicated (in percentage or in degrees Celsius).
3. **Upper:** Sets the upper limit of the Isotherm function.
4. **Lower:** Sets the lower limit of the Isotherm function.

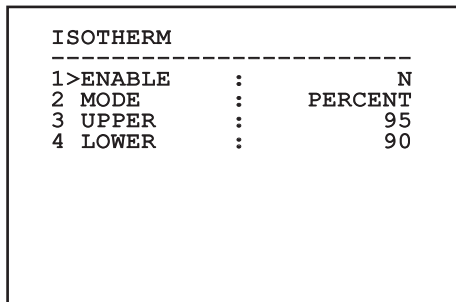


Fig. 85

This is a dynamic self-configuration menu based on the choice made and shows the parameters on which it is possible to operate.

### 8.1.16.9 Status Menu

Once inside the Status menu it is possible to learn the technical features of the thermal camera.

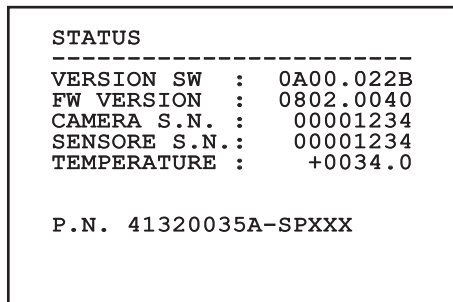


Fig. 86

## 9 Accessories

**i** For further details on configuration and use, refer to the relative manual.

### 9.1 Washer

The P&T can be equipped with an external pump that supplies water for the glass to be cleaned.

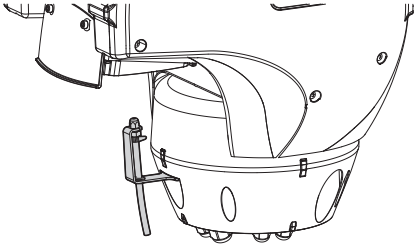


Fig. 87

### 9.2 Wall mount

Wall bracket with internal cable channel.

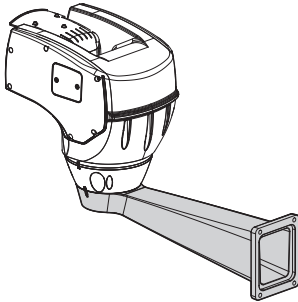


Fig. 88

### 9.3 Parapet bracket

Parapet bracket with internal cable channel.

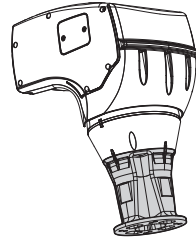


Fig. 89

### 9.4 Ceiling mounting

**!** Replace the toothed washers every time the body is removed from the base.

The unit can be inverted thanks to the ceiling mounting bracket.

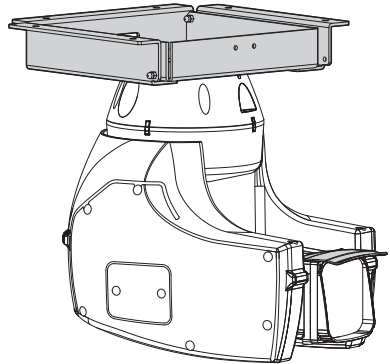


Fig. 90

## 10 Instructions for normal operation



**Direct and prolonged shooting of the sun by the thermal camera can cause irreparable damage to its sensor.**

### 10.1 Visualizing the state of the pan & tilt

During normal operation the pan & tilt displays on screen, at user's choice, the data organized as illustrated. The visualization can be enabled or disabled (8.1.11 Display Menu, page 39).

```

NORTH/EAST
ID: 1                               12345

AL 1: Alarm 1
Pan : - 5.56
Tilt: +120.01
Zoom: 36.00x
Preset: Text 001
E7-PRESET NOT CONFIGURED
  
```

Fig. 91

**NORTH/EAST:** Name of the area where one is currently located.

**ID: 1:** Receiver's address.

**12345:** Complete list of active alarms.

**AL 1:** Alarm 1: Text regarding the last active alarm.

**Pan:** - 5.56/Tilt: +120.01/Zoom: 36.00x: Current position of Pan, Tilt and Zoom.

**Preset:** Text 001: Name of selected active preset.

**E7-PRESET NOT CONFIGURED:** The following field shows the errors found while the system was running or the commands received via serial (visualization can be enabled or disabled only for received commands).

## 10.2 Saving a Preset

### 10.2.1 Quick save

Using the control keyboard it is possible to save the current position. For further information, refer to the manual of the keyboard in use.

During the saving stage, it is possible to change the speed at which Preset is reached using keys Focus Far/Focus Near and to change the waiting time using keys Iris Open/Iris Close.

```

-----
SET PRESET
Focus to change speed
Iris to change dwell
Joystick to exit
-----
Speed   : 100deg./s
Dwell   : 5s
Pan     : - 5.56
Tilt    : +120.01
Zoom    : 36.00x
  
```

Fig. 92

### 10.2.2 Saving from the Menu

Refer to 8.1.10.3 Preset Menu, page 36.

## 10.3 Restore a Preset position (Scan)

Using the control device it is possible to recall a previously saved Preset position (for additional information refer to the manual of the device being used).

## 10.4 Patrol enabling

To activate/deactivate this function, refer to the manual of the control device used or to the relative chapter (10.13 Special controls, page 52).

To deactivate this function, move the joystick or restore a different type of movement.

Refer to the relative chapter for the configuration of this function (8.1.10.6 Patrol Menu, page 37).

## 10.5 Autopan enabling

The Autopan function loads the 2 saved Presets in a continuous manner.

To activate/deactivate this function, refer to the manual of the control device used or to the relative chapter (10.13 Special controls, page 52).

To deactivate this function, move the joystick or restore a different type of movement.

Refer to the relative chapter for the configuration of this function (8.1.10.7 Autopan Menu, page 37).

## 10.6 Recalling a pattern (Tour)

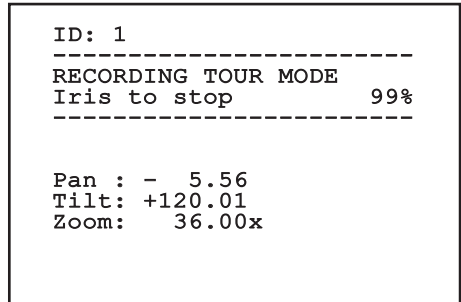
The Tour functioning mode allows the repetition of a previously recorded route in a continuous manner.

The pan & tilt can store up to 3 Tours, each lasting no more than 2 minutes.

To save a Tour, enter the special preset of the number of Tour to be saved using the keyboard (10.13 Special controls, page 52).

To simplify the recording of the Tour, the pan & tilt automatically limits the speed of the Pan & Tilt depending on the Zoom factor.

While the Tour is being recorded, the remaining recording time is displayed, as shown in the figure.



**Fig. 93**

To interrupt recording, press the Iris Open or Iris Close key.

To start the play-back of a Tour, enter the special preset of the number of Tour to be displayed using the keyboard (10.13 Special controls, page 52).




## 10.7 Recalling the Home position

Using the control device it is possible to recall a previously saved Home (Scan n.1) position (for further information refer to the manual of the control device in use).

## 10.8 Enabling the wiper (Wiper)

 **Do not use the wiper when the outside temperature is below 0°C or in case of ice.**

To activate/deactivate this function, refer to the manual of the control device used or to the relative chapter (10.13 Special controls, page 52).

 **If it is left on, the wiper automatically disables itself.**

## 10.9 Enabling the washer (Washer)

When a control is provided, the Pan & Tilt is positioned with the window in front of the nozzle.. The pump and wiper are activated for a set period of time. At the end of the operation the P&T returns to its initial position.

To activate/deactivate this function, refer to the manual of the control device used or to the relative chapter (10.13 Special controls, page 52).


For models with washer complete with level sensor, can also display a video message when the level of the liquid inside the tank is too low (only if using a high prevalence pump).

## 10.10 Unit Reboot

For further information refer to the relative chapter ( 10.13 Special controls, page 52).

## 10.11 Manual correction of a preset focusing

Load the preset whose focus needs to be changed using the Scan command. Change the focus using the appropriate keys Focus Far/Focus Near without changing the Pan/Tilt/Zoom position. Save the preset using the appropriate Preset command.

 **The manual correction of the Preset works only if the Daytime/Nigh-time Autofocus fields are disabled (8.1.10.5 Preset Menu (Utility Preset), page 37).**

## 10.12 Switching of the secondary video output

To select the video signal (integrated module or thermal camera), please refer to controls Video 2 integrated module and Video 2 thermal camera ( 10.13 Special controls, page 52).

## 10.13 Special controls


<b>SPECIAL CONTROLS</b>					
<b>Control</b>	<b>Protocol</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Tour 1 Start recording	Save Preset 77	Save Preset 77	Save Preset 77	Save Preset 77	Save Preset 77
		Start recording pattern 3		Save Preset 47	Save Pattern 2
Tour 2 Start recording	Save Preset 78	Save Preset 78	Save Preset 78	Save Preset 78	Save Preset 78
				Save Preset 48	Save Pattern 3
Tour 3 Start recording	Save Preset 79	Save Preset 79	Save Preset 79	Save Preset 79	Save Preset 79
				Save Preset 50	Save Pattern 4
Tour 1 Start	Save Preset 80	Save Preset 80	Save Preset 80	Save Preset 80	Save Preset 80
		Run pattern 3		Save Preset 51	Pattern 2
Tour 2 Start	Save Preset 81	Save Preset 81	Save Preset 81	Save Preset 81	Save Preset 81
				Save Preset 52	Pattern 3
Tour 3 Start	Save Preset 82	Save Preset 82	Save Preset 82	Save Preset 82	Save Preset 82
				Save Preset 53	Pattern 4
Tour Record Stop	Iris Open/Close	Iris Open/Close	Iris Open/Close	Iris Open/Close	IrisOpen/Close
		Save new pattern			Ack

<b>SPECIAL CONTROLS</b>					
<b>Control</b>	<b>Protocol</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Wiper Start	Save Preset 85	Save Preset 85	Save Preset 85	Save Preset 85	Save Preset 85
	Aux 3 ON	Aux 3 ON	Aux 3 ON	Save Preset 54	Aux 3 ON
	Wip+				
Wiper Stop	Save Preset 86	Save Preset 86	Save Preset 86	Save Preset 86	Save Preset 86
	Aux 3 OFF	Aux 3 OFF	Aux 3 OFF	Save Preset 55	Aux 3 OFF
	Wip-				
Washer	Save Preset 87	Save Preset 87	Save Preset 87	Save Preset 87	Save Preset 87
	Aux 4 ON	Aux 4 ON	Aux 4 ON	Save Preset 56	Aux 4 ON
	Was+				
Night Mode On	Save Preset 88	Save Preset 88	Save Preset 88	Save Preset 88	Save Preset 88
				Save Preset 57	
Night Mode Off	Save Preset 89	Save Preset 89	Save Preset 89	Save Preset 89	Save Preset 89
				Save Preset 58	
Reboot the device	Save Preset 94	Save Preset 94	Save Preset 94	Save Preset 94	Save Preset 94
	Ini+	Faster+ Zoom out+ Focus far+ Iris open		Save Preset 61	
Enabling OSM	Save Preset 95	Save Preset 95	Save Preset 95	Save Preset 95	Save Preset 95
	Men+	Iris open+ Focus+ Zoom out		Save Preset 46	

<b>SPECIAL CONTROLS</b>					
<b>Control</b>	<b>Protocol</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Patrol Start	Save Preset 93	Save Preset 93	Save Preset 93	Save Preset 93	Save Preset 93
	Pat+	Run pattern 1	Run patrol	Save Preset 60	Pattern
Patrol Stop	Save Preset 92	Save Preset 92	Save Preset 92	Save Preset 92	Save Preset 92
	Joystick	Joystick	Joystick	Joystick	Joystick
	Pat-			Save Preset 59	
Autopan Start	Save Preset 99	Save Preset 99	Save Preset 99	Save Preset 99	Save Preset 99
	Apa+	Run pattern 2	Run Autopan	Save Preset 63	Pattern 1
Autopan Stop	Save Preset 96	Save Preset 96	Save Preset 96	Save Preset 96	Save Preset 96
	Joystick	Joystick	Joystick	Joystick	Joystick
	Apa-			Save Preset 62	
Carry out a FFC	Save Preset 74	Save Preset 74	Save Preset 74	Save Preset 74	Save Preset 74
				Save Preset 43	
Video 2 - thermal camera	Save Preset 75	Save Preset 75	Save Preset 75	Save Preset 75	Save Preset 75
				Save Preset 44	
Video 2 integrated module	Save Preset 76	Save Preset 76	Save Preset 76	Save Preset 76	Save Preset 76
				Save Preset 45	

Tab. 12

## 11 Maintaining

 **Maintenance must be carried out by personnel trained to operate on electrical circuits.**


### 11.1 Replacing the fuses

A back-up can be made of the Pan & Tilt configuration, if required.

For further information please contact the VIDEOTEC service center.

The backup or restore operation can be done on site using the cable supplied with the pan & tilt. The operation can also be done in remote mode (only VIDEOTEC MACRO and PELCO D protocols) using an USB/485 Serial converter (not supplied).

### 11.2 Fuses replacement

 **CAUTION! For continued protection against risk of fire, replace only with same type and rating of fuse. Fuses must be replaced only by service personnel.**

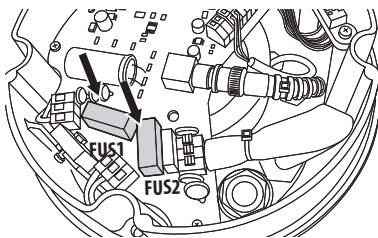


Fig. 94

The used fuses are described below.


FUSES REPLACEMENT		
Voltage	Fuse F1	Fuse F2
24Vac, 50/60Hz	T 4A L 250V 5x20	T 6.3A H 250V 5x20
120Vac, 50/60Hz	T 4A L 250V 5x20	T 4A H 250V 5x20
230Vac, 50/60Hz	T 4A L 250V 5x20	T 2A H 250V 5x20

Tab. 13

As an alternative, use approved fuses featuring the same characteristics.

## 12 Cleaning

### 12.1 Window and plastic cover cleaning

 **Avoid ethyl alcohol, solvents, hydrogenated hydrocarbide, strong acid and alkali. Such products may irreparably damage the surface.**

We recommend using a soft cloth with neutral soaps diluted with water or specific products to clean the glasses lenses.

## 13 Disposal of waste materials



**This symbol mark and recycle system are applied only to EU countries and not applied to the countries in the other area of the world.**

Your product is designed and manufactured with high quality materials and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

Please dispose of this equipment at your local Community waste collection or Recycling centre.

In the European Union there are separate collection systems for used electrical and electronic products.

## 14 Troubleshooting

Ask for assistance from skilled personnel if:

- The unit is damaged after being dropped;
- There is noticeable deterioration in performance of the unit.
- The unit does not work properly, even though all the instructions in this handbook have been followed.

PROBLEM	<b>The product does not go on.</b>
CAUSE	<i>Wiring error, blown fuse.</i>
SOLUTION	Make sure the connections are correct. Check the continuity of the fuses and replace them with the indicated models should they fail.
PROBLEM	<b>The saved preset positions do not correspond to the camera range.</b>
CAUSE	<i>Loss of absolute position reference point.</i>

---

PROBLEM

**During start-up the pan & tilt is disabled and the following type of message is shown:**

Address : 1

DE-ICE PROCEDURE  
IN PROGRESS...

REMAINING MINUTES:59

CAUSE

*The environment temperature is too low.*

SOLUTION

Wait until the end of the pre-heating procedure. If the air temperature is too low the unit will remain disabled and the following message will be shown:

Address : 1

DE-ICE PROCEDURE

-----  
SYSTEM BLOCKED  
TEMPERATURE TOO LOW  
-----

---

PROBLEM

**Error E1-AUTOPAN WITHOUT LIMITS.**

CAUSE

*The two presets used as limits have not been programmed.*

SOLUTION

Program the two presets and then update the Autopan configuration menu (10.2 Saving a Preset, page 49 e 8.1.10.7 Autopan Menu, page 37).

---

PROBLEM	<b>Error E2-WIPER BLOCKED.</b>
CAUSE	<i>The wiper is either jammed or broken.</i>
SOLUTION	Check that the wiper is free to move.

---

PROBLEM	<b>Error E3-PATROL WITHOUT PRESET or error E4-PATROL, 1 PRESET ONLY.</b>
CAUSE	<i>The presets have not been programmed.</i>
SOLUTION	Program two or more presets and then update the Patrol configuration menu (10.2 Saving a Preset, page 49 e 8.1.10.6 Patrol Menu, page 37).

---

PROBLEM	<b>Error E5-IR TEMP. TOO HIGH or error E6-IR FAULT.</b>
CAUSE	<i>The infrared illuminator is not working properly.</i>
SOLUTION	Save the preset using the relative control (10.2 Saving a Preset, page 49).

---

PROBLEM	<b>Error E7-PRST. NOT CONFIGURED.</b>
CAUSE	<i>Recalling of a non programmed preset.</i>
SOLUTION	Contact the authorized service centre.

---

PROBLEM	<b>Error E8-TOUR NOT CONFIGURED.</b>
CAUSE	<i>Recalling of a non configured Tour.</i>
SOLUTION	Save the Tour using the relative control (10.6 Recalling a pattern (Tour), page 50).

---

PROBLEM	<b>Error E9-TEMP. TOO LOW.</b>
CAUSE	<i>The environment temperature is too low.</i>
SOLUTION	The movements of the P&T unit is blocked to prevent mechanical damage.


---

PROBLEM	<b>Alarm AL6 :WATER LEVEL LOW</b>
CAUSE	<i>Low wiper liquid level.</i>
SOLUTION	Fill the tank of the pump using the suitable wiper liquid.



## 15 Technical data

 **CAUTION! TNV-1 installation type. The installation is type TNV-1, do not connect it to SELV circuits.**

 **CAUTION! In order to reduce the risk of fire, only use UL Listed or CSA certified cables sizes greater than or equal to 0.13mm<sup>2</sup> (26 AWG).**

### 15.1 General

Constructed from aluminium and tecnopolymer  
 Epoxy polyester powder painting, RAL9002 colour  
 Germanium window for thermal camera  
 Easy installation thanks to the self-centring connector  
 Zero backlash  
 Quick configuration and setup  
 Dynamic positioning control system

16-characters string for zone and preset titling

Functions: Autopan, Preset, Patrol, Tour (maximum 3), Autoflip

### 15.2 Mechanical

Cable glands: 2xM16, 2xM12

Horizontal rotation: continuous

Vertical rotation: -90° to +90°

Horizontal speed (variable): from 0.1° up to 200°/s

Tilt speed (variable): from 0.1° up to 200°/s

Preset accuracy: 0.05°

Unit weight: 12.5kg (28lb)

### 15.3 Electrical

Power supply/Current consumption:

- 230Vac, 0.4A, 50/60Hz
- 24Vac, 4A, 50/60Hz
- 120Vac, 0.8A, 50/60Hz

Power consumption

- 40W: P&T stopped, heating switched off
- 60W: P&T in motion, heating switched off
- 125W: peak at start-up, heating switched on

Input cables size: AWG 16-AWG 19

Dimensions of signal cables: AWG 16-AWG 30

Video line: coaxial cable (1Vpp, 750hm)

I/O alarm card

- Alarm inputs: 6
- Relay outputs: 2 (2A, 30Vac/60Vdc max)

### 15.4 Communications

Configuration through OSD

Half-duplex serial RS485 interface, full-duplex RS422 and daisy-chain architecture

Firmware updating from console in remote mode (only VIDEOTEC MACRO and PELCO D protocols)

Up to 1023 units, addressable by means of dip-switches

### 15.5 Protocols

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

Maximum number of presets for protocol

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, from OSD only (On Screen Display)

# 15.6 Camera

THERMAL CAMERAS (RESOLUTION 320X256)										
	Lens 35mm		Lens 25mm		Lens 19mm		Lens 13mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Pixel dimensions	25µm		25µm		25µm		25µm		25µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	13°		18°		24°		34°		48°	
Vertical field of view	10°		14°		18°		26°		37°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Thermal sensitivity (NEΔT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Person (detection / recognition / identification)	800m / 200m / 105m (2625 / 656 / 345ft)		590m / 148m / 75m (1935 / 486 / 246ft)		450m / 112m / 56m (1476ft / 367ft / 184ft)		300m / 74m / 37m (984ft / 243ft / 121ft)		205m / 52m / 26m (673ft / 171ft / 85ft)	
Auto (detection / recognition / identification)	2250m / 590m / 290m (7382ft / 1936ft / 951ft)		1650m / 430m / 215m (5413ft / 1411ft / 705ft)		1280m / 330m / 165m (4199ft / 1083ft / 541ft)		840m / 215m / 108m (2756 / 705 / 354ft)		590m / 150m / 74m (1936 / 492 / 242ft)	

Tab. 14

THERMAL CAMERAS (RESOLUTION 640X512)										
	Lens 35mm		Lens 25mm		Lens 19mm		Lens 13mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Pixel dimensions	17µm		17µm		17µm		17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	18°		25°		32°		45°		69°	
Vertical field of view	14°		20°		26°		37°		56°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Thermal sensitivity (NEΔT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Person (detection / recognition / identification)	1140m / 280m / 142m (3740ft / 919ft / 466ft)		820m / 210m / 104m (2690 / 689 / 341ft)		570m / 144m / 72m (1870 / 472 / 236ft)		390m / 95m / 47m (1280ft / 312ft / 154ft)		250m / 63m / 31m (820ft / 207ft / 102ft)	
Auto (detection / recognition / identification)	3000m / 800m / 200m (9843ft / 2625ft / 656ft)		2200m / 580m / 290m (7218ft / 1903ft / 951ft)		1550m / 400m / 200m (5085ft / 1312ft / 656ft)		1080m / 275m / 140m (3543ft / 902ft / 459ft)		720m / 175m /88m (2362 / 574 / 289ft)	

Tab. 15

ANALOG CAMERAS (DAY/NIGHT)				
	Day/Night 36x		Day/Night 28x High sensitivity	
	PAL	NTSC	PAL	NTSC
Optical zoom	36x		28x	
Wide Dynamic Range (Fix/Auto)	✓		–	
True progressive SCAN	✓		–	
Digital image stabilisation	✓		✓	
White balance	Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)		Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)	
High horizontal resolution	Up to 550 TV Lines		Up to 550 TV Lines	
Day/Night (Auto ICR)	✓		✓	
Image Sensor	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Number of effective Pixels	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Min. Color illumination (IR-Cut Filter = OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Min. B/W illumination	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
"Shutter Time" automatic increase to improve the night surveillance	✓		✓	
S/N ratio	Greater than 50dB		Greater than 50dB	
AE control	Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual		Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual	
Back light compensation	On/Off		On/Off	
Spherical masking (3D) of Privacy zones with automatic upgrade	✓		✓	
Privacy Zone Masking	On/Off (24 positions)		On/Off (24 positions)	
Maximum number of masking blocks to be displayed	8		8	
Resolution of masking blocks	160x120 HxV		160x120 HxV	
Masking	Up to 15 different masking types: 14 colour types or mosaic		Up to 15 different masking types: 14 colour types or mosaic	
Focusing system	Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual		Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual	
"Smart" lens control	Automatic Lens Reset		Automatic Lens Reset	
High Zoom and Wide Horizontal Field of View Capability	✓		✓	
Optical zoom	36x, f=3.4 (wide) to 122.4mm (tele) / F1.6 to F4.5		28x, f=3.5 (wide) to 98mm (tele) / F1.35 to F3.7	
Digital Zoom	12x (432x with optical zoom)		12x (336x with optical zoom)	
Angle of view (A)	57.8 degrees (wide) to 1.7 degrees (tele)		55.8 degrees (wide) to 2.1 degrees (tele)	
Minimum object distance	320mm (12.6in) (wide) to 1500mm (59.1in) (tele)		10mm (0.4in) (wide) to 1500mm (59.1in) (tele)	
Electronic Iris Speed	1/1 ÷ 1/10000s		1/1 ÷ 1/10000s	

Tab. 16

## 15.7 Environment

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Indoor/Outdoor

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Operating temperature (with heater): from -40°C (-40°F) up to +60°C (140°F)

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Wind resistance

- Operational: up to 160km/h
  - Stationary: up to 210km/h
- 

Surge immunity: up to 2kV line to line, up to 4kV line to earth (Class 4)

## 15.8 Certifications

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Electrical safety (CE): EN60950-1, IEC60950-1

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Electromagnetic compatibility (CE): EN610000-6-4, EN50130-4, EN55022 (Class A), EN61000-6-4, FCC Part 15 (Class A)

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Outdoor installation (CE): EN60950-22, IEC60950-22

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IP protection degree: EN60529 (IP66)

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UL certification: cULus Listed (TYPE 4X)

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EAC certification

# 16 Technical drawings



The dimensions of the drawings are in millimetres.

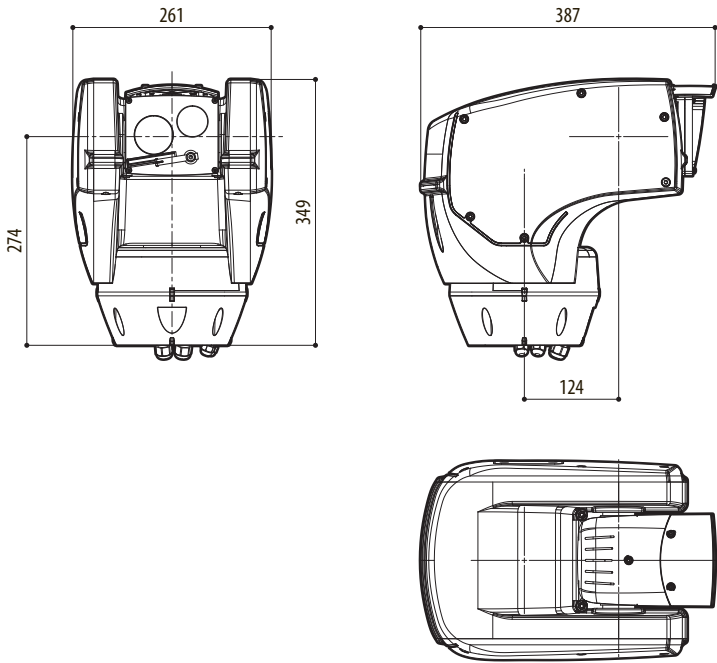


Fig. 95 ULISSE COMPACT THERMAL.

# A Appendix - Address table



When the switch rocker is up it represents the value 1 (ON). When the dip-switch rocker is down it represents the value 0 (OFF).

All possible combinations are shown below.

ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Address not enabled	Address 512
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Address 1	Address 513
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Address 2	Address 514
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Address 3	Address 515
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Address 4	Address 516
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Address 5	Address 517
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Address 6	Address 518
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Address 7	Address 519
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Address 8	Address 520
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Address 9	Address 521
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Address 10	Address 522
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Address 11	Address 523
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Address 12	Address 524
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Address 13	Address 525
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Address 14	Address 526
ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Address 15	Address 527
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Address 16	Address 528
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Address 17	Address 529
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Address 18	Address 530
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Address 19	Address 531
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Address 20	Address 532
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Address 21	Address 533
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Address 22	Address 534
ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Address 23	Address 535
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Address 24	Address 536
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Address 25	Address 537
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Address 26	Address 538
ON	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Address 27	Address 539
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Address 28	Address 540
ON	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Address 29	Address 541
OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Address 30	Address 542
ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Address 31	Address 543
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Address 32	Address 544
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Address 33	Address 545
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Address 34	Address 546
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Address 35	Address 547
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Address 36	Address 548
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Address 37	Address 549
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Address 38	Address 550

**ADDRESS CONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Address 39	Address 551
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Address 40	Address 552
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Address 41	Address 553
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Address 42	Address 554
ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Address 43	Address 555
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Address 44	Address 556
ON	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Address 45	Address 557
OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Address 46	Address 558
ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Address 47	Address 559
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Address 48	Address 560
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Address 49	Address 561
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Address 50	Address 562
ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Address 51	Address 563
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Address 52	Address 564
ON	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Address 53	Address 565
OFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Address 54	Address 566
ON	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Address 55	Address 567
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Address 56	Address 568
ON	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Address 57	Address 569
OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Address 58	Address 570
ON	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Address 59	Address 571
OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Address 60	Address 572
ON	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Address 61	Address 573
OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	Address 62	Address 574
ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	Address 63	Address 575
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Address 64	Address 576
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Address 65	Address 577
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Address 66	Address 578
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Address 67	Address 579
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Address 68	Address 580
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Address 69	Address 581
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Address 70	Address 582
ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Address 71	Address 583
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Address 72	Address 584
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Address 73	Address 585
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Address 74	Address 586
ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Address 75	Address 587
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Address 76	Address 588
ON	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Address 77	Address 589
OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Address 78	Address 590
ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Address 79	Address 591
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Address 80	Address 592
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Address 81	Address 593
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Address 82	Address 594
ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Address 83	Address 595



ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Address 84	Address 596
ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Address 85	Address 597
OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Address 86	Address 598
ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Address 87	Address 599
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Address 88	Address 600
ON	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Address 89	Address 601
OFF	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Address 90	Address 602
ON	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Address 91	Address 603
OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Address 92	Address 604
ON	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Address 93	Address 605
OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	Address 94	Address 606
ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	Address 95	Address 607
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Address 96	Address 608
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Address 97	Address 609
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Address 98	Address 610
ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Address 99	Address 611
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Address 100	Address 612
ON	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Address 101	Address 613
OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Address 102	Address 614
ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Address 103	Address 615
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Address 104	Address 616
ON	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Address 105	Address 617
OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Address 106	Address 618
ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Address 107	Address 619
OFF	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Address 108	Address 620
ON	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Address 109	Address 621
OFF	ON	ON	ON	OFF	ON	ON	OFF	OFF	Address 110	Address 622
ON	ON	ON	ON	OFF	ON	ON	OFF	OFF	Address 111	Address 623
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Address 112	Address 624
ON	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Address 113	Address 625
OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Address 114	Address 626
ON	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Address 115	Address 627
OFF	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Address 116	Address 628
ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Address 117	Address 629
OFF	ON	ON	OFF	ON	ON	ON	OFF	OFF	Address 118	Address 630
ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	Address 119	Address 631
OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Address 120	Address 632
ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Address 121	Address 633
OFF	ON	OFF	ON	ON	ON	ON	OFF	OFF	Address 122	Address 634
ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	Address 123	Address 635
OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	Address 124	Address 636
ON	OFF	ON	ON	ON	ON	ON	OFF	OFF	Address 125	Address 637
OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	Address 126	Address 638
ON	ON	ON	ON	ON	ON	ON	OFF	OFF	Address 127	Address 639
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Address 128	Address 640

**ADDRESS CONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Address 129	Address 641
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Address 130	Address 642
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Address 131	Address 643
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Address 132	Address 644
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Address 133	Address 645
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Address 134	Address 646
ON	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Address 135	Address 647
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Address 136	Address 648
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Address 137	Address 649
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Address 138	Address 650
ON	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Address 139	Address 651
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Address 140	Address 652
ON	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Address 141	Address 653
OFF	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Address 142	Address 654
ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Address 143	Address 655
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Address 144	Address 656
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Address 145	Address 657
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Address 146	Address 658
ON	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Address 147	Address 659
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Address 148	Address 660
ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Address 149	Address 661
OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Address 150	Address 662
ON	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Address 151	Address 663
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Address 152	Address 664
ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Address 153	Address 665
OFF	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Address 154	Address 666
ON	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Address 155	Address 667
OFF	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Address 156	Address 668
ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Address 157	Address 669
OFF	ON	ON	ON	ON	OFF	OFF	ON	OFF	Address 158	Address 670
ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	Address 159	Address 671
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Address 160	Address 672
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Address 161	Address 673
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Address 162	Address 674
ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Address 163	Address 675
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Address 164	Address 676
ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Address 165	Address 677
OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Address 166	Address 678
ON	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Address 167	Address 679
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Address 168	Address 680
ON	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Address 169	Address 681
OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Address 170	Address 682
ON	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Address 171	Address 683
OFF	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Address 172	Address 684
ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Address 173	Address 685

ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	ON	ON	OFF	ON	OFF	ON	OFF	Address 174	Address 686
ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	Address 175	Address 687
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Address 176	Address 688
ON	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Address 177	Address 689
OFF	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Address 178	Address 690
ON	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Address 179	Address 691
OFF	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Address 180	Address 692
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Address 181	Address 693
OFF	ON	ON	OFF	ON	ON	OFF	ON	OFF	Address 182	Address 694
ON	ON	ON	OFF	ON	ON	OFF	ON	OFF	Address 183	Address 695
OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Address 184	Address 696
ON	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Address 185	Address 697
OFF	ON	OFF	ON	ON	ON	OFF	ON	OFF	Address 186	Address 698
ON	ON	OFF	ON	ON	ON	OFF	ON	OFF	Address 187	Address 699
OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	Address 188	Address 700
ON	OFF	ON	ON	ON	ON	OFF	ON	OFF	Address 189	Address 701
OFF	ON	ON	ON	ON	ON	OFF	ON	OFF	Address 190	Address 702
ON	ON	ON	ON	ON	ON	OFF	ON	OFF	Address 191	Address 703
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Address 192	Address 704
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Address 193	Address 705
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Address 194	Address 706
ON	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Address 195	Address 707
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Address 196	Address 708
ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Address 197	Address 709
OFF	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Address 198	Address 710
ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Address 199	Address 711
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Address 200	Address 712
ON	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Address 201	Address 713
OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Address 202	Address 714
ON	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Address 203	Address 715
OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Address 204	Address 716
ON	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Address 205	Address 717
OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	Address 206	Address 718
ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	Address 207	Address 719
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Address 208	Address 720
ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Address 209	Address 721
OFF	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Address 210	Address 722
ON	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Address 211	Address 723
OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Address 212	Address 724
ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Address 213	Address 725
OFF	ON	ON	OFF	ON	OFF	ON	ON	OFF	Address 214	Address 726
ON	ON	ON	OFF	ON	OFF	ON	ON	OFF	Address 215	Address 727
OFF	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Address 216	Address 728
ON	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Address 217	Address 729
OFF	ON	OFF	ON	ON	OFF	ON	ON	OFF	Address 218	Address 730

**ADDRESS CONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	OFF	ON	ON	OFF	ON	ON	OFF	Address 219	Address 731
OFF	OFF	ON	ON	ON	OFF	ON	ON	OFF	Address 220	Address 732
ON	OFF	ON	ON	ON	OFF	ON	ON	OFF	Address 221	Address 733
OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	Address 222	Address 734
ON	ON	ON	ON	ON	OFF	ON	ON	OFF	Address 223	Address 735
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Address 224	Address 736
ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Address 225	Address 737
OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Address 226	Address 738
ON	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Address 227	Address 739
OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Address 228	Address 740
ON	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Address 229	Address 741
OFF	ON	ON	OFF	OFF	ON	ON	ON	OFF	Address 230	Address 742
ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	Address 231	Address 743
OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Address 232	Address 744
ON	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Address 233	Address 745
OFF	ON	OFF	ON	OFF	ON	ON	ON	OFF	Address 234	Address 746
ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	Address 235	Address 747
OFF	OFF	ON	ON	OFF	ON	ON	ON	OFF	Address 236	Address 748
ON	OFF	ON	ON	OFF	ON	ON	ON	OFF	Address 237	Address 749
OFF	ON	ON	ON	OFF	ON	ON	ON	OFF	Address 238	Address 750
ON	ON	ON	ON	OFF	ON	ON	ON	OFF	Address 239	Address 751
OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Address 240	Address 752
ON	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Address 241	Address 753
OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	Address 242	Address 754
ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	Address 243	Address 755
OFF	OFF	ON	OFF	ON	ON	ON	ON	OFF	Address 244	Address 756
ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	Address 245	Address 757
OFF	ON	ON	OFF	ON	ON	ON	ON	OFF	Address 246	Address 758
ON	ON	ON	OFF	ON	ON	ON	ON	OFF	Address 247	Address 759
OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	Address 248	Address 760
ON	OFF	OFF	ON	ON	ON	ON	ON	OFF	Address 249	Address 761
OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	Address 250	Address 762
ON	ON	OFF	ON	ON	ON	ON	ON	OFF	Address 251	Address 763
OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	Address 252	Address 764
ON	OFF	ON	ON	ON	ON	ON	ON	OFF	Address 253	Address 765
OFF	ON	ON	ON	ON	ON	ON	ON	OFF	Address 254	Address 766
ON	ON	ON	ON	ON	ON	ON	ON	OFF	Address 255	Address 767
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Address 256	Address 768
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Address 257	Address 769
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Address 258	Address 770
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Address 259	Address 771
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Address 260	Address 772
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Address 261	Address 773
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Address 262	Address 774
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Address 263	Address 775

ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Address 264	Address 776
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Address 265	Address 777
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Address 266	Address 778
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Address 267	Address 779
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Address 268	Address 780
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Address 269	Address 781
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Address 270	Address 782
ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Address 271	Address 783
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Address 272	Address 784
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Address 273	Address 785
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Address 274	Address 786
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Address 275	Address 787
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Address 276	Address 788
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Address 277	Address 789
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Address 278	Address 790
ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Address 279	Address 791
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Address 280	Address 792
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Address 281	Address 793
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Address 282	Address 794
ON	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Address 283	Address 795
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Address 284	Address 796
ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Address 285	Address 797
OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	Address 286	Address 798
ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	Address 287	Address 799
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Address 288	Address 800
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Address 289	Address 801
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Address 290	Address 802
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Address 291	Address 803
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Address 292	Address 804
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Address 293	Address 805
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Address 294	Address 806
ON	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Address 295	Address 807
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Address 296	Address 808
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Address 297	Address 809
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Address 298	Address 810
ON	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Address 299	Address 811
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Address 300	Address 812
ON	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Address 301	Address 813
OFF	ON	ON	ON	OFF	ON	OFF	OFF	ON	Address 302	Address 814
ON	ON	ON	ON	OFF	ON	OFF	OFF	ON	Address 303	Address 815
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Address 304	Address 816
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Address 305	Address 817
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Address 306	Address 818
ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Address 307	Address 819
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Address 308	Address 820

**ADDRESS CONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Address 309	Address 821
OFF	ON	ON	OFF	ON	ON	OFF	OFF	ON	Address 310	Address 822
ON	ON	ON	OFF	ON	ON	OFF	OFF	ON	Address 311	Address 823
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Address 312	Address 824
ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Address 313	Address 825
OFF	ON	OFF	ON	ON	ON	OFF	OFF	ON	Address 314	Address 826
ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	Address 315	Address 827
OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	Address 316	Address 828
ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	Address 317	Address 829
OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	Address 318	Address 830
ON	ON	ON	ON	ON	ON	OFF	OFF	ON	Address 319	Address 831
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Address 320	Address 832
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Address 321	Address 833
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Address 322	Address 834
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Address 323	Address 835
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Address 324	Address 836
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Address 325	Address 837
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Address 326	Address 838
ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Address 327	Address 839
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Address 328	Address 840
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Address 329	Address 841
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Address 330	Address 842
ON	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Address 331	Address 843
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Address 332	Address 844
ON	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Address 333	Address 845
OFF	ON	ON	ON	OFF	OFF	ON	OFF	ON	Address 334	Address 846
ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	Address 335	Address 847
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Address 336	Address 848
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Address 337	Address 849
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Address 338	Address 850
ON	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Address 339	Address 851
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Address 340	Address 852
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Address 341	Address 853
OFF	ON	ON	OFF	ON	OFF	ON	OFF	ON	Address 342	Address 854
ON	ON	ON	OFF	ON	OFF	ON	OFF	ON	Address 343	Address 855
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Address 344	Address 856
ON	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Address 345	Address 857
OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	Address 346	Address 858
ON	ON	OFF	ON	ON	OFF	ON	OFF	ON	Address 347	Address 859
OFF	OFF	ON	ON	ON	OFF	ON	OFF	ON	Address 348	Address 860
ON	OFF	ON	ON	ON	OFF	ON	OFF	ON	Address 349	Address 861
OFF	ON	ON	ON	ON	OFF	ON	OFF	ON	Address 350	Address 862
ON	ON	ON	ON	ON	OFF	ON	OFF	ON	Address 351	Address 863
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Address 352	Address 864
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Address 353	Address 865

ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Address 354	Address 866
ON	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Address 355	Address 867
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Address 356	Address 868
ON	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Address 357	Address 869
OFF	ON	ON	OFF	OFF	ON	ON	OFF	ON	Address 358	Address 870
ON	ON	ON	OFF	OFF	ON	ON	OFF	ON	Address 359	Address 871
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Address 360	Address 872
ON	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Address 361	Address 873
OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	Address 362	Address 874
ON	ON	OFF	ON	OFF	ON	ON	OFF	ON	Address 363	Address 875
OFF	OFF	ON	ON	OFF	ON	ON	OFF	ON	Address 364	Address 876
ON	OFF	ON	ON	OFF	ON	ON	OFF	ON	Address 365	Address 877
OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	Address 366	Address 878
ON	ON	ON	ON	OFF	ON	ON	OFF	ON	Address 367	Address 879
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Address 368	Address 880
ON	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Address 369	Address 881
OFF	ON	OFF	OFF	ON	ON	ON	OFF	ON	Address 370	Address 882
ON	ON	OFF	OFF	ON	ON	ON	OFF	ON	Address 371	Address 883
OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	Address 372	Address 884
ON	OFF	ON	OFF	ON	ON	ON	OFF	ON	Address 373	Address 885
OFF	ON	ON	OFF	ON	ON	ON	OFF	ON	Address 374	Address 886
ON	ON	ON	OFF	ON	ON	ON	OFF	ON	Address 375	Address 887
OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	Address 376	Address 888
ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	Address 377	Address 889
OFF	ON	OFF	ON	ON	ON	ON	OFF	ON	Address 378	Address 890
ON	ON	OFF	ON	ON	ON	ON	OFF	ON	Address 379	Address 891
OFF	OFF	ON	ON	ON	ON	ON	OFF	ON	Address 380	Address 892
ON	OFF	ON	ON	ON	ON	ON	OFF	ON	Address 381	Address 893
OFF	ON	ON	ON	ON	ON	ON	OFF	ON	Address 382	Address 894
ON	ON	ON	ON	ON	ON	ON	OFF	ON	Address 383	Address 895
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Address 384	Address 896
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Address 385	Address 897
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Address 386	Address 898
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Address 387	Address 899
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Address 388	Address 900
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Address 389	Address 901
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Address 390	Address 902
ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Address 391	Address 903
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Address 392	Address 904
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Address 393	Address 905
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Address 394	Address 906
ON	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Address 395	Address 907
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Address 396	Address 908
ON	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Address 397	Address 909
OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	Address 398	Address 910

**ADDRESS CONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	Address 399	Address 911
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Address 400	Address 912
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Address 401	Address 913
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Address 402	Address 914
ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Address 403	Address 915
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Address 404	Address 916
ON	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Address 405	Address 917
OFF	ON	ON	OFF	ON	OFF	OFF	ON	ON	Address 406	Address 918
ON	ON	ON	OFF	ON	OFF	OFF	ON	ON	Address 407	Address 919
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Address 408	Address 920
ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Address 409	Address 921
OFF	ON	OFF	ON	ON	OFF	OFF	ON	ON	Address 410	Address 922
ON	ON	OFF	ON	ON	OFF	OFF	ON	ON	Address 411	Address 923
OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	Address 412	Address 924
ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	Address 413	Address 925
OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	Address 414	Address 926
ON	ON	ON	ON	ON	OFF	OFF	ON	ON	Address 415	Address 927
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Address 416	Address 928
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Address 417	Address 929
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Address 418	Address 930
ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Address 419	Address 931
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Address 420	Address 932
ON	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Address 421	Address 933
OFF	ON	ON	OFF	OFF	ON	OFF	ON	ON	Address 422	Address 934
ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	Address 423	Address 935
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Address 424	Address 936
ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Address 425	Address 937
OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	Address 426	Address 938
ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	Address 427	Address 939
OFF	OFF	ON	ON	OFF	ON	OFF	ON	ON	Address 428	Address 940
ON	OFF	ON	ON	OFF	ON	OFF	ON	ON	Address 429	Address 941
OFF	ON	ON	ON	OFF	ON	OFF	ON	ON	Address 430	Address 942
ON	ON	ON	ON	OFF	ON	OFF	ON	ON	Address 431	Address 943
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Address 432	Address 944
ON	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Address 433	Address 945
OFF	ON	OFF	OFF	ON	ON	OFF	ON	ON	Address 434	Address 946
ON	ON	OFF	OFF	ON	ON	OFF	ON	ON	Address 435	Address 947
OFF	OFF	ON	OFF	ON	ON	OFF	ON	ON	Address 436	Address 948
ON	OFF	ON	OFF	ON	ON	OFF	ON	ON	Address 437	Address 949
OFF	ON	ON	OFF	ON	ON	OFF	ON	ON	Address 438	Address 950
ON	ON	ON	OFF	ON	ON	OFF	ON	ON	Address 439	Address 951
OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	Address 440	Address 952
ON	OFF	OFF	ON	ON	ON	OFF	ON	ON	Address 441	Address 953
OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	Address 442	Address 954
ON	ON	OFF	ON	ON	ON	OFF	ON	ON	Address 443	Address 955



ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	Address 444	Address 956
ON	OFF	ON	ON	ON	ON	OFF	ON	ON	Address 445	Address 957
OFF	ON	ON	ON	ON	ON	OFF	ON	ON	Address 446	Address 958
ON	ON	ON	ON	ON	ON	OFF	ON	ON	Address 447	Address 959
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Address 448	Address 960
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Address 449	Address 961
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Address 450	Address 962
ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Address 451	Address 963
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Address 452	Address 964
ON	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Address 453	Address 965
OFF	ON	ON	OFF	OFF	OFF	ON	ON	ON	Address 454	Address 966
ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	Address 455	Address 967
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Address 456	Address 968
ON	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Address 457	Address 969
OFF	ON	OFF	ON	OFF	OFF	ON	ON	ON	Address 458	Address 970
ON	ON	OFF	ON	OFF	OFF	ON	ON	ON	Address 459	Address 971
OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	Address 460	Address 972
ON	OFF	ON	ON	OFF	OFF	ON	ON	ON	Address 461	Address 973
OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	Address 462	Address 974
ON	ON	ON	ON	OFF	OFF	ON	ON	ON	Address 463	Address 975
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Address 464	Address 976
ON	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Address 465	Address 977
OFF	ON	OFF	OFF	ON	OFF	ON	ON	ON	Address 466	Address 978
ON	ON	OFF	OFF	ON	OFF	ON	ON	ON	Address 467	Address 979
OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON	Address 468	Address 980
ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	Address 469	Address 981
OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	Address 470	Address 982
ON	ON	ON	OFF	ON	OFF	ON	ON	ON	Address 471	Address 983
OFF	OFF	OFF	ON	ON	OFF	ON	ON	ON	Address 472	Address 984
ON	OFF	OFF	ON	ON	OFF	ON	ON	ON	Address 473	Address 985
OFF	ON	OFF	ON	ON	OFF	ON	ON	ON	Address 474	Address 986
ON	ON	OFF	ON	ON	OFF	ON	ON	ON	Address 475	Address 987
OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	Address 476	Address 988
ON	OFF	ON	ON	ON	OFF	ON	ON	ON	Address 477	Address 989
OFF	ON	ON	ON	ON	OFF	ON	ON	ON	Address 478	Address 990
ON	ON	ON	ON	ON	OFF	ON	ON	ON	Address 479	Address 991
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Address 480	Address 992
ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Address 481	Address 993
OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	Address 482	Address 994
ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	Address 483	Address 995
OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	Address 484	Address 996
ON	OFF	ON	OFF	OFF	ON	ON	ON	ON	Address 485	Address 997
OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	Address 486	Address 998
ON	ON	ON	OFF	OFF	ON	ON	ON	ON	Address 487	Address 999
OFF	OFF	OFF	ON	OFF	ON	ON	ON	ON	Address 488	Address 1000

ADDRESS CONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	ON	OFF	ON	ON	ON	ON	Address 489	Address 1001
OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	Address 490	Address 1002
ON	ON	OFF	ON	OFF	ON	ON	ON	ON	Address 491	Address 1003
OFF	OFF	ON	ON	OFF	ON	ON	ON	ON	Address 492	Address 1004
ON	OFF	ON	ON	OFF	ON	ON	ON	ON	Address 493	Address 1005
OFF	ON	ON	ON	OFF	ON	ON	ON	ON	Address 494	Address 1006
ON	ON	ON	ON	OFF	ON	ON	ON	ON	Address 495	Address 1007
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	Address 496	Address 1008
ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	Address 497	Address 1009
OFF	ON	OFF	OFF	ON	ON	ON	ON	ON	Address 498	Address 1010
ON	ON	OFF	OFF	ON	ON	ON	ON	ON	Address 499	Address 1011
OFF	OFF	ON	OFF	ON	ON	ON	ON	ON	Address 500	Address 1012
ON	OFF	ON	OFF	ON	ON	ON	ON	ON	Address 501	Address 1013
OFF	ON	ON	OFF	ON	ON	ON	ON	ON	Address 502	Address 1014
ON	ON	ON	OFF	ON	ON	ON	ON	ON	Address 503	Address 1015
OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	Address 504	Address 1016
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	Address 505	Address 1017
OFF	ON	OFF	ON	ON	ON	ON	ON	ON	Address 506	Address 1018
ON	ON	OFF	ON	ON	ON	ON	ON	ON	Address 507	Address 1019
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	Address 508	Address 1020
ON	OFF	ON	ON	ON	ON	ON	ON	ON	Address 509	Address 1021
OFF	ON	ON	ON	ON	ON	ON	ON	ON	Address 510	Address 1022
ON	ON	ON	ON	ON	ON	ON	ON	ON	Address 511	Address 1023

Tab. 17



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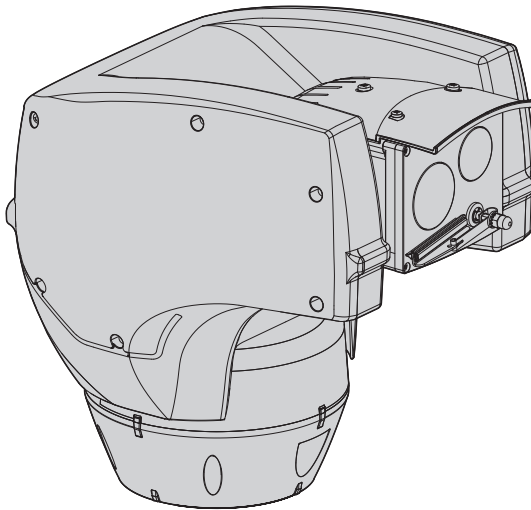
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**MNVUCT\_1511\_EN**



# ULISSE COMPACT THERMAL

Telecamera PTZ Dual Vision, Day/Night e termica,  
per il monitoraggio nel buio totale





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# 1 Informazioni sul presente manuale

Prima di installare e utilizzare questa unità, leggere attentamente questo manuale. Conservare questo manuale a portata di mano come riferimento futuro.

## 1.1 Convenzioni tipografiche



**PERICOLO!**  
Pericolosità elevata.  
Rischio di scosse elettriche. Prima di eseguire qualsiasi operazione assicurarsi di togliere tensione al prodotto, salvo diversa indicazione.



**PERICOLO!**  
Pericolo di natura meccanica.  
Rischio di schiacciamento o cesoiamento.



**PERICOLO!**  
Superficie calda.  
Evitare il contatto. Le superfici sono calde e potrebbero causare danni alla persona in caso di contatto.



**ATTENZIONE!**  
Pericolosità media.  
L'operazione è molto importante per il corretto funzionamento del sistema. Si prega di leggere attentamente la procedura indicata e di eseguirla secondo le modalità previste.



**INFO**  
Descrizione delle caratteristiche del sistema.  
Si consiglia di leggere attentamente per comprendere le fasi successive.

## 2 Note sul copyright e informazioni sui marchi commerciali

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## 3 Norme di sicurezza



**ATTENZIONE!** L'impianto elettrico al quale è collegata l'unità deve essere dotato di un interruttore di protezione bipolare automatico da 20A max. Tale interruttore deve essere di tipo Listed. La distanza minima tra i contatti deve essere di 3mm. L'interruttore deve essere provvisto di protezione contro la corrente di guasto verso terra (differenziale) e la sovracorrente (magnetotermico).



**ATTENZIONE!** Parti mobili pericolose. Non avvicinare dita e altre parti del corpo.



**ATTENZIONE!** L'installazione e la manutenzione del dispositivo deve essere eseguita solo da personale tecnico qualificato.



**ATTENZIONE!** L'installazione è di tipo TNV-1. Non collegare a circuiti SELV.



**ATTENZIONE!** Per assicurare la protezione contro il rischio di incendio, sostituire i fusibili con lo stesso tipo e valore. I fusibili devono essere sostituiti solo da personale qualificato.



**ATTENZIONE!** Per ridurre il rischio di incendio usare solamente cavi certificati UL Listed o CSA aventi dimensioni maggiori o uguali a 0.13mm<sup>2</sup> (26 AWG).

- Il produttore declina ogni responsabilità per eventuali danni derivanti da un uso improprio delle apparecchiature menzionate in questo manuale. Si riserva inoltre il diritto di modificarne il contenuto senza preavviso. Ogni cura è stata posta nella raccolta e nella verifica della documentazione contenuta in questo manuale. Il produttore, tuttavia, non può assumersi alcuna responsabilità derivante dall'utilizzo della stessa. Lo stesso dicasi per ogni persona o società coinvolta nella creazione e nella produzione di questo manuale.
- Prima di eseguire qualsiasi operazione assicurarsi di togliere tensione al prodotto.
- Non utilizzare cavi con segni di usura o invecchiamento.
- Non effettuare per nessun motivo alterazioni o collegamenti non previsti in questo manuale. L'uso di apparecchi non idonei può portare a gravi pericoli per la sicurezza del personale e dell'impianto.
- Utilizzare solo parti di ricambio originali. Pezzi di ricambio non originali potrebbero causare incendi, scariche elettriche o altri pericoli.
- Prima di procedere con l'installazione, controllare che il materiale fornito corrisponda alle specifiche richieste esaminando le etichette di marcatura (4.2 Marcatura del prodotto, pagina 10).
- Questo dispositivo è stato progettato per essere installato in maniera permanente su un edificio o su una struttura adeguata. Il dispositivo deve essere installato in maniera permanente prima di effettuare qualsiasi operazione.
- La categoria di installazione (detta anche categoria di sovratensione) specifica i livelli della tensione transitoria di rete alla quale l'apparato è soggetto. La categoria dipende dal luogo di installazione e dalla presenza di dispositivi di protezione contro le sovratensioni. Un dispositivo per ambienti industriali, connesso ai rami principali dell'impianto di alimentazione è soggetto alla categoria di installazione III. Se questo è il caso, è richiesta una riduzione alla categoria II. Ciò può essere ottenuto utilizzando un trasformatore di isolamento con schermatura connessa a terra tra il primario ed il secondario, o tramite l'impiego di dispositivi di protezione contro le sovratensioni (SPD), UL listed, connessi tra la fase ed il neutro a tra il neutro e terra. I dispositivi SPD UL listed, dovranno essere predisposti per limitare sovratensioni transitorie in modo ripetitivo e per la seguenti condizioni nominali di funzionamento: Tipo 2 (Dispositivi SPD connessi permanentemente alla rete di alimentazione, per installazioni dal lato del carico del dispositivo di servizio); Corrente nominale di scarica (In) 20kA minimi. Si possono utilizzare ad esempio: FERRAZ SHAWMUT, ST23401PG-CN, ST240SPG-CN specificati per 120Vac/240Vac, (In=20kA). La distanza massima tra l'installazione e la riduzione è di 5m.
- Per i prodotti marcati UL alimentati a 24Vac, utilizzare un trasformatore UL listed Classe 2, conforme alle normative vigenti.
- Un dispositivo di scollegamento, prontamente e facilmente accessibile, deve essere incorporato nell'impianto elettrico dell'edificio per un intervento rapido.
- Il terminale di terra disponibile nel prodotto deve essere collegato permanentemente alla terra.

- Collegare il dispositivo ad una sorgente d'alimentazione corrispondente a quella indicata nell'etichetta di marcatura. Prima di procedere con l'installazione verificare che la linea elettrica sia opportunamente sezionata. La tensione di alimentazione non deve eccedere i limiti ( $\pm 10\%$ ).
- È possibile trasportare il dispositivo solo prestando la massima attenzione. Fermate brusche, dislivelli e impatti violenti possono causare danneggiamenti all'oggetto o ferite per l'utente.
- Per essere conforme ai requisiti della normativa sugli abbassamenti e le brevi interruzioni della tensione di alimentazione, utilizzare un adeguato gruppo di continuità (UPS) per alimentare l'unità.
- Il dispositivo va montato in modo da non essere accessibile al personale diverso dal tecnico/ installatore in quanto, essendo dotato di parti mobili, rimane residuo il pericolo di ferirsi a seguito dei movimenti delle parti mobili.
- Applicare l'etichetta Parti Mobili Pericolose vicino all'unità (Fig. 2, pagina 11).
- Non utilizzare l'apparecchio in presenza di sostanze infiammabili.
- Non permettere l'uso dell'apparecchio a bambini o personale non autorizzato.
- L'apparecchio si considera disattivato soltanto quando l'alimentazione è stata tolta e i cavi di collegamento con altri dispositivi sono stati rimossi.
- La manutenzione del dispositivo deve essere eseguita solo da personale qualificato. Durante le operazioni di manutenzione l'operatore è esposto al rischio di folgorazione o ad altri pericoli.
- Utilizzare solo gli accessori indicati dal costruttore. Qualsiasi cambiamento non espressamente approvato dal costruttore fa decadere la garanzia.
- Collegare a terra il cavo coassiale.
- Prima di collegare tutti i cavi di segnale verificare che l'unità sia opportunamente collegata al circuito di terra.
- Se il dispositivo deve essere rimosso dall'impianto, scollegare sempre per ultimo il cavo di terra.
- Adottare le dovute precauzioni per evitare di danneggiare l'apparecchiatura con scariche elettrostatiche.
- L'unità è stata realizzata per essere collegata con cavo tripolare. Seguire le indicazioni per un corretto collegamento del circuito di terra descritte nel presente manuale.
- Maneggiare con cura l'unità, forti sollecitazioni meccaniche potrebbero danneggiarla.
- Porre particolare attenzione alle distanze di isolamento tra la linea di alimentazione e tutti gli altri cavi compresi i dispositivi di protezione contro i fulmini.

## 4 Identificazione

### 4.1 Descrizione e designazione del prodotto

La telecamera PTZ ULISSE COMPACT THERMAL offre una eccezionale soluzione integrata per un efficace monitoraggio anche nella totale oscurità o in condizioni ambientali estreme, nebbia, pioggia, fumo, o per distanze importanti.

L'unità integra infatti una telecamera visiva e una telecamera termica allineate, con gestione indipendente dei due flussi video.

La telecamera Day/Night è in grado di identificare chiaramente il target in condizioni di luce normale, mentre la visione termica permette il rilevamento di persone ed eventi, nella perfetta oscurità, fumo o nebbia intensa.

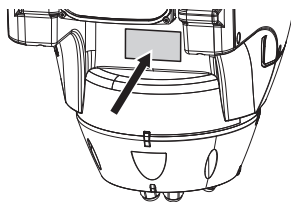
L'utilizzo di questa soluzione è particolarmente utile in applicazioni critiche dove è richiesto un costante e affidabile monitoraggio non-stop di un area outdoor e un infallibile sistema di rilevamento di eventi e presenze, che non richieda interventi di manutenzione.

L'accurata costruzione top-mount permette la visione oltre l'orizzonte e la rotazione continua sull'asse orizzontale e unisce alta velocità ad un'assoluta precisione di puntamento, sia in manuale che in funzione di ronda.

## 4.2 Marcatura del prodotto



Sui brandeggi è applicata una etichetta conforme alla marcatura CE.



**Fig. 1**

L'etichetta riporta:

- Codice di identificazione del modello (Codice a barre Extended 3/9).
- Tensione di alimentazione (Volt).
- Frequenza (Hertz).
- Corrente assorbita (Ampere).
- Grado di protezione (IP).
- Numero di serie.

### 4.2.1 Controllo della marcatura

Prima di procedere con l'installazione controllare che il materiale fornito corrisponda alle specifiche richieste, esaminando le etichette di marcatura.

Non effettuare per nessun motivo alterazioni o collegamenti non previsti in questo manuale. L'uso di apparecchi non idonei può portare a gravi pericoli per la sicurezza del personale e dell'impianto.

## 5 Preparazione del prodotto per l'utilizzo



**Qualsiasi cambiamento non espressamente approvato dal costruttore fa decadere la garanzia.**

### 5.1 Precauzioni di sicurezza prima dell'utilizzo



**L'apparecchiatura comprende parti mobili. Assicurarsi che l'unità venga posizionata in un'area non accessibile durante le normali condizioni di funzionamento. Applicare l'apposita etichetta fornita assieme all'apparecchio nelle sue vicinanze ed in modo ben visibile.**



Fig. 2

### 5.2 Disimballaggio

Alla consegna del prodotto verificare che l'imballo sia integro e non abbia segni evidenti di cadute o abrasioni.

In caso di evidenti segni di danno all'imballo contattare immediatamente il fornitore.

Conservare l'imballo nel caso sia necessario inviare il prodotto in riparazione.

### 5.3 Contenuto

Controllare che il contenuto sia corrispondente alla lista del materiale sotto elencata:

- Unità di posizionamento
- Scatola accessori
- Cavo prolunga seriale
- Etichetta
- Guaina siliconica
- Fascette
- Manuale di istruzioni

### 5.4 Smaltimento in sicurezza dei materiali di imballaggio

I materiali d'imballo sono costituiti interamente da materiale riciclabile. Sarà cura del tecnico installatore smaltirli secondo le modalità di raccolta differenziata o comunque secondo le norme vigenti nel Paese di utilizzo.

In caso di restituzione del prodotto malfunzionante è consigliato l'utilizzo dell'imballaggio originale per il trasporto.

## 5.5 Lavoro preparatorio prima dell'installazione

### 5.5.1 Fissaggio del supporto

Sono disponibili diversi tipi di supporto (9 Accessori, pagina 48). Scegliere il supporto adeguato all'installazione e seguire tutte le istruzioni nel capitolo indicato.

**!** **Porre particolare attenzione ai sistemi di fissaggio dell'apparecchiatura. Se l'apparecchiatura deve essere fissata ad una superficie di calcestruzzo bisogna utilizzare tasselli con coppia di trazione minima pari a 300dN cadauno. Se la superficie è di metallo usare viti di diametro minimo pari a 8mm e di lunghezza appropriata. Il sistema di fissaggio deve essere in grado di reggere almeno 4 volte il peso dell'intera apparecchiatura, comprensiva di brandeggio, lenti e telecamera.**

**!** **Il dispositivo deve essere montato in posizione verticale. Ogni posizionamento alternativo potrebbe compromettere le prestazioni dell'apparecchiatura.**

### 5.5.2 Passaggio cavi

**!** **I cavi di collegamento non devono essere accessibili dall'esterno. I cavi devono essere opportunamente fissati al sostegno per evitare che l'eccessivo peso ne comporti lo sfilamento accidentale.**

**!** **I cavi utilizzati devono essere conformi al tipo di installazione.**

Introdurre i cavi all'interno del supporto in modo che fuoriescano per circa 50cm.

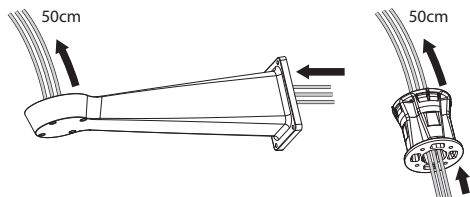


Fig. 3

## 6 Installazione

**!** **Non effettuare per nessun motivo alterazioni o collegamenti non previsti in questo manuale. Il mancato rispetto delle indicazioni fornite nel manuale in merito ai collegamenti può portare a gravi pericoli per la sicurezza del personale e dell'impianto.**

**!** **Non modificare i cablaggi già presenti nel prodotto. Il mancato rispetto di questa indicazione può portare a gravi pericoli per la sicurezza del personale e dell'impianto, oltre a far decadere la garanzia.**

**i** **Mantenere uno schema di collegamento per successive consultazioni.**

### 6.1 Collegamento dei cavi alla base

Introdurre i cavi all'interno dei pressacavi tenendo la base a circa 20cm dal supporto. Serrare i pressacavi. I pressacavi sono adatti per cavi con diametro compreso tra 5mm e 10mm.

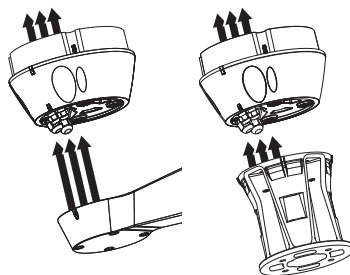


Fig. 4



## 6.2 Fissaggio della base al supporto

 Utilizzare le viti e le rondelle fornite con la base.

Dopo aver posizionato la guarnizione (01), fissare la base (02) sul supporto (03) utilizzando le viti (04), le rondelle dentellate e rondelle piane (05). Inserire gli OR antiperdita viti (06).

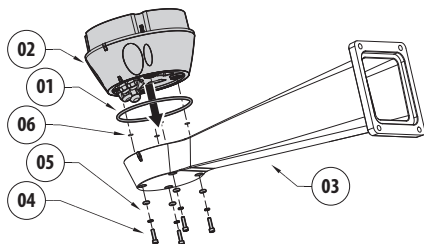


Fig. 5

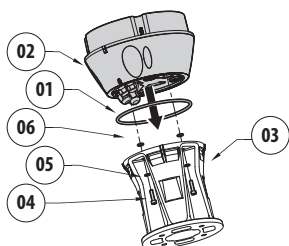


Fig. 6

Allineare le 3 tacche sulla base con quelle presenti sui supporti come illustrato nella figura seguente.

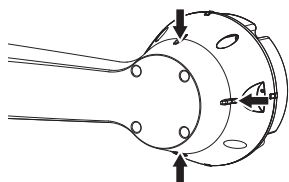


Fig. 7

 Applicare del frenaflessi nei fori delle viti (Loctite 243®).

 Prestare attenzione durante il fissaggio. Coppia di serraggio: 4Nm.

## 6.3 Collegamento della scheda connettori

### 6.3.1 Descrizione della scheda connettori

DESCRIZIONE DELLA SCHEDA	
Connettore	Funzione
J2	Linea di alimentazione
J5/J7	Uscita video
J10	Linee di telemetria

Tab. 1

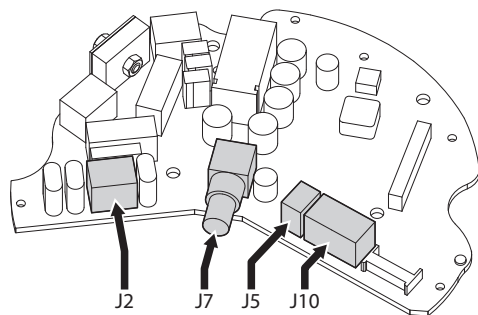


Fig. 8

### 6.3.2 Collegamento della linea di alimentazione

**⚠** Eseguire le connessioni elettriche in assenza di alimentazione e con dispositivo di sezionamento aperto.

**⚠** All'atto dell'installazione controllare che le caratteristiche di alimentazione fornite dall'impianto corrispondano a quelle richieste dal dispositivo.

**⚠** Il cavo di terra deve essere più lungo degli altri due di circa 10mm per prevenirne il distacco accidentale a causa dello stiramento.

**⚠** Controllare che le fonti di alimentazione ed i cavi di collegamento siano in grado di sopportare il consumo del sistema.

**⚠** Il cavo di alimentazione deve essere coperto con la guaina silconica (01) presente nella dotazione. La guaina silconica deve essere fissata con l'apposita fascetta (02).

A seconda della versione, al dispositivo possono essere fornite diverse tensioni di alimentazione. Il loro valore è riportato nell'etichetta identificativa del prodotto (4.2 Marcatura del prodotto, pagina 10).

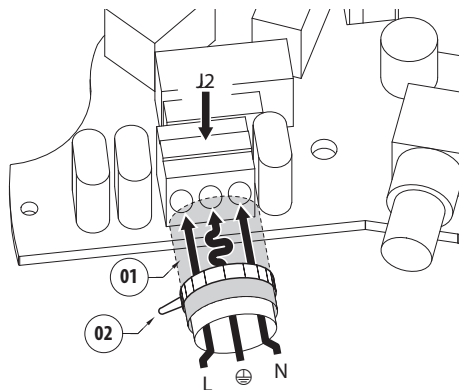


Fig. 9

Collegare i cavi di alimentazione al morsetto J2 come descritto in tabella.

COLLEGAMENTO DELLA LINEA DI ALIMENTAZIONE	
Colore	Morsetti
<b>Alimentazione 24Vac</b>	
Definito dall'installatore	N (Neutro)
Definito dall'installatore	L (Fase)
Giallo/Verde	GND
<b>Alimentazione 230Vac</b>	
Blu	N (Neutro)
Marrone	L (Fase)
Giallo/Verde	GND
<b>Alimentazione 120Vac</b>	
Blu	N (Neutro)
Marrone	L (Fase)
Giallo/Verde	GND

Tab. 2

**⚠** Per i prodotti marcati UL alimentati a 24Vac, utilizzare un trasformatore UL listed Classe 2, conforme alle normative vigenti.

**⚠** Per la connessione della linea di alimentazione utilizzare l'apposita scatola di connessione (UPTJBUL). Per ulteriori informazioni fare riferimento al manuale d'uso ed installazione del prodotto.

## 6.4 Collegamento della scheda connettori secondaria

**⚠ Tutti i cavi di segnale devono essere raggruppati con una fascetta.**

### 6.4.1 Descrizione della scheda secondaria

DESCRIZIONE DELLA SCHEDA	
Connettore	Funzione
CN1/CN2	Relè ed allarme
CN3	Uscita video secondaria
CN4	Controllo della telecamera termica
DS1	Selezione del formato video/Terminazione della linea seriale

Tab. 3

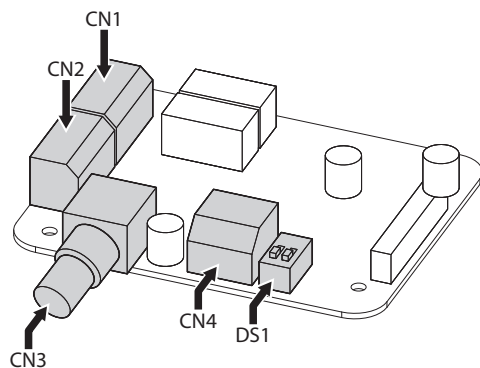


Fig. 10 Scheda allarmi e relè.

### 6.4.2 Collegamento degli ingressi di allarme

Nel caso di allarme a contatto pulito eseguire il collegamento come illustrato in figura.

I contatti degli allarmi sono presenti sul connettore (CN1-CN2).

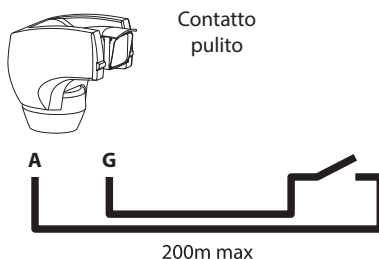


Fig. 11

Il contatto pulito di allarme può essere di tipo NO (normalmente aperto) oppure NC (normalmente chiuso).

Tutti gli allarmi hanno una portata di circa 200m, ottenibile con un cavo non schermato di sezione minima 0.25mm<sup>2</sup> (24 AWG).

### 6.4.3 Collegamento dei relè

**⚠ I relè sono utilizzabili solamente per basse tensioni di lavoro (fino a 30Vac oppure 60Vdc) e con una corrente massima di 1A. Utilizzare cavi di sezione idonea al carico da controllare e compresa tra un minimo di 0.25mm<sup>2</sup> (24 AWG) e un massimo di 1.5mm<sup>2</sup> (16 AWG).**

I morsetti dei relè sono situati nel relativo connettore: Relè ed allarmi (6.4.1 Descrizione della scheda secondaria, pagina 15).

I relè non hanno polarità e pertanto è indifferente usare il morsetto A oppure B dello stesso relè, per tensioni alternate oppure continue.

COLLEGAMENTO DEI RELÈ	
Morsetto	Descrizione
R1A	Relè 1, Morsetto A
R1B	Relè 1, Morsetto B
R2A	Relè 2, Morsetto A
R2B	Relè 2, Morsetto B

Tab. 4

**i Per ulteriori informazioni fare riferimento al relativo capitolo (8.1.12.1 Menù Allarmi, pagina 40).**

## 6.5 Collegamento di uno o più cavi video



L'impianto è di tipo CDS (Cable Distribution System). Non collegare a circuiti SELV.

### 6.5.1 Collegamento del video principale

Il segnale video è presente sui connettori J5 e J7 della scheda. Utilizzare sempre un solo connettore.

**Connettore J5:** Collegare rispettivamente lo schermo e il cavo centrale ai morsetti GND e CVBS.

**Connettore J7:** Collegare il cavo coassiale al connettore BNC (non fornito) e poi connetterlo al connettore J7.

I morsetti accettano cavi di sezione compresa tra  $1.5\text{mm}^2$  (16 AWG) e  $0,5\text{mm}^2$  (30 AWG).

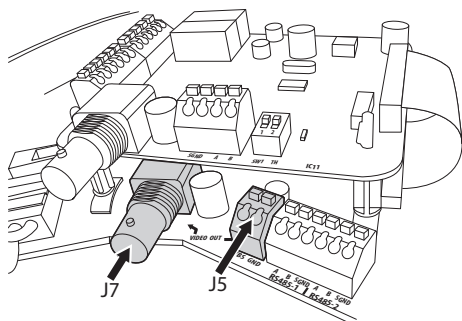


Fig. 12

### 6.5.2 Collegamento del video secondario

Collegare il cavo coassiale al connettore BNC (non fornito) e poi connetterlo al connettore CN3.

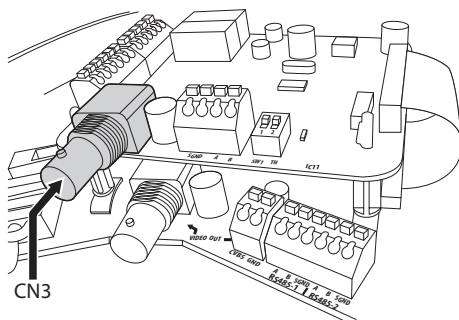


Fig. 13

### 6.5.3 Uscita dei segnali video (versione con doppia telecamera)

Descrizione delle uscite video:

- **Video principale:** L'uscita è usata per la trasmissione del segnale video del modulo integrato (connettori J5, J7).
- **Video secondario:** L'uscita è usata per la trasmissione del segnale video del modulo termico (connettore CN3)

### 6.5.4 Uscita del segnale video (versioni con la sola telecamera termica)

Descrizione delle uscite video:

- **Video principale:** In tutti i modelli con la sola telecamera termica l'uscita video principale è usata per la trasmissione del segnale video della telecamera termica (connettori J5, J7).
- **Video secondario:** Il segnale video secondario non è utilizzato (connettore CN3)

## 6.6 Collegamento della linea di controllo diretto della telecamera termica RS-485-3 (solo versioni con doppia telecamera)

La telecamera termica può essere controllata dall'esterno tramite la linea seriale (CN4, 8.1.16 Menù Camera Termica, pagina 42).

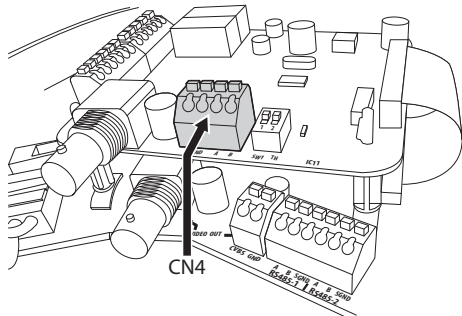


Fig. 14

## 6.7 Impostazione formato video DS1 (solo versioni con telecamera termica)

Il dip-switch 1 seleziona il tipo di formato video in uscita.

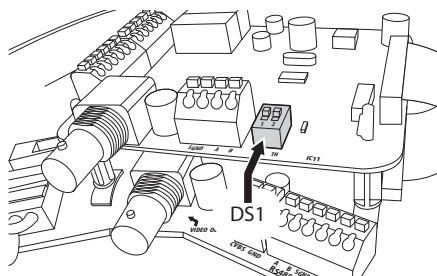


Fig. 15

CONFIGURAZIONE DEL VIDEO E DELLA TELEMETRIA (DS1)			
Descrizione	SW1	SW2	Configurazione
Formato del segnale video	On	-	Formato video PAL
	Off	-	Formato video NTSC

Tab. 5

## 6.8 Terminazione della linea seriale RS-485-3 (DS1)

Il dip-switch 2 abilita la terminazione (120 Ohm) della linea seriale.

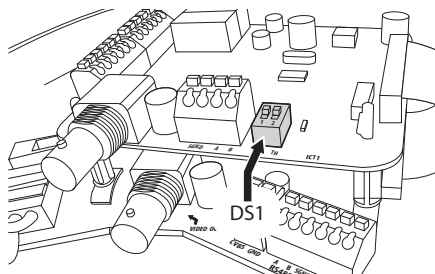


Fig. 16

CONFIGURAZIONE DEL VIDEO E DELLA TELEMETRIA (DS1)			
Descrizione	SW1	SW2	Configurazione
Terminazione della linea seriale	-	On	Terminazione RS-485-3 abilitata
	-	Off	Terminazione RS-485-3 disabilitata

Tab. 6

## 6.9 Collegamento dell'impianto di lavaggio di lavaggio

**i** Per ulteriori dettagli sulla configurazione e l'utilizzo fare riferimento al manuale del relativo accessorio.

**i** Quando l'impianto di lavaggio viene abilitato, il relè 2 è utilizzato esclusivamente per l'attivazione della pompa (8.1.13 Menù Impianto Di Lavaggio, pagina 41).

## 6.10 Fissaggio del corpo superiore

Orientare il connettore autocentrante (01) dell'unità superiore. Orientare la sporgenza laterale (02) nel senso di visione frontale della telecamera. Posizionare l'unità superiore sulla base con l'orientamento illustrato in figura.

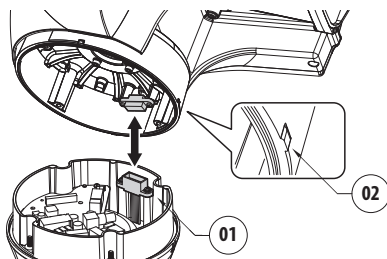


Fig. 17

In questo modo le sporgenze laterali sulla base e sull'unità superiore sono allineate nell'unica posizione possibile.

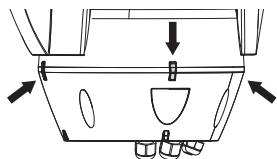


Fig. 18

Fissare l'unità superiore (01) alla base (02) tramite le viti di fissaggio (03), le rondelle dentellate (04) e le rondelle piane (05). Controllare che sia presente ed in buono stato la guarnizione della base (06).

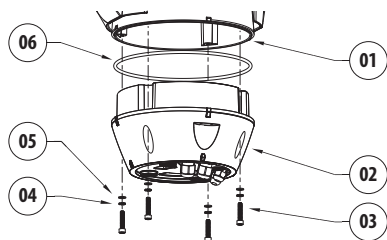


Fig. 19

**⚠ Applicare nei fori delle viti del frenafiletti tipo Loctite 243®.**

**⚠ Prestare attenzione durante il fissaggio. Coppia di serraggio: 4Nm.**

## 6.11 Configurazione hardware

### 6.11.1 Apertura dello sportellino di configurazione

Prima di alimentare il dispositivo, è necessario configurarlo correttamente tramite i dip-switch presenti all'interno dello sportellino di configurazione. Aprire lo sportellino svitando le viti come illustrato in figura.

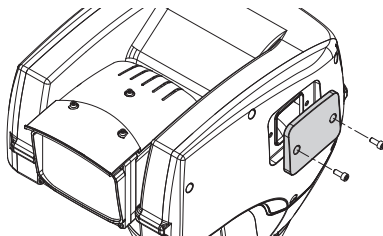


Fig. 20

## 6.11.2 Impostazione modo verifica settaggi (DIP 1)

SW 1=ON: Visualizza Configurazione. Da usare solo come verifica della configurazione alla fine dei settaggi. Durante il normale utilizzo assicurarsi che la levetta sia su OFF (SW 1=OFF).

## 6.11.3 Configurazione del baud rate

### Per impostare il baud rate agire sul DIP 1.

Gli switch 4, 3 e 2 sono utilizzati per selezionare la velocità di comunicazione del dispositivo.

CONFIGURAZIONE DEL BAUD RATE (DIP 1)						
Descrizione	SW 1	SW 2	SW 3	SW 4	SW 5-6-7-8	Configurazione
Selezione del baud rate	-	ON	ON	ON	-	38400 baud
	-	OFF	ON	ON	-	19200 baud
	-	ON	OFF	ON	-	9600 baud
	-	OFF	OFF	ON	-	4800 baud
	-	ON	ON	OFF	-	2400 baud
	-	OFF	ON	OFF	-	1200 baud
	-	ON	OFF	OFF	-	600 baud
-	OFF	OFF	OFF	-	300 baud	
Visualizzazione configurazioni	ON	-	-	-	-	Visualizzazione abilitata
	OFF	-	-	-	-	Visualizzazione disabilitata

Tab. 7

## 6.11.4 Configurazione delle linee di comunicazione seriali

### Per impostare le linee di comunicazioni seriali agire sul DIP 1.

Il prodotto prevede le seguenti linee seriali per la comunicazione:

- RS-485: 2 linee

La configurazione delle linee seriali va effettuata tramite i seguenti dip-switch:

- DIP 1: SW 5-SW 6

CONFIGURAZIONE DELLE LINEE DI COMUNICAZIONE SERIALI (DIP 1)					
Descrizione	SW 1-2-3-4	SW 5	SW 6	SW 7-8	Configurazione (vedi relativi capitoli)
Linee seriali	-	ON	ON	-	Linea RS-485 TX/RX bidirezionale
	-	OFF	ON	-	Linea RS-485-1 ricezione, linea RS-485-2 ripetizione
	-	ON	OFF	-	Linea RS-422 bidirezionale
	-	OFF	OFF	-	Linea RS-485 monodirezionale

Tab. 8

### 6.11.4.1 Linea RS-485 TX/RX bidirezionale

Questa impostazione permette di ottenere una comunicazione bidirezionale half-duplex sulla linea RS-485-1.

La linea seriale RS-485-2 non è utilizzata.

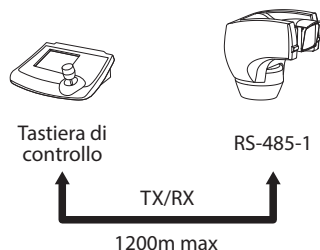


Fig. 21

### 6.11.4.2 Linea RS-485-1 ricezione, linea RS-485-2 ripetizione

Questa impostazione permette di collegare più dispositivi in cascata. Il segnale è rigenerato da ogni unità permettendo di aumentare notevolmente la distanza totale.

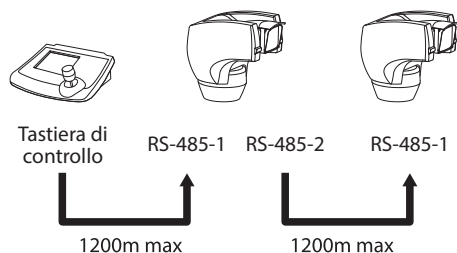


Fig. 22

**i** Questa configurazione è utilizzabile solo con protocolli monodirezionali.

**i** In questa configurazione non è possibile fare l'aggiornamento del firmware da remoto.

### 6.11.4.3 Linea RS-422 bidirezionale

Questa impostazione consente la comunicazione in full duplex secondo lo standard RS-422.

La linea RS-485-1 è sempre in ricezione (RS-422-RX).

La linea RS-485-2 è sempre in trasmissione (RS-422-TX).

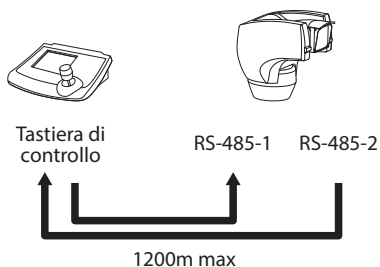


Fig. 23

### 6.11.4.4 Linea RS-485 monodirezionale

La prima linea (RS485-1) funzionerà secondo le impostazioni settate con i dip-switch Indirizzo, Baudrate e Protocollo.

La linea RS-485-2 non è utilizzata.

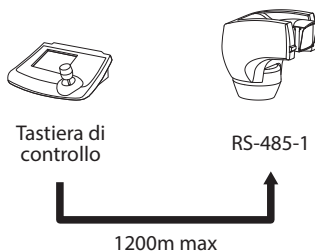


Fig. 24

**i** Questa configurazione è utilizzabile solo con protocolli monodirezionali.

**i** In questa configurazione non è possibile fare l'aggiornamento del firmware da remoto.



### 6.11.5 Terminazione delle linee seriali

**Per impostare la terminazione delle linee seriali agire sul DIP 1.**

Sulla scheda sono presenti due dip-switch usati per configurare la terminazione (120 Ohm) della linea seriale (Tab. 9, pagina 21).

Ogni periferica che si trovi a fine linea deve essere terminata utilizzando l'apposito dip-switch in modo da evitare riflessioni e deformazioni del segnale.

TERMINAZIONE DELLE LINEE SERIALI (DIP 1)				
Descrizione	SW 1-2-3-4-5-6	SW 7	SW 8	Configurazione
Terminazione delle linee seriali	-	-	ON	Linea RS-485-2, terminazione abilitata
	-	-	OFF	Linea RS-485-2, terminazione disabilitata
	-	ON	-	Linea RS-485-1, terminazione abilitata
	-	OFF	-	Linea RS-485-1, terminazione disabilitata

Tab. 9

### 6.11.6 Configurazione del protocollo



**Nel caso di versioni con encoder video digitale è necessario impostare il protocollo su NETWORK.**

**Per impostare il protocollo agire sul DIP 3.**

Il brandeggio è controllabile mediante vari protocolli.

CONFIGURAZIONE DEL PROTOCOLLO (DIP 3)				
SW 1	SW 2	SW 3	SW 4	Configurazione
OFF	ON	OFF	OFF	AMERICAN DYNAMICS
OFF	OFF	ON	OFF	ERNITEC
OFF	ON	ON	OFF	NETWORK
ON	OFF	ON	OFF	PANASONIC
ON	OFF	OFF	OFF	PELCO D
OFF	OFF	OFF	OFF	VIDEOTEC MACRO

Tab. 10

### 6.11.7 Configurazione dell'indirizzo

**Per impostare l'indirizzo agire sul DIP 2.**

È possibile impostare l'indirizzo del brandeggio: da 1 a 1023. La selezione dell'indirizzo avviene secondo la codifica binaria, tramite i dip-switch (A Appendice - Tabella degli indirizzi, pagina 65).

## 7 Accensione



La procedura di preriscaldamento automatico (De-Ice) si potrebbe attivare tutte le volte che il dispositivo viene acceso ad una temperatura ambiente inferiore a 0°C. La procedura serve a garantire la corretta funzionalità del dispositivo anche alle basse temperature. La durata varia tra 60 e 120 minuti a seconda delle condizioni.

Collegare l'alimentazione elettrica per accendere l'unità.

Scollegare l'alimentazione elettrica per spegnere l'unità.

### 7.1 Prima accensione



**Assicurarsi che l'unità e gli altri componenti dell'impianto siano chiusi in modo idoneo a impedire il contatto con componenti sotto tensione.**



**Accertarsi che tutte le parti siano fissate in maniera solida ed affidabile.**

Alla prima accensione è sempre utile verificare la corretta configurazione del dispositivo.

Per fare questo è necessario togliere l'alimentazione, rimuovere lo sportellino di protezione dei dip-switch e porre la levetta del dip-switch di Visualizza Configurazione (DIP1, SW1) su ON.

Alimentare il dispositivo. Dopo pochi secondi sarà possibile verificare a monitor la configurazione impostata.

Conclusa la verifica, spegnere il dispositivo e abbassare nuovamente la levetta del dip-switch di Visualizza Configurazione (DIP1, SW1).

Chiudere lo sportellino ed alimentare di nuovo il dispositivo.

## 7.2 Lista dei controlli



Se uno dei controlli non supera il test (ERR), contattare il centro assistenza. La scritta "-.-" significa che il brandeggio non è provvisto dell'opzione descritta.



Il contenuto di questo capitolo non si applica alle versioni con encoder video digitale.

Durante la fase di accensione il dispositivo visualizza la lista dei controlli che deve effettuare prima di passare al funzionamento normale.

```
ACCENSIONE
Letture parametri....OK
Ricerca zero.....OK
Telecamera.....36x.OK
Sonde di temperatura.OK
Faro Infrarosso.....--
Tergicristallo.....--
Scheda Opzionale.....--
```

Fig. 25

## 8 Configurazione

La configurazione del prodotto può essere effettuata utilizzando uno dei seguenti strumenti:

- Interfaccia OSM (On Screen Menu): Configurazione tramite testo su segnale video analogico.
- Interfaccia software: Configurazione tramite applicazione installata su PC.
- Interfaccia web: Configurazione tramite browser.

### 8.1 Interfaccia OSM (On Screen Menu)

#### 8.1.1 Uso dell'OSM

Durante il normale funzionamento dell'unità è possibile attivare l'OSM per la selezione e la configurazione delle funzioni avanzate. Per ulteriori informazioni fare riferimento al manuale della tastiera utilizzata e al relativo capitolo (10.13 Comandi speciali, pagina 52).

Uscire dall'OSM con Zoom Wide (Zoom-).

---

**i** Il menù si autoconfigura dinamicamente a seconda del modello di brandeggio.

---

#### 8.1.1.1 Come usare il joystick

Tutte le operazioni nei menù sono eseguite utilizzando il joystick.

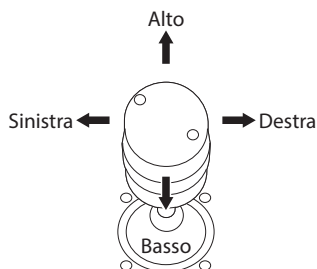


Fig. 26 Pan e tilt.

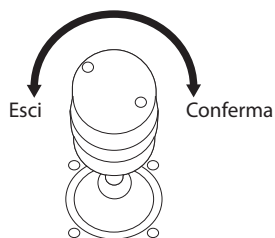


Fig. 27 Zoom Wide e Zoom Tele.

---

**i** Nel caso si usino tastiere di controllo con joystick a due assi, utilizzare i pulsanti di Zoom Wide e Zoom Tele per inviare i comandi Esci e Conferma.

---

## 8.1.2 Come muoversi nei menù

Ogni videata dell'OSM presenta una lista di parametri o di sottomenù che possono essere selezionati dall'operatore. Per scorrere i vari parametri muovere il cursore agendo sul joystick (alto e basso).

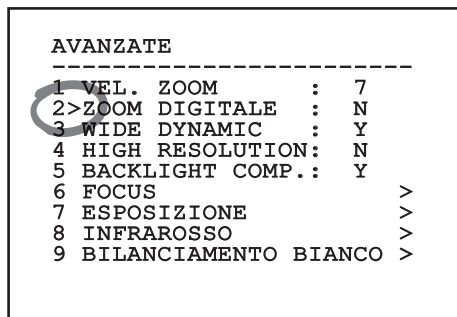


Fig. 28

Il simbolo > a fine riga indica la presenza di uno specifico sottomenù. Per attivarlo è sufficiente confermare la voce del menù. Per uscire dal sottomenù, usare la funzione Esci (Zoom Wide).

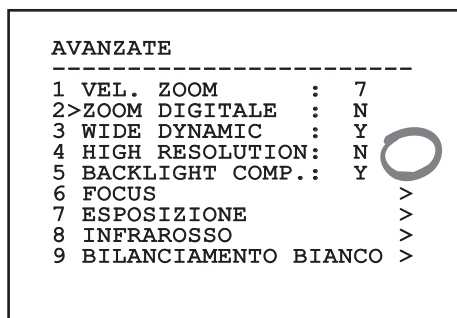


Fig. 29

## 8.1.3 Come modificare i parametri

Spostarsi con il cursore in corrispondenza del parametro che si intende modificare e confermare. Il campo comincerà a lampeggiare indicando che è in modifica. Agendo con il joystick (alto e basso) saranno mostrate le possibili scelte.

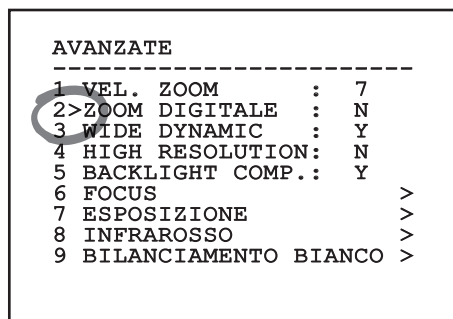


Fig. 30

Individuata l'opzione desiderata, confermare.

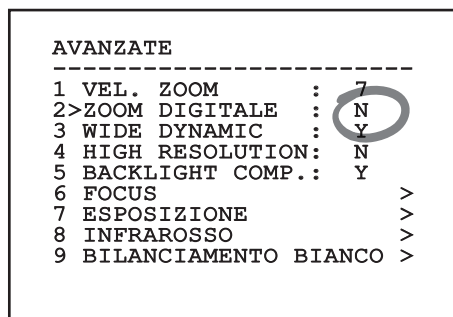


Fig. 31

Il campo smetterà di lampeggiare a conferma della preferenza.

## 8.1.4 Come modificare i campi numerici

Spostarsi con il cursore in corrispondenza del parametro che si intende modificare e confermare.

```

MODIFICA PRESET
-----
1 NR.      :      1
2 ABIL.   :      N
3>PAN     :+   0.00
4 TILT    :+   0.00
5 ZOOM    :      0
6 FOCUS   :  4096
7 VEL.    :  100.0
8 PAUSA   :      1
9 TESTO: Text 001
    
```

Fig. 32

La prima cifra del campo numerico in modifica lampeggia e l'ultima riga dello schermo mostra i limiti di accettazione del campo. Muoversi sul campo (sinistra e destra) e cambiare il segno oppure il valore numerico (alto e basso).

```

MODIFICA PRESET
-----
1 NR.      :      1
2 ABIL.   :      N
3>PAN     :+000.00
4 TILT    :+  0.00
5 ZOOM    :      0
6 FOCUS   :  4096
7 VEL.    :  100.0
8 PAUSA   :      1
9 TESTO: Text 001
min:-180.00 max:+179.99
    
```

Fig. 33

A risultato ottenuto confermare. Il cursore ritorna a sinistra e la cifra modificata smetterà di lampeggiare. Il campo sarà forzato al valore minimo o al massimo consentito se si tenta di inserire un valore non previsto.

## 8.1.5 Come modificare i testi

Spostarsi con il cursore in corrispondenza del parametro che si intende modificare e confermare.

```

MODIFICA AREA
-----
1 NR      :      1
2 START:+ 0.00
3 STOP  :+  0.00
4>TESTO:TXT AREA1
    
```

Fig. 34

Apparirà la schermata di modifica del testo. Il simbolo freccia si posiziona sotto il carattere modificabile mentre il cursore > si posiziona alla sinistra del carattere selezionato.

```

EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
>A B C D E F G   ERASE
  H I J K L M N   SAVE
  O P Q R S T U   EXIT
  V W X Y Z 0 1   abc
  2 3 4 5 6 7 8
  9 : ; . / ? !
  \ + - * / = "
  < > SPACE ← →
    
```

Fig. 35

È possibile navigare all'interno del menù usando il joystick.

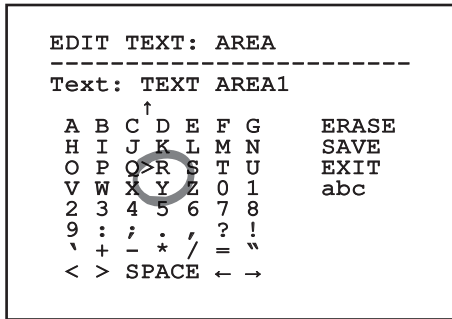


Fig. 36

Il comando Conferma (Zoom Tele) inserisce il carattere desiderato.

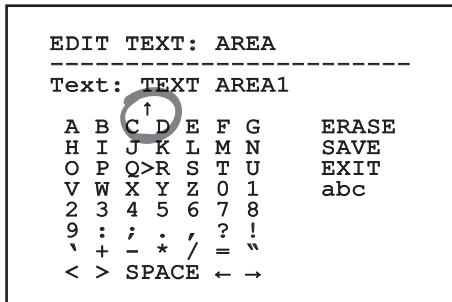


Fig. 37

Usare:

- **ERASE:** Cancella l'intera stringa di testo.
- **SAVE:** Salva il nuovo testo prima di uscire dal menù.
- **EXIT:** Esce dal menù.
- **abc:** Visualizza i caratteri minuscoli.

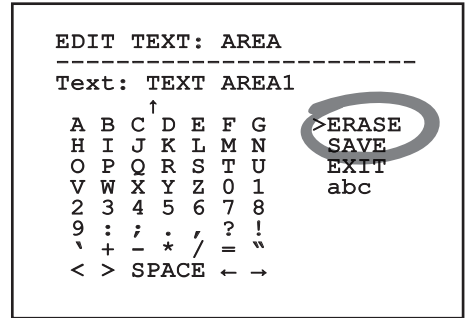


Fig. 38

Per uscire dal menù è possibile usare anche il comando Zoom Wide.

## 8.1.6 Configurazione tramite OSM

Di seguito verranno illustrate le schermate che servono a configurare il prodotto.

### 8.1.7 Menù Principale

Dal menù principale è possibile accedere alla configurazione del dispositivo.

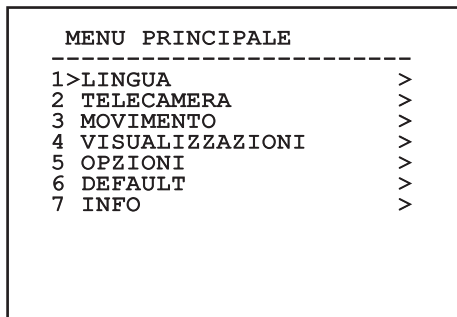


Fig. 39

### 8.1.8 Menù Scelta Lingua

Il menù permette di selezionare la lingua desiderata.

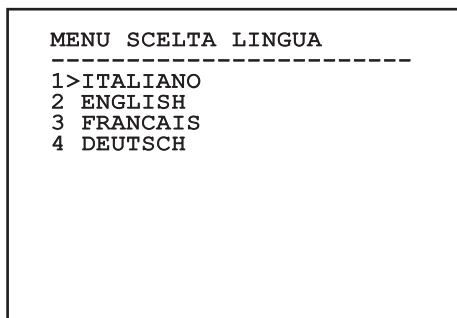


Fig. 40

## 8.1.9 Menù telecamera

- Configurazione:** Imposta una delle configurazioni predefinite per il modulo SONY:
  - **Standard:** Imposta la modalità di funzionamento standard della telecamera.
  - **Low Light:** Imposta la modalità di funzionamento pensata per ambienti con scarsa luminosità.
  - **Far Mode:** Imposta la modalità di funzionamento pensata per aree di grandi dimensioni. Abilita lo zoom proporzionale e lo zoom digitale.
  - **Custom:** Segnala che i parametri della telecamera sono stati scelti manualmente dall'utente.
- Titolazione Aree:** Permette di entrare nel sottomenù per la gestione della titolazione delle aree.
- Mascheratura:** Permette di entrare nel sottomenù per la gestione della mascheratura dinamica.
- Avanzate:** Permette di entrare nel sottomenù per l'impostazione dei parametri avanzati del modulo SONY.

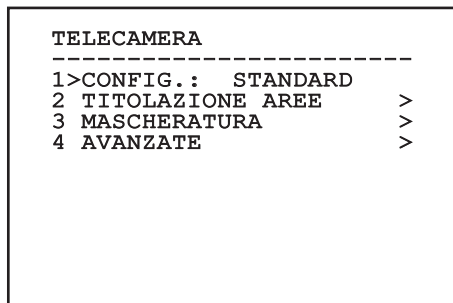


Fig. 41

### 8.1.9.1 Menù Titolazione Aree

Questa funzione consente di impostare fino a otto zone (di dimensioni variabili) con possibilità di titolazione.

1. **Abilitazione:** Abilitare la visualizzazione sullo schermo del messaggio associato all'area raggiunta.
2. **Modifica Area:** Permette di entrare nel sottomenù per l'impostazione dei parametri delle aree.

```
TITOLAZIONE AREE
-----
1>ABILITAZIONE: N
2 MODIFICA AREA      >
```

Fig. 42

### 8.1.9.2 Menù Titolazione Aree (Modifica Area)

Una volta entrati nel menù è possibile impostare i seguenti parametri:

1. **Numero:** Seleziona l'area da modificare.
2. **Start:** Imposta la posizione iniziale dell'area.
3. **Stop:** Imposta la posizione finale dell'area
4. **Testo:** Modifica il testo che viene visualizzato quando ci si muove all'interno dell'area.

```
MODIFICA AREA
-----
1>NR      :      1
2 START :+  0.00
3 STOP  :+  0.00
4 TESTO:TXT AREA1
```

Fig. 43

**Esempio:** Per attivare la titolazione dell'area 1 quando il dispositivo si trova tra +15° e +45° è necessario:

- Abilitare la titolazione delle aree, impostando S come valore della voce Abilitazione del menù Titolazione Aree.
- Impostare 1 come valore del parametro Nr del menù Modifica Area.
- Impostare +15.00 come valore del parametro Start del menù Modifica Area.
- Impostare +45.00 come valore del parametro Stop del menù Modifica Area.
- Se necessario, modificare il testo visualizzato selezionando la voce Testo del menù Modifica Area.

**i** Ponendo a zero i valori di Start e Stop del menù Modifica Area si disabilita la visualizzazione della scritta. In caso di sovrapposizione di più aree prevale quella di numero superiore.

**i** Per la definizione delle aree seguire il senso orario come illustrato in figura.

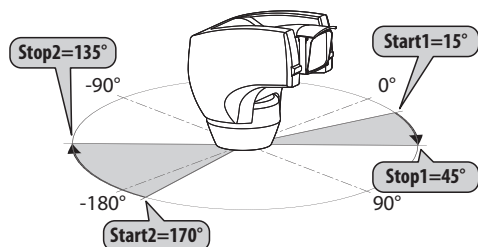


Fig. 44

**i** Il nome e la posizione di default delle aree del brandeggio fanno riferimento ai quattro punti cardinali. La posizione del NORD si modifica tramite il parametro Offset Pan del menu movimento (8.1.10 Menù Movimento, pagina 35).



### 8.1.9.3 Menù Mascheratura

La mascheratura dinamica permette di creare fino ad un massimo di 24 maschere in modo da ottenere l'oscuramento di particolari aree definite dall'utente.

Le maschere vengono definite nello spazio e tengono conto della posizione orizzontale, verticale e di profondità dello zoom al momento dell'impostazione.

L'unità provvede automaticamente a mantenere la posizione e la dimensione della mascheratura, in funzione dell'area visualizzata.

È possibile visualizzare fino ad un massimo di 8 maschere contemporaneamente.

Se si usa il dispositivo al massimo della velocità, i tempi di aggiornamento del segnale video diventano critici e si devono creare delle maschere più grandi dell'oggetto, in modo da nascondere per più tempo durante il passaggio e non rischiare di vederlo.

**i** Per garantire la piena funzionalità, la posizione in tilt della maschera deve essere sempre compresa tra -70 e +70 gradi, inoltre, rispetto all'oggetto da coprire la dimensione della maschera deve essere doppia (sia in altezza che in larghezza).

Permette di configurare i seguenti parametri:

1. **Colore Maschera:** Permette di scegliere il colore delle maschere.
2. **Modifica Maschere:** Permette di accedere al sottomenù Modifica Maschere ed impostare i parametri di mascheratura dinamica.

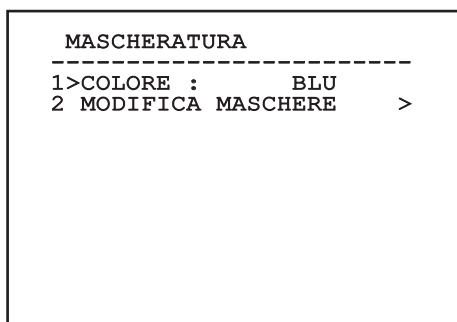


Fig. 45

### 8.1.9.4 Menù Mascheratura (Modifica Maschere)

Permette di configurare i seguenti parametri:

1. **Maschera Numero:** Permette di scegliere su quale maschera agire.
2. **Abilita Maschera:** Abilita o disabilita la maschera selezionata.
3. **Modifica Maschera:** Permette di creare o modificare una maschera.

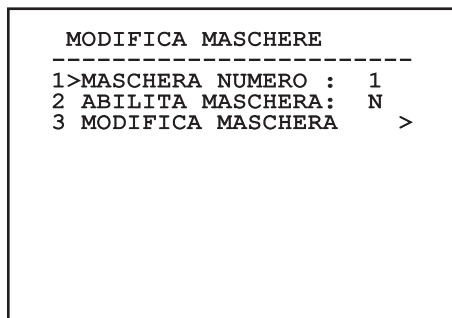


Fig. 46

Se si seleziona l'opzione Modifica Maschera del menù, si abilita la possibilità di impostare i nuovi valori della maschera selezionata.

### 8.1.9.5 Come creare una nuova maschera

Scegliere una maschera non abilitata selezionando dal menù Modifica Maschere la voce Maschera Numero. Per modificarla seleziona la voce Modifica Maschera (Fig. 46, pagina 29).

Nell'esempio che segue andremo a mascherare un fiore.

- Premere il pulsante Iris Close per passare dalla modalità Mascheratura alla modalità Muovi Camera.

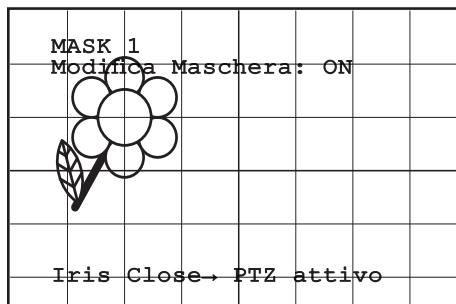


Fig. 47

- Agendo sul joystick della tastiera muovere l'unità ed eventualmente agire con lo zoom fino ad ottenere il fiore centrato nello schermo.

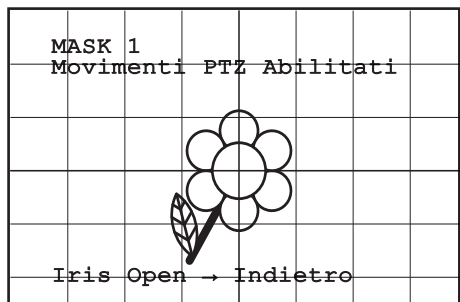


Fig. 48

- Una volta ottenuto il risultato desiderato premere il pulsante Iris Open.

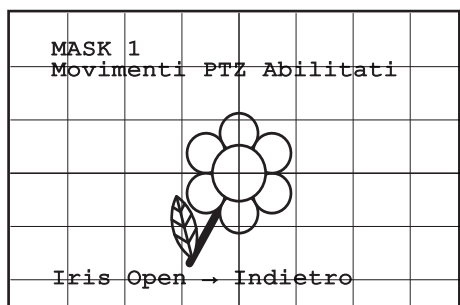


Fig. 49

- Apparirà un piccolo rettangolo. Agendo sul joystick (Pan e Tilt) ingrandire il rettangolo fino a coprire tutto il fiore.

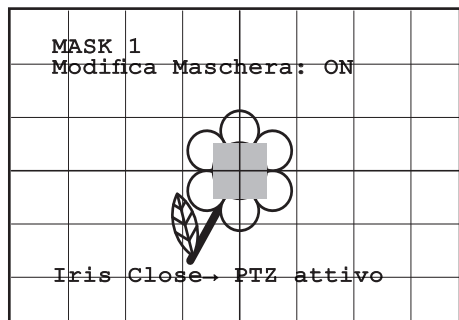


Fig. 50

- Una volta ottenuto il risultato desiderato confermare ruotando lo zoom su tele.

### 8.1.9.6 Come modificare una maschera

Scegliere una maschera abilitata selezionando dal menù Modifica Maschere la voce Maschera Numero ( Fig. 46, pagina 29). Per modificarla seleziona la voce Modifica Maschera.

- Agendo sul joystick (Pan e Tilt) ingrandire o ridurre il rettangolo fino ad ottenere l'effetto desiderato.

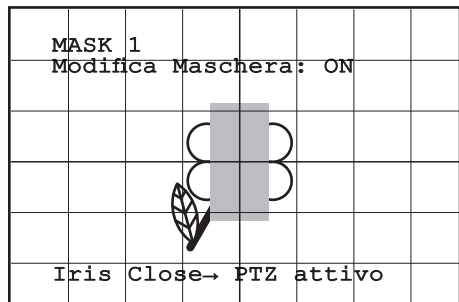


Fig. 51

- Confermare ruotando lo zoom su tele.

### 8.1.9.7 Menù Configurazioni Avanzate

Accedendo a questo menù è possibile configurare il modulo SONY.

1. **Zoom:** Permette di accedere al sottomenù Zoom.



Fig. 52

### 8.1.9.8 Menù Configurazioni Avanzate (Zoom)

1. **Velocità Zoom:** Imposta la velocità dello zoom. I valori di velocità sono compresi tra 0 (minima velocità) e 7 (massima velocità).
2. **Zoom Digitale:** Abilita lo zoom digitale.

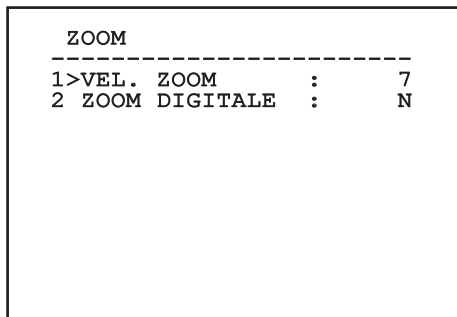


Fig. 53

### 8.1.9.9 Menù Configurazioni Avanzate (Focus)

Permette di configurare i seguenti parametri:

1. **Velocità Focus:** Imposta la velocità del Focus. I valori di velocità sono compresi tra 0 (minima velocità) e 7 (massima velocità).
2. **Autofocus:** Abilita o disabilita l'autofocus. Se attivo, consente di richiamare automaticamente l'Autofocus ad ogni posizionamento o movimento dello zoom, a seconda del tipo di funzionamento selezionato.
3. **Tipo Autofocus:** Imposta il tipo di Autofocus. I valori possibili sono:
  - **Normale:** L'autofocus è sempre abilitato.
  - **Intervallo:** Richiamo della funzione autofocus ad intervalli. Il richiamo è fissato ogni 5 secondi.
  - **Trigger:** Richiamo dell'autofocus ad ogni movimento PTZ. È la soluzione consigliata.
4. **Sensibilità:** Imposta il tipo di sensibilità. I valori possibili sono:
  - **Normale:** Messa a fuoco alla velocità più alta. È la soluzione consigliata.
  - **Bassa:** Messa a fuoco rallentata. È utile in caso di scarsa luminosità ambientale perché rende più stabile l'immagine.

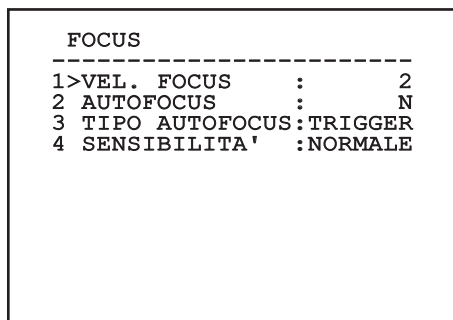


Fig. 54

### 8.1.9.10 Menù Configurazioni Avanzate (Esposizione)

Permette di configurare i seguenti parametri:

- 1-5. **Modo:** Imposta il tipo di controllo dell'esposizione: Automatica, Manuale, Shutter, Iris e Bright.
6. **Auto Slowshutter:** Se abilitata, aumenta automaticamente il tempo di esposizione per migliorare la funzione notturna.
- 7-8. **Compensazione, Valore Compensazione:** Imposta la compensazione dell'esposizione.
9. **Compensazione Backlight:** Abilita la funzione Compensazione Backlight. Permette di vedere meglio eventuali zone buie nell'immagine.

Con la modalità automatica è possibile abilitare anche la compensazione Backlight.

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.

La modalità di gestione dell'esposizione selezionata viene associata a tutti i preset.

L'impostazione consigliata è Automatico.

ESPOSIZIONE	
1>MODO :	AUTOMATICO
6 AUTO SLOW SHUTTER :	S
7 COMPENSAZIONE :	N
8 COMPENSAZIONE VAL. :	7
9 BACKLIGHT COMP. :	N

Fig. 55

La tabella seguente riporta la corrispondenza tra i valori introdotti e l'effetto sull'ottica del modulo SONY.

CORRISPONDENZA VALORE/EFFETTO OTTICA MODULO SONY					
Valore	Shutter		Iris	Gain	Compensazione esposizione
	NTSC	PAL			
0	1/1	1/1	Chiuso	-3db	-10,5db
1	1/2	1/2	F28	0db	-9db
2	1/4	1/3	F22	2db	-7,5db
3	1/8	1/6	F19	4db	-6db
4	1/15	1/12	F16	6db	-4,5db
5	1/30	1/25	F14	8db	-3db
6	1/60	1/50	F11	10db	-1,5db
7	1/90	1/75	F9.6	12db	0db
8	1/100	1/100	F5	14db	1,5db
9	1/125	1/120	F6.8	16db	3db
10	1/180	1/150	F5.6	18db	4,5db
11	1/250	1/215	F4.8	20db	6db
12	1/350	1/300	F4	22db	7,5db
13	1/500	1/425	F3.4	24db	9db
14	1/725	1/600	F2.8	26db	10,5db
15	1/1000	1/1000	F2.4	28db	
16	1/1500	1/1250	F2		
17	1/2000	1/1750	F1.6		
18	1/3000	1/2500			
19	1/4000	1/3500			
20	1/6000	1/6000			
21	1/10000	1/10000			

Tab. 11

### 8.1.9.11 Menù Configurazioni Avanzate (Infrarosso)

Permette di configurare i seguenti parametri:

1. **Modo IR:** Se settato OFF forza la modalità diurna in modo continuativo (l'accensione dell'illuminatore, se presente, si effettua tramite interruttore crepuscolare o apposito comando da tastiera). Se settato ON forza la modalità notturna in modo continuativo. Se settato Auto attiva la commutazione automatica della camera.
2. **Soglia Notte:** Imposta la soglia di rilevamento delle condizioni di luce per la commutazione in modalità notturna. A valori inferiori corrispondono livelli di luminosità più bassi.
3. **Ritardo Notte:** Imposta il tempo di rilevamento delle condizioni di oscurità, espresso in secondi, prima della commutazione in modalità notturna.
4. **Soglia Giorno:** Imposta la soglia di rilevamento delle condizioni di luce per la commutazione in modalità diurna. A valori inferiori corrispondono livelli di luminosità più bassi.
5. **Ritardo Giorno:** Imposta il tempo di rilevamento delle condizioni di luce, espresso in secondi, prima della commutazione in modalità diurna.
6. **Cut Off Filter:** Se impostato su S, il brandeggio opera normalmente. Se impostato su N, la camera non commuta tra modalità giorno e notte ma funziona solo in modalità giorno. Nel caso sia impostato a N, l'illuminatore, se presente, viene acceso e spento secondo le impostazioni della voce Modo IR.



Per evitare false commutazioni si consiglia di scegliere i valori di soglia e ritardo di commutazione diurna più elevati.

INFRAROSSO		
-----		
1	>MODO IR	: AUTO
2	SOGLIA NOTTE	: 5
3	RITARDO NOTTE	: 5
4	SOGLIA GIORNO	: 20
5	RITARDO GIORNO	: 30
6	CUT OFF FILTER:	S

Fig. 56

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.



**La modalità di commutazione Day/Night automatica del modulo è fortemente sconsigliata quando il brandeggio è soggetto a repentine variazioni di luce durante il periodo notturno, per esempio nell'esecuzione di un percorso di patrol o a causa dell'accensione di dispositivi di illuminazione ausiliari. Queste situazioni potrebbero causare numerose commutazioni indesiderate, compromettendo così il funzionamento del modulo stesso.**

### 8.1.9.12 Menù Configurazioni Avanzate (Bilanciamento Bianco)

Permette di configurare i seguenti parametri:

1. **Modo:** Imposta il tipo di controllo del bilanciamento del bianco. I valori possibili sono:
  - **Automatico:** Impone il bilanciamento del bianco automatico. È la soluzione consigliata.
  - **Manuale:** Abilita l'impostazione manuale dei guadagni di rosso e blu.
  - **Outdoor:** Imposta dei valori fissi di guadagno del rosso e del blu per ambienti esterni.
  - **Indoor:** Imposta dei valori fissi di guadagno del rosso e del blu per ambienti interni.
  - **ATW:** Abilita l'Auto Tracing White Balance.
2. **Valore Rosso:** Imposta il valore del guadagno del rosso.

BILANCIAMENTO BIANCO		
-----		
1 >MODO	:	MANUALE
2 ROSSO VAL.	:	0
3 BLU VAL.	:	0

Fig. 57

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.

### 8.1.9.13 Menù Configurazioni Avanzate (Altro)

1. **Nitidezza:** Imposta il valore della nitidezza dell'immagine.
2. **Alta Risoluzione:** Abilita la funzione Alta Risoluzione. Il segnale video in uscita ha una risoluzione più elevata.
3. **Wide Dynamic:** Abilita la funzione Wide Dynamic. Migliora la visione quando l'area inquadrata ha zone molto più luminose di altre.
4. **Stabilizzatore:** Abilita la funzione di stabilizzazione elettronica dell'immagine.
5. **Scansione Progressiva:** Abilita la funzione di Scansione Progressiva. Permette di ottenere un'immagine più stabile quando il brandeggio è collegato ad un video server.
6. **Riduzione Rumore:** Imposta il livello di riduzione del rumore. Variando il parametro in base alle condizioni ambientali è possibile ottenere un'immagine più contrastata.

ALTRO		
-----		
1 NITIDEZZA	:	6
2 ALTA RISOLUZIONE:	:	N
3 WIDE DYNAMIC	:	OFF
4 STABILIZZATORE	:	N
5 SCANSIONE PROGR.:	:	N
6 RIDUZIONE RUMORE:	:	2

Fig. 58

## 8.1.10 Menù Movimento

1. **Configurazione:** Imposta una delle configurazioni predefinite del brandeggio.
  - **Standard:** Imposta le velocità standard di movimento.
2. **Offset Pan:** Il brandeggio ha una posizione di 0° definita meccanicamente. La funzione Offset Pan permette di definire via software una diversa posizione di 0°.
3. **Controllo Manuale:** Accedere ai sottomenù che gestiscono i parametri associati ai movimenti manuali del dispositivo.
4. **Preset:** Permette di accedere ai sottomenù che consentono di modificare i valori dei Preset.
5. **Patrol:** Permette di accedere ai sottomenù che consentono di modificare i valori del Patrol.
6. **Autopan:** Permette di accedere ai sottomenù che consentono di modificare i valori dell'Autopan.
7. **Richiamo Movimenti:** Permette di accedere al sottomenù che gestisce il richiamo automatico dei movimenti.
8. **Avanzate:** Permette di entrare nel sottomenù per l'impostazione dei parametri avanzati.

```

MOVIMENTO
-----
1>CONFIG.      : STANDARD
2 OFFSET PAN:  + 0.00
3 CONTROLLO MANUALE  >
4 PRESET                >
5 PATROL                >
6 AUTOPAN              >
7 RICHIAMO MOVIMENTI  >
8 AVANZATE             >
    
```

Fig. 59

## 8.1.10.1 Menù Controllo Manuale

1. **Velocità Massima:** Imposta la velocità manuale massima.
2. **Modalità Fast:** Attiva la modalità Fast. Questa opzione, se attiva, permette di muovere velocemente il brandeggio spostando il joystick a fine corsa.
3. **Velocità Con Zoom:** Abilita l'opzione Velocità con Zoom. Tale parametro, se abilitato, riduce automaticamente la velocità di Pan e Tilt in funzione del fattore di Zoom.
4. **Fattore Tilt:** Imposta il fattore di riduzione della velocità manuale dell'asse tilt.
5. **Autoflip:** Abilita la funzione autoflip (ovvero ruota automaticamente il brandeggio di 180° quando il tilt arriva a finecorsa) per facilitare l'inseguimento di soggetti lungo corridoi o strade.
6. **Limiti Movimento:** Accede al menù Limiti.

```

CONTROLLO MANUALE
-----
1>VEL. MASSIMA      :100.0
2 MODALITA' FAST   :    S
3 VEL. CON ZOOM    :    N
4 FATTORE TILT     :    2
5 AUTOFLIP        :    S
6 LIMITI MOVIMENTO >
    
```

Fig. 60

### 8.1.10.2 Menù Controllo Manuale (Limiti)

Permette di configurare i seguenti parametri:

1. **Limiti Pan:** Abilita i limiti del Pan.
2. **Pan Inizio:** Imposta il limite iniziale del Pan.
3. **Pan Fine:** Imposta il limite finale del Pan.
4. **Limiti Tilt:** Abilita i limiti del Tilt.
5. **Tilt Inizio:** Imposta il limite iniziale del Tilt.
6. **Tilt Fine:** Imposta il limite finale del Tilt.

#### LIMITI

```

-----
1>LIMITI PAN      :      N
2 PAN INIZIO     : +  0.00
3 PAN FINE       : +  0.00
4 LIMITI TILT    :      N
5 TILT INIZIO    : +  0.00
6 TILT FINE      : +  0.00
  
```

Fig. 61

### 8.1.10.3 Menù Preset

1. **Modifica Preset:** Per accedere al menù Modifica Preset.
2. **Utilità Preset:** Per accedere al menù Utilità Preset.

#### PRESET

```

-----
1>MODIFICA PRESET  >
2 UTILITA' PRESET  >
  
```

Fig. 62

### 8.1.10.4 Menù Preset (Modifica Preset)

Permette di configurare i seguenti parametri:

1. **Numero:** Il numero del Preset che si desidera modificare.
2. **Abilitazione:** L'abilitazione del preset.
3. **Pan:** Posizione di pan espressa in gradi.
4. **Tilt:** Posizione del tilt espressa in gradi.
5. **Zoom:** La posizione dello Zoom.
6. **Focus:** La posizione del focus diurno e notturno.
7. **Velocità:** La velocità di raggiungimento della posizione quando il preset viene richiamato dalla funzione Patrol e Scan.
8. **Pausa:** Imposta l'attesa in secondi prima di iniziare il successivo movimento in Patrol.
9. **Testo:** La scritta visualizzata quando si raggiunge la posizione di preset.

#### MODIFICA PRESET

```

-----
1>NR.      :      1
2 ON       :      N
3 PAN      :+  0.00
4 TILT     :+  0.00
5 ZOOM     :      0
6 FOCUS    :  4096 - 5600
7 VEL.     :  100.0
8 PAUSA    :      1
9 TESTO    : Text 001
  
```

Fig. 63

Dal menù è possibile memorizzare direttamente i preset inviando il comando Iris Close che abilita i movimenti del brandeggio.



### 8.1.10.5 Menù Preset (Utilità Preset)

Permette di configurare i seguenti parametri:

1. **A.Focus Giorno:** Abilita l'utilizzo dell'autofocus durante il richiamo dei preset in modalità giorno. Per garantire rapidità e accuratezza nella messa a fuoco dell'immagine disabilitare la messa a fuoco automatica.
2. **A.Focus Notte:** Abilita l'utilizzo dell'autofocus durante il richiamo dei preset in modalità notte. Si consiglia di abilitare la messa a fuoco automatica quando il brandeggio è provvisto di faro infrarosso in quanto il punto focale varia tra luce visibile e luce infrarosso.
3. **Velocità Scan:** È la velocità che sarà usata come riferimento quando si richiederà una nuova posizione di preset con la funzione Scan.
4. **Velocità Default:** Modifica la velocità di default dei Preset. Tale valore viene utilizzato dalla funzione Imponi Vel.? per assegnare a tutti i Preset la stessa velocità.
5. **Pausa Default:** Modifica la pausa di default dei Preset. Tale valore viene utilizzato dalla funzione Imponi Pausa? per assegnare a tutti i Preset la stessa pausa.
6. **Imponi Velocità:** Assegna a tutti i Preset la velocità di default.
7. **Imponi Pausa:** Assegna a tutti i Preset la pausa di default.

```

UTILITA' PRESET
-----
1>A.FOCUS GIORNO :      N
2 A.FOCUS NOTTE  :      S
3 VELOCITA' SCAN : 200.0
4 VEL. DEFAULT   : 100.0
5 PAUSA DEFAULT  :      3
6 IMPONI VEL.?   :
7 IMPONI PAUSA?  :
    
```

Fig. 64

### 8.1.10.6 Menù Patrol

1. **Primo Preset:** Primo preset della sequenza di Patrol.
2. **Ultimo Preset:** L'ultimo preset della sequenza di Patrol.
3. **Modo Random:** Abilita l'esecuzione in modo casuale. La sequenza viene ricalcolata continuamente.

```

PATROL
-----
1>PRIMO PRESET   :      1
2 ULTIMO PRESET  :    250
3 MODO RANDOM    :      N
    
```

Fig. 65

### 8.1.10.7 Menù Autopan

1. **Preset Andata:** Imposta la posizione iniziale dell'Autopan.
2. **Preset Ritorno:** Imposta la posizione finale dell'Autopan.
3. **Velocità Andata:** Imposta la velocità d'andata dell'Autopan.
4. **Velocità Ritorno:** Imposta la velocità di ritorno dell'Autopan.

```

AUTOPAN
-----
1>PRESET ANDATA :      1
2 PRESET RITORNO:      2
3 VEL. ANDATA   : 20.0
4 VEL. RITORNO  :100.0
    
```

Fig. 66

### 8.1.10.8 Menù Richiamo Movimenti

È possibile configurare l'unità in modo che, dopo un certo periodo di inattività, esegua automaticamente una funzione di movimento scelta dall'operatore.

1. **Tipo Movimento:** Tipo di movimento da richiamare (None, Home, Autopan, Patrol, Tour 1, Tour 2, Tour 3).
2. **Ritardo Movimento:** Tempo di inattività del Joystick, espresso in secondi.

RICHIAMO MOVIMENTI	
-----	
1>TIPO MOVIMENTO:	NONE
2 RIT. MOVIMENTO:	60

Fig. 67

### 8.1.10.9 Menù Avanzate

1. **Controllo Statico:** Abilita il controllo della posizione solo quando il brandeggio è fermo.
2. **Controllo Dinamico:** Abilita il controllo della posizione solo quando il brandeggio è in movimento.
3. **Homing Ciclico:** Se diverso da zero, impone l'esecuzione di una nuova procedura di homing dopo il numero di ore specificato.
4. **Modo Economico:** Riduce la coppia dei motori quando il brandeggio è fermo. Non abilitare in presenza di forte vento o vibrazioni intense.

AVANZATE	
-----	
1>CONTROLLO STATICO :	S
2 CONTROLLO DINAMICO:	S
3 HOMING CICLICO :	0
4 MODO ECONOMICO :	S

Fig. 68

## 8.1.11 Menù Visualizzazioni

1. **Posizione PTZ:** Se posto diverso da OFF, permette di selezionare la modalità con la quale vengono visualizzate sullo schermo le posizioni di Pan, Tilt e Zoom. È possibile scegliere una visualizzazione a tempo (1 S, 3 S e 5 S) oppure costante (CONST).
2. **Nome Preset:** Se posto diverso da OFF, permette di selezionare la modalità con la quale viene visualizzato sullo schermo il testo associato all'ultima posizione di Preset raggiunta. È possibile scegliere una visualizzazione a tempo (1 S, 3 S e 5 S) oppure costante (CONST).
3. **Nome Aree:** Se posto diverso da OFF, permette di selezionare la modalità con la quale vengono visualizzati i testi associati alle aree attive. È possibile scegliere una visualizzazione a tempo (1 S, 3 S e 5 S) oppure costante (CONST).
4. **ID Brandeggio:** Se posto diverso da OFF, visualizza l'ID del brandeggio.
5. **Comandi Ricevuti:** Se posto diverso da OFF, permette di selezionare la modalità con la quale vengono visualizzati i comandi seriali ricevuti. È possibile scegliere una visualizzazione a tempo (1 S, 3 S e 5 S) oppure costante (CONST).
6. **Delta Orizzontale:** Muove orizzontalmente i testi dei menù consentendo un centraggio migliore degli stessi.

7. **Delta Verticale:** Muove verticalmente i testi dei menù consentendo un centraggio migliore degli stessi.

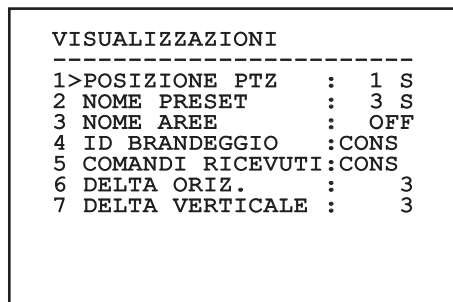


Fig. 69

## 8.1.12 Menù Opzioni

1. **Montaggio A Soffitto:** Abilitando questa modalità si ha il capovolgimento dell'immagine e dei comandi di direzione.
2. **Allarmi:** Permette di accedere al menù Allarmi.
3. **Impianto Di Lavaggio:** Permette di accedere al menù Impianto di Lavaggio.

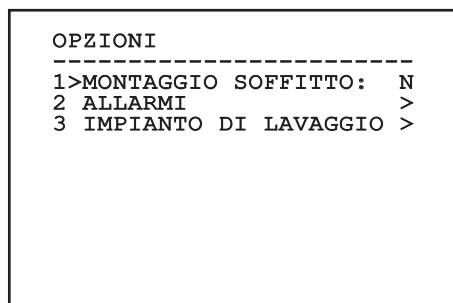


Fig. 70

### 8.1.12.1 Menù Allarmi

- 1-5. **Allarme 1-5:** Permettono di accedere ai menù in cui è possibile impostare i parametri degli Allarmi da 1 a 5.
6. **Stato Allarmi:** Permette di accedere al menù Stato Allarmi.

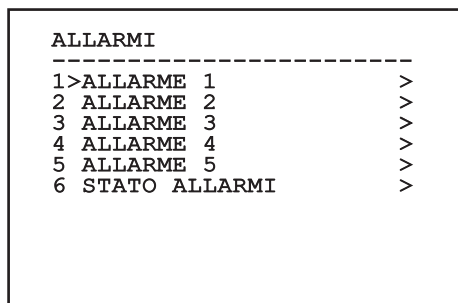


Fig. 71

**i** Se è montato il faro IR l'allarme 5 è riservato all'interruttore crepuscolare esterno, per cui l'allarme 5 non compare a video.

Dal menù Allarmi è possibile accedere ad uno dei menù (Allarme 1-5) dove modificare i parametri degli allarmi.

Da questi menu è possibile impostare i seguenti valori:

1. **Tipo:** Imposta il tipo di contatto: normalmente chiuso (N.C.) o normalmente aperto (N.O.)
2. **Azione:** Il tipo di azione che l'unità effettua quando l'allarme si attiva (Autopan, Patrol, Relè 1, Relè 2, Scan, Tour 1, Tour 2, Tour 3, Washer, Wiper). Se si seleziona la voce Off l'allarme è disabilitato.
3. **Numero:** Il preset da raggiungere quando il tipo di azione dell'allarme è Scan.
4. **Testo:** La scritta visualizzata quando l'allarme è attivo.

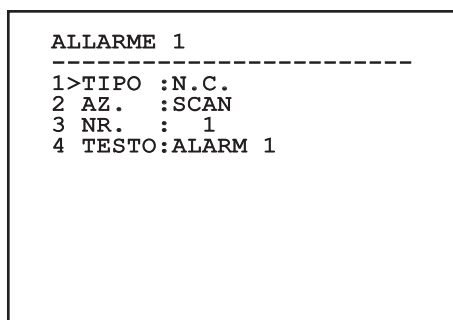


Fig. 72

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.

Dal menù Allarmi è possibile accedere al menù Stato Allarmi in cui viene visualizzato lo stato dell'ingresso degli allarmi (CLOSED contatto chiuso, OPEN contatto aperto).

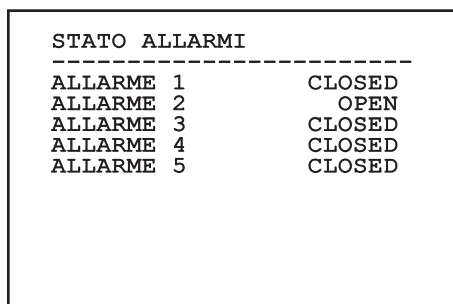


Fig. 73

### 8.1.13 Menù Impianto Di Lavaggio

Il brandeggio offre la possibilità di utilizzare un tergicristallo e di azionare una pompa per la pulizia del vetro.

Per configurare l'impianto di lavaggio posizionare l'obiettivo della telecamera di fronte all'ugello dell'impianto di lavaggio.

Salvare un preset (XY) per questa posizione, che sarà richiamato dal brandeggio quando si attiva la funzione Washer.

Configurare i seguenti parametri:

1. **Abilita:** Abilitazione della funzione Washer.
2. **Preset Ugello:** Inserire il numero del preset (XY) corrispondente all'ugello.
3. **Ritardo Tergi On:** Selezionare l'intervallo di tempo che passa tra l'attivazione della pompa e quella del tergicristallo.
4. **Durata Lavaggio:** Scegliere la durata dello spazzolamento.
5. **Ritardo Tergi Off:** Scegliere la durata dello spazzolamento senza acqua.

```

IMPIANTO DI LAVAGGIO
-----
1>ABILITA           : N
2 PRESET UGELLO    : 1
3 RITARDO TERGI ON : 5
4 DURATA LAVAGGIO : 10
5 RITARDO TERGI OFF : 5
  
```

Fig. 74



L'attivazione della funzione Washer riserva l'utilizzo del Relè 2 per l'accensione della pompa e toglie la possibilità di associare il Relè 2 ad un allarme.

### 8.1.14 Menù Default

1. **Cancella Setup?:** Ripristina tutti i parametri eccetto i preset.
2. **Cancella Preset?:** Elimina tutti i preset precedentemente memorizzati.

```

DEFAULT
-----
1>CANCELLA SETUP?
2 CANCELLA PRESET?
  
```

Fig. 75



Le operazioni sopra descritte comportano la perdita di tutti i dati precedentemente memorizzati (es.: Preset, Patrol, Autopan, Home...).

### 8.1.15 Menù Info

Il menù consente di verificare la configurazione del dispositivo e la versione di firmware installata.

```

INFO
-----
Indirizzo: 1
Protocollo: MACRO
RS485-1: 38400 N81 RX
RS485-2: 38400 N81 RIPET
FW: 0a (Apr 14 2009)
HW: 000-0000
Telecamera: 36x
PC: UC1PSSA000A
SN: 109032220029
  
```

Fig. 76

## 8.1.16 Menù Camera Termica

1. **Controllo:** Imposta il tipo di controllo della camera termica.
  - **Interno:** La configurazione della telecamera viene gestita dal brandeggio.
  - **Esterno:** La configurazione della telecamera viene gestita tramite la seriale RS-485-3 (solo per la versione con doppia telecamera).
2. **Configurazione:** Imposta una delle configurazioni predefinite della camera termica.
  - **Standard:** Imposta la configurazione standard della camera termica.
  - **High Gain:** Imposta la configurazione pensata per una maggiore risoluzione dell'immagine.
  - **Isotherm:** Imposta la configurazione pensata per evidenziare gli oggetti all'interno di un dato range di temperatura (8.1.16.8 Menù Analisi Termica (Isotherma), pagina 47).
  - **Custom:** Segnala che la configurazione della camera termica è stata scelta manualmente dall'utente.
3. **Correzione Flat Field:** Permette di entrare nel sottomenù per la gestione della correzione Flat Field.

4. **Configurazione Video:** Permette di entrare nel sottomenù per la gestione della configurazione del video.
5. **Controllo Guadagno:** Permette di entrare nel sottomenù per la gestione del controllo del guadagno.
6. **Configurazione ROI:** Permette di entrare nel sottomenù per la configurazione del ROI.
7. **Analisi Termica:** Permette di entrare nel sottomenù per la gestione dell'analisi termica.
8. **Status:** Permette di entrare nel sottomenù in cui sono riportate le caratteristiche tecniche della camera termica.

```

CAMERA TERMICA
-----
1>CONTROLLO:    INTERNO
2 CONFIG.     : STANDARD
3 CORREZIONE FLAT FIELD>
4 CONFIGURAZIONE VIDEO >
5 CONTROLLO GUADAGNO  >
6 CONFIGURAZIONE ROI   >
7 ANALISI TERMICA     >
8 STATUS              >
  
```

Fig. 77

### 8.1.16.1 Menù Correzione Flat Field

La camera termica ha un meccanismo interno per migliorare periodicamente la qualità delle immagini: la correzione Flat Field (FFC). I parametri che gestiscono questa funzione sono i seguenti:

1. **Flat Field Auto:** Abilita la correzione Flat Field automatica oppure manuale. Quando la correzione automatica è abilitata, la camera effettua una FFC dopo un dato intervallo di tempo o una data variazione di temperatura. Viceversa quando si utilizza la correzione manuale le operazioni FFC sono eseguite su richiesta dell'utente. Si consiglia di usare sempre la correzione automatica.
2. **Intervallo:** Imposta l'intervallo di tempo dopo cui eseguire una FFC quando il range dinamico di guadagno è High. L'intervallo di tempo è espresso in frames (33ms per l'NTSC, 40ms per il PAL).
3. **Intervallo Low:** Imposta l'intervallo di tempo dopo cui eseguire una FFC quando il range dinamico di guadagno è Low. L'intervallo di tempo è espresso in frames (33ms per l'NTSC, 40ms per il PAL).
4. **Temperatura:** Imposta la variazione di temperatura dopo cui eseguire una FFC quando il range dinamico di guadagno è High. La variazione di temperatura è espressa in intervalli di 0,1 °C.
5. **Temperatura Low:** Imposta l'intervallo di temperatura dopo cui eseguire una FFC quando il range dinamico di guadagno è Low. La variazione di temperatura è espressa in intervalli di 0,1 °C.

6. **Modo Guadagno:** Permette di selezionare il tipo di range dinamico di guadagno:
  - **High:** Questa impostazione è pensata per massimizzare il contrasto ed è particolarmente indicata per applicazioni che effettuano analisi video delle immagini.
  - **Low:** Questa impostazione aumenta il range dinamico dell'immagine e ne diminuisce il contrasto. È particolarmente indicata per identificare gli elementi più caldi dell'immagine.
  - **Auto:** Questa impostazione permette alla camera di commutare tra le modalità High e Low basandosi sul tipo di immagine attualmente visualizzata. I parametri del menù Valori Cambio Guadagno servono per modificare il comportamento di questa modalità (8.1.16.2 Menù Correzione Flat Field (Valori Cambio Guadagno), pagina 44).
7. **Eseguire FFC:** Esegue un'operazione di FFC.
8. **Valori Cambio Guadagno:** Permette di entrare nel sottomenù Valori Cambio Guadagno.

CORREZIONE FLAT FIELD	
-----	
1 >FLAT FIELD AUTO:	S
2 INTERVALLO :	7200
3 INTERVALLO LOW :	1350
4 TEMPERATURA :	5
5 TEMPERATURA LOW:	10
6 MODO GUADAGNO :	ALTO
7 ESEGUIRE FFC?	
8 VALORI CAMBIO GUAD.	>

Fig. 78



**Si consiglia di non cambiare i valori di default in quanto pensati per offrire un'alta qualità delle immagini in tutte le condizioni di funzionamento.**


### 8.1.16.2 Menù Correzione Flat Field (Valori Cambio Guadagno)


Una volta entrati nel menù Valori Cambio Guadagno è possibile impostare uno dei seguenti parametri:

1. **Soglia Alto-Basso:** Imposta la soglia di temperatura usata dal parametro Popolamento Alto-Basso per forzare la commutazione in modalità Basso Guadagno. Il valore è espresso in gradi Celsius.
2. **Popolamento Alto-Basso:** Imposta la percentuale di pixel minima al di sopra della quale avviene la commutazione in modalità Basso Guadagno.
3. **Soglia Basso-Alto:** Imposta la soglia di temperatura usata dal parametro Popolamento Basso-Alto per forzare la commutazione in modalità Alto Guadagno. Il valore è espresso in gradi Celsius.
4. **Popolamento Basso-Alto:** Imposta la percentuale di pixel minima al di sopra della quale avviene la commutazione in modalità Alto Guadagno.

VALORI CAMBIO GUADAGNO	
1>SOGL. ALTO-BASSO:	140
2 POP. ALTO-BASSO :	20
3 SOGL. BASSO-ALTO:	100
4 POP. BASSO-ALTO :	95

Fig. 79

 **Si consiglia di non cambiare i valori di default in quanto pensati per offrire un'alta qualità delle immagini in tutte le condizioni di funzionamento.**

 **Le impostazioni del menù Valori Cambio Guadagno hanno effetto solo se il modo Guadagno è stato impostato su Auto ( 8.1.16.1 Menù Correzione Flat Field, pagina 43).**

### 8.1.16.3 Menù Configurazione Video

Una volta entrati nel menù Configurazione Video è possibile impostare uno dei seguenti parametri:

1. **Polarità Lut:** Imposta il tipo di colorazione dell'immagine inquadrata dalla camera termica.
2. **Avviso FFC:** Imposta la durata della visualizzazione sul video di un quadrato colorato in alto a destra quando sta per essere eseguita una FFC. L'intervallo di tempo è espresso in frames (33ms per l'NTSC, 40ms per il PAL). Un valore inferiore ai 15 frames disabilita automaticamente tale segnalazione.
3. **Zoom Digitale:** Imposta il tipo di zoom da applicare al segnale video (OFF, Auto, 2x, 4x). Se si utilizza la modalità Auto lo zoom della telecamera termica si adatta automaticamente a quello del modulo SONY.
4. **Dynamic DDE:** Imposta il valore del filtro DDE che serve per migliorare la nitidezza dei contorni. I valori tipici da utilizzare variano tra 17 e 25. Il valore 17 disabilita il filtro.
5. **Segnale Test:** Abilita il test pattern per verificare l'elettronica della camera.

CONFIGURAZIONE VIDEO	
1>POLARITA LUT:WHITE	HOT
2 AVVISO FFC :	60
3 ZOOM DIGIT. :	AUTO
4 DYNAMIC DDE :	25
5 SEGNALE TEST:	N

Fig. 80



### 8.1.16.4 Menù Controllo Guadagno

Una volta entrati nel menù Configurazione Controllo Guadagno è possibile impostare uno dei seguenti parametri:

1. **Algoritmo:** Imposta il tipo di controllo automatico del guadagno (AGC) per l'ottimizzazione dell'immagine. È possibile scegliere uno dei seguenti algoritmi:
  - **Automatico:** Imposta automaticamente il contrasto e la luminosità dell'immagine al variare delle condizioni ambientali equalizzando l'istogramma dei livelli di grigio. L'immagine può essere modificata cambiando il valore dei parametri ITT Mean, Max Gain e Plateau Value. Questa è l'algoritmo impostato di default e consigliato per il normale utilizzo della camera termica.
  - **Once Bright:** Il livello di luminosità impostato è la media dei valori di luminosità dell'immagine quando si seleziona questa voce. L'immagine può essere modificata cambiando il valore del parametro Contrasto.
  - **Auto Bright:** Il livello di luminosità impostato è la media dei valori di luminosità dell'immagine. Tale livello viene aggiornato in tempo reale. L'immagine può essere modificata cambiando i valori dei parametri Contrasto e Compensazione.
  - **Manuale:** I livelli di contrasto e luminosità sono impostati manualmente dell'utente.
  - **Istogramma Lineare:** Il contrasto e la luminosità dell'immagine sono ottimizzati usando una funzione di trasferimento lineare. L'immagine può essere modificata cambiando il valore dei parametri ITT Mean, Max Gain.

2. **Valore Di Plateau:** Imposta il valore massimo di pixel che possono essere contenuti in un livello di grigio.
3. **Media ITT:** Imposta il punto medio della scala di grigi.
4. **Guadagno Max:** Imposta il guadagno massimo dell'AGC.
5. **Contrasto:** Imposta il livello di contrasto dell'immagine.
6. **Luminosità:** Imposta il livello di luminosità dell'immagine.
7. **Compensazione:** Imposta il livello di compensazione della luminosità dell'immagine.

CONTROLLO GUADAGNO	
-----	
1>ALGORITMO	AUTO
2 PLATEAU VAL.:	150
3 MEDIA ITT	127
4 GUADAGNO MAX:	8
5 CONTRASTO	32
6 LUMINOSITA	81.92
7 COMPENSAZ .NE:	+ 0

**Fig. 81**

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.

### 8.1.16.5 Menù Configurazione ROI

Una volta entrati nel menù Configurazione ROI è possibile modificare la regione di interesse (ROI) usata dall'algoritmo AGC per calcolare i livelli di contrasto e luminosità dell'immagine.

1. **P1 Sinistra:** Imposta il limite sinistro della ROI.
2. **P1 Alto:** Imposta il limite superiore della ROI.
3. **P2 Destra:** Imposta il limite destro della ROI.
4. **P2 Basso:** Imposta il limite inferiore della ROI.

CONFIGURAZIONE ROI			
-----			
1>	P1 SINISTRA	:	- 160
2	P1 ALTO	:	- 128
3	P2 DESTRA	:	+ 160
4	P2 BASSO	:	+ 128

Fig. 82

### 8.1.16.6 Menù Analisi Termica

1. **Punto Di Misura:** Permette di entrare nel sottomenù per la configurazione del punto di misura.
2. **Isoterma:** Permette di entrare nel sottomenù per la gestione dell'isoterma.

ANALISI TERMICA	
-----	
1>	PUNTO DI MISURA >
2	ISOTERMA >

Fig. 83

### 8.1.16.7 Menù Analisi Termica (Punto di Misura)

Una volta entrati nel menù Punto di Misura è possibile impostare uno dei seguenti parametri:

1. **Modo:** Abilita la visualizzazione della temperatura misurata dai 4 pixels al centro dell'immagine (in gradi Celsius oppure Fahrenheit). L'opzione OFF disabilita la visualizzazione.
2. **Digitale:** Abilita la visualizzazione del relativo simbolo sul display.
3. **Termometro:** Abilita la visualizzazione del relativo simbolo sul display.

PUNTO DI MISURA		
-----		
1>	MODO	: OFF
2	DIGITALE	: N
3	TERMOMETRO	: N

Fig. 84

### 8.1.16.8 Menù Analisi Termica (Isoterma)

Una volta entrati nel menù Isoterma è possibile attivare una speciale colorazione per oggetti compresi nell'intervallo di temperatura impostato. I parametri che gestiscono questa funzione sono i seguenti:

1. **Abilita:** Abilita la funzione Isoterma.
2. **Modo:** Seleziona la modalità in cui è espresso l'intervallo (in Percentuale oppure in gradi Celsius).
3. **Superiore:** Imposta il limite superiore della funzione Isoterma.
4. **Inferiore:** Imposta il limite inferiore della funzione Isoterma.

ISOTERMA			
-----			
1	>ABILITA	:	N
2	MODO	:	PERCENT
3	SUPERIORE	:	95
4	INFERIORE	:	90

Fig. 85

Il menù si autoconfigura dinamicamente in funzione della scelta effettuata mostrando i parametri sui quali si può agire.

### 8.1.16.9 Menù Stato

Una volta entrati nel menù Status è possibile conoscere le caratteristiche tecniche della telecamera termica.

STATO	
-----	
VERSIONE SW :	0A00.022
VERSIONE FW :	0802.0040
CAMERA S.N. :	00001234
SENSORE S.N. :	00001234
TEMPERATURA :	+0034.0
P.N.	41320035A-SPXXX

Fig. 86

## 9 Accessori



Per ulteriori dettagli sulla configurazione e l'utilizzo fare riferimento al manuale del relativo accessorio.

### 9.1 Impianto di lavaggio

Il brandeggio può essere dotato di una pompa esterna che fornisce acqua per la pulizia del vetro.

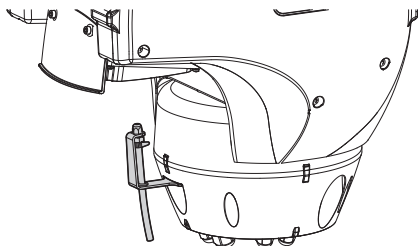


Fig. 87

### 9.2 Supporto da parete

Supporto per montaggio a parete con passaggio interno cavi.

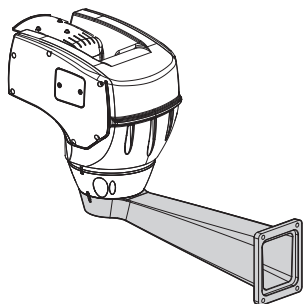


Fig. 88

### 9.3 Supporto da parapetto

Supporto per montaggio a parapetto con passaggio interno cavi.

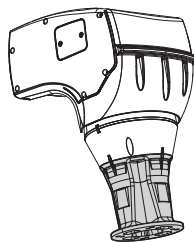


Fig. 89

### 9.4 Fissaggio a soffitto



Sostituire le rondelle dentellate ogni qualvolta si rimuova il corpo dalla base.

L'unità può essere installata capovolta grazie al supporto per il montaggio a soffitto.

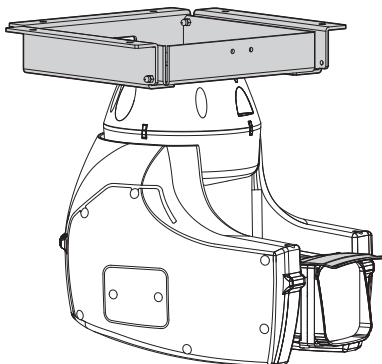


Fig. 90

# 10 Istruzioni di funzionamento ordinario

**⚠ Inquadrare direttamente e per un periodo prolungato il sole può causare danni irreparabili al sensore della telecamera termica.**

## 10.1 Visualizzazione dello stato del brandeggio

Durante il normale funzionamento, a scelta dell'utente, il brandeggio visualizza a monitor i dati organizzati come illustrato. La visualizzazione può essere abilitata o disabilitata (8.1.11 Menù Visualizzazioni, pagina 39).

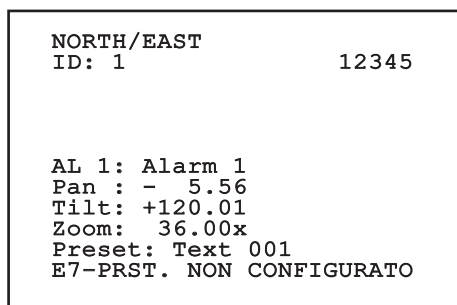


Fig. 91

**NORTH/EAST:** Nome dell'area nella quale ci si trova.

**ID: 1:** L'indirizzo del ricevitore.

**12345:** La lista completa degli allarmi attivi.

**AL 1:** Alarm 1: Il testo dell'ultimo allarme attivo.

**Pan:** - 5.56/Tilt: +120.01/Zoom: 36.00x: La posizione attuale di Pan, Tilt e Zoom.

**Preset:** Text 001: Il nome del preset selezionato attivo.

**E7-PRST. NON CONFIGURATO:** Il seguente campo visualizza gli errori riscontrati durante il funzionamento del sistema o i comandi ricevuti via seriale (solo per i comandi ricevuti la visualizzazione può essere abilitata o disabilitata).

## 10.2 Salvataggio di un Preset

### 10.2.1 Salvataggio veloce

Tramite la tastiera di controllo è possibile salvare la posizione attuale. Per ulteriori informazioni fare riferimento al manuale della tastiera utilizzata.

Durante la fase di salvataggio è possibile modificare la velocità di raggiungimento del Preset con i tasti Focus Far/Focus Near e il tempo di attesa con i tasti Iris Open/Iris Close.

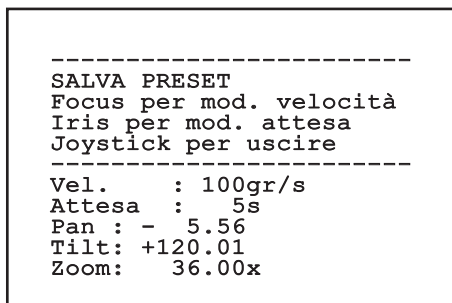


Fig. 92

### 10.2.2 Salvataggio da Menù

Fare riferimento a 8.1.10.3 Menù Preset, pagina 36.

## 10.3 Richiamo di una posizione di Preset (Scan)

Tramite il dispositivo di controllo è possibile richiamare una posizione di Preset precedentemente salvata (per ulteriori informazioni fare riferimento al manuale del dispositivo utilizzato).

## 10.4 Attivazione del Patrol

Per attivare/disattivare la funzione fare riferimento al manuale del dispositivo di controllo utilizzato o al relativo capitolo (10.13 Comandi speciali, pagina 52).

Per disattivare la funzione muovere il joystick o richiamare un tipo di movimento diverso.

Per la configurazione di questa funzione fare riferimento al relativo capitolo (8.1.10.6 Menù Patrol, pagina 37).

## 10.5 Attivazione dell'Autopan

La funzione Autopan richiama in modo continuo i 2 preset memorizzati.

Per attivare/disattivare la funzione fare riferimento al manuale del dispositivo di controllo utilizzato o al relativo capitolo (10.13 Comandi speciali, pagina 52).

Per disattivare la funzione muovere il joystick o richiamare un tipo di movimento diverso.

Per la configurazione di questa funzione fare riferimento al relativo capitolo (8.1.10.7 Menù Autopan, pagina 37).

## 10.6 Richiamo di un percorso (Tour)

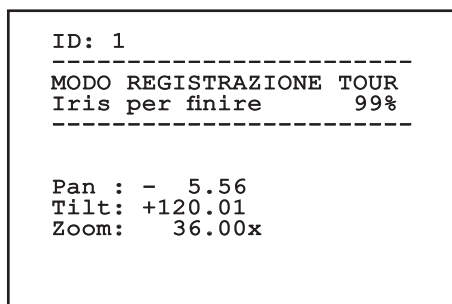
La modalità di funzionamento Tour permette di ripetere un percorso precedentemente registrato in modo continuo.

Il brandeggio può memorizzare fino a 3 Tour di durata massima pari a 2 minuti ciascuno.

Per memorizzare un Tour digitare sulla tastiera il preset speciale relativo al numero del Tour da salvare (10.13 Comandi speciali, pagina 52).

Per facilitare la registrazione del Tour, il brandeggio limita in automatico la velocità di Pan e Tilt in funzione del fattore di Zoom.

Durante la registrazione del Tour viene visualizzata la percentuale del tempo di registrazione rimanente come indicato in figura.



**Fig. 93**


Per interrompere la registrazione premere il tasto Iris Open o Iris Close.

Per avviare la riproduzione di un Tour digitare sulla tastiera il preset speciale relativo al numero del Tour da visualizzare (10.13 Comandi speciali, pagina 52).


## 10.7 Richiamo della posizione di Home

Tramite il dispositivo di controllo è possibile richiamare la posizione di Home (Scan n.1) precedentemente salvata (per ulteriori informazioni fare riferimento al manuale del dispositivo di controllo utilizzato).

## 10.8 Attivazione del tergicristallo (Wiper)

 **Non utilizzare il tergicristallo quando la temperatura esterna è inferiore a 0°C o in presenza di ghiaccio.**

Per attivare/disattivare la funzione fare riferimento al manuale del dispositivo di controllo utilizzato o al relativo capitolo (10.13 Comandi speciali, pagina 52).

 **Il tergicristallo si disattiva in modo automatico se lasciato acceso.**

## 10.9 Attivazione dell'impianto di lavaggio (Washer)

Quando si invia il comando il brandeggio si posiziona con la finestra di fronte all'ugello. Si attivano la pompa ed il tergicristallo per un tempo determinato. Alla fine della procedura il brandeggio ritorna nella posizione iniziale.

Per attivare/disattivare la funzione fare riferimento al manuale del dispositivo di controllo utilizzato o al relativo capitolo (10.13 Comandi speciali, pagina 52).


I modelli con impianto di lavaggio provvisto di sensore di livello visualizzano un messaggio a video quando il liquido nel serbatoio è insufficiente.

## 10.10 Reboot dell'unità

Per ulteriori informazioni fare riferimento al relativo capitolo (10.13 Comandi speciali, pagina 52).

## 10.11 Correzione manuale della messa a fuoco di un preset

Richiamare il preset del quale si intende modificare la messa a fuoco con il comando Scan. Modificare la messa a fuoco con gli appositi tasti Focus Far/Focus Near senza modificare la posizione di Pan/Tilt/Zoom. Salvare il preset con l'apposito comando Preset.

 **La correzione manuale del Preset ha effetto solo se i campi Autofocus Giorno/Notte sono disabilitati (8.1.10.5 Menù Preset (Utilità Preset), pagina 37).**

## 10.12 Commutazione dell'uscita video secondaria

Per selezionare il segnale video (modulo integrato o telecamera termica) fare riferimento ai comandi Video 2 modulo integrato e Video 2 camera termica (10.13 Comandi speciali, pagina 52).

## 10.13 Comandi speciali

<b>COMANDI SPECIALI</b>					
<b>Comando</b>	<b>Protocollo</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Tour 1 Start registrazione	Salvare Preset 77	Salvare Preset 77	Salvare Preset 77	Salvare Preset 77	Salvare Preset 77
		Inizio memorizzazione del pattern 3		Salvare Preset 47	Salvare Pattern 2
Tour 2 Start registrazione	Salvare Preset 78	Salvare Preset 78	Salvare Preset 78	Salvare Preset 78	Salvare Preset 78
				Salvare Preset 48	Salvare Pattern 3
Tour 3 Start registrazione	Salvare Preset 79	Salvare Preset 79	Salvare Preset 79	Salvare Preset 79	Salvare Preset 79
				Salvare Preset 50	Salvare Pattern 4
Tour 1 Start	Salvare Preset 80	Salvare Preset 80	Salvare Preset 80	Salvare Preset 80	Salvare Preset 80
		Attiva pattern 3		Salvare Preset 51	Pattern 2
Tour 2 Start	Salvare Preset 81	Salvare Preset 81	Salvare Preset 81	Salvare Preset 81	Salvare Preset 81
				Salvare Preset 52	Pattern 3
Tour 3 Start	Salvare Preset 82	Salvare Preset 82	Salvare Preset 82	Salvare Preset 82	Salvare Preset 82
				Salvare Preset 53	Pattern 4
Tour Record Stop	Iris Open/Close	Iris Open/Close	Iris Open/Close	Iris Open/Close	IrisOpen/Close
		Salvataggio nuovo pattern			Ack




<b>COMANDI SPECIALI</b>					
<b>Comando</b>	<b>Protocollo</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Wiper Start	Salvare Preset 85	Salvare Preset 85	Salvare Preset 85	Salvare Preset 85	Salvare Preset 85
	Aux 3 ON	Aux 3 ON	Aux 3 ON	Salvare Preset 54	Aux 3 ON
	Wip+				
Wiper Stop	Salvare Preset 86	Salvare Preset 86	Salvare Preset 86	Salvare Preset 86	Salvare Preset 86
	Aux 3 OFF	Aux 3 OFF	Aux 3 OFF	Salvare Preset 55	Aux 3 OFF
	Wip-				
Washer	Salvare Preset 87	Salvare Preset 87	Salvare Preset 87	Salvare Preset 87	Salvare Preset 87
	Aux 4 ON	Aux 4 ON	Aux 4 ON	Salvare Preset 56	Aux 4 ON
	Was+				
Modalità Notturna On	Salvare Preset 88	Salvare Preset 88	Salvare Preset 88	Salvare Preset 88	Salvare Preset 88
				Salvare Preset 57	
Modalità Notturna Off	Salvare Preset 89	Salvare Preset 89	Salvare Preset 89	Salvare Preset 89	Salvare Preset 89
				Salvare Preset 58	
Reboot dispositivo	Salvare Preset 94	Salvare Preset 94	Salvare Preset 94	Salvare Preset 94	Salvare Preset 94
	Ini+	Faster+ Zoom out+ Focus far+ Iris open		Salvare Preset 61	
Attivazione OSM	Salvare Preset 95	Salvare Preset 95	Salvare Preset 95	Salvare Preset 95	Salvare Preset 95
	Men+	Iris open+ Focus+ Zoom out		Salvare Preset 46	

<b>COMANDI SPECIALI</b>					
<b>Comando</b>	<b>Protocollo</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Patrol Start	Salvare Preset 93	Salvare Preset 93	Salvare Preset 93	Salvare Preset 93	Salvare Preset 93
	Pat+	Attiva pattern 1	Attiva patrol	Salvare Preset 60	Pattern
Patrol Stop	Salvare Preset 92	Salvare Preset 92	Salvare Preset 92	Salvare Preset 92	Salvare Preset 92
	Joystick	Joystick	Joystick	Joystick	Joystick
	Pat-			Salvare Preset 59	
Autopan Start	Salvare Preset 99	Salvare Preset 99	Salvare Preset 99	Salvare Preset 99	Salvare Preset 99
	Apa+	Attiva pattern 2	Attiva autopan	Salvare Preset 63	Pattern 1
Autopan Stop	Salvare Preset 96	Salvare Preset 96	Salvare Preset 96	Salvare Preset 96	Salvare Preset 96
	Joystick	Joystick	Joystick	Joystick	Joystick
	Apa-			Salvare Preset 62	
Esegui FFC	Salvare Preset 74	Salvare Preset 74	Salvare Preset 74	Salvare Preset 74	Salvare Preset 74
				Salvare Preset 43	
Video 2 camera termica	Salvare Preset 75	Salvare Preset 75	Salvare Preset 75	Salvare Preset 75	Salvare Preset 75
				Salvare Preset 44	
Video 2 modulo integrato	Salvare Preset 76	Salvare Preset 76	Salvare Preset 76	Salvare Preset 76	Salvare Preset 76
				Salvare Preset 45	

Tab. 12

# 11 Manutenzione

 **La manutenzione deve essere eseguita solo da personale qualificato ad intervenire su circuiti elettrici.**


## 11.1 Clone configurazione

In caso di necessità è possibile effettuare un backup della configurazione del brandeggio.

Per ulteriori informazioni contattare il centro di assistenza VIDEOTEC.

L'operazione di backup o ripristino può essere effettuata in loco con l'apposito cavo fornito in dotazione al brandeggio. L'operazione può inoltre essere effettuata da remoto (solo protocolli VIDEOTEC MACRO e PELCO D) con convertitore USB/Seriale 485 (non fornito in dotazione).

## 11.2 Sostituzione dei fusibili

 **ATTENZIONE! Per assicurare la protezione contro il rischio di incendio, sostituire i fusibili con lo stesso tipo e valore. I fusibili devono essere sostituiti solo da personale qualificato.**

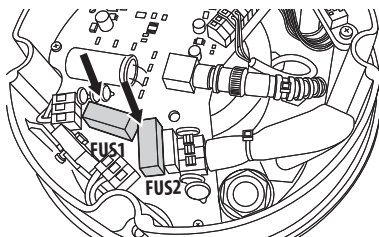


Fig. 94

I fusibili utilizzati sono descritti di seguito.


SOSTITUZIONE DEI FUSIBILI		
Tensione	Fusibile F1	Fusibile F2
24Vac, 50/60Hz	T 4A L 250V 5x20	T 6.3A H 250V 5x20
120Vac, 50/60Hz	T 4A L 250V 5x20	T 4A H 250V 5x20
230Vac, 50/60Hz	T 4A L 250V 5x20	T 2A H 250V 5x20

Tab. 13

Utilizzare in alternativa dei fusibili omologati di pari caratteristiche.

# 12 Pulizia

## 12.1 Pulizia del vetro e delle parti in plastica

 **Evitare alcool etilico, solventi, idrocarburi idrogenati, acidi forti e alcali. L'utilizzo di detti prodotti danneggia in modo irreparabile la superficie trattata.**

Si consiglia di utilizzare un panno morbido con saponi neutri diluiti con acqua o prodotti specifici per la pulizia delle lenti degli occhiali.

## 13 Smaltimento dei rifiuti



**Questo simbolo e il sistema di riciclaggio sono validi solo nei paesi dell'EU e non trovano applicazione in altri paesi del mondo.**

Il vostro prodotto è costruito con materiali e componenti di alta qualità, che sono riutilizzabili o riciclabili.

Prodotti elettrici ed elettronici che riportano questo simbolo, alla fine dell'uso, devono essere smaltiti separatamente dai rifiuti casalinghi.

Vi preghiamo di smaltire questo apparecchio in un Centro di raccolta o in un'Ecostazione.

Nell'Unione Europea esistono sistemi di raccolta differenziata per prodotti elettrici ed elettronici.

## 14 Risoluzione dei problemi

Richiedere l'intervento di personale qualificato quando:

- L'unità si è danneggiata a seguito di una caduta;
- Le prestazioni dell'unità hanno avuto un evidente peggioramento;
- L'unità non funziona correttamente anche se sono state seguite tutte le indicazioni riportate nel presente manuale.

PROBLEMA	<b>Il prodotto non si accende.</b>
CAUSA	<i>Errato cablaggio, rottura dei fusibili.</i>
SOLUZIONE	Verificare la corretta esecuzione delle connessioni. Verificare la continuità dei fusibili e, in caso di guasto, sostituirli con i modelli indicati.
PROBLEMA	<b>Le posizioni di preset memorizzate non corrispondono all'area ripresa.</b>
CAUSA	<i>Perdita del riferimento di posizione assoluto.</i>

**Durante l'accensione il brandeggio rimane bloccato visualizzando una schermata del tipo:**

Indirizzo : 1

PROCEDURA DI DE-ICE  
IN CORSO...

MINUTI RIMANENTI: 59

*La temperatura ambiente è troppo bassa.*

Attendere il termine della procedura di preriscaldamento. Se la temperatura ambiente è troppo bassa l'unità rimane bloccata visualizzando la seguente schermata:

Indirizzo : 1

PROCEDURA DI DE-ICE

-----  
SISTEMA BLOCCATO  
TEMPERATURA TROPPO BASSA  
-----

**Errore E1-AUTOPAN SENZA LIMITI.**

*I due preset utilizzati come limiti non sono stati programmati.*

Programmare i due preset e poi aggiornare il menu di configurazione dell'autopan (10.2 Salvataggio di un Preset, pagina 49 e 8.1.10.7 Menù Autopan, pagina 37).

---

PROBLEMA	<b>Errore E2-TERGICRIST. BLOCCATO.</b>
CAUSA	<i>Tergicristallo bloccato o rotto.</i>
SOLUZIONE	Verificare che il tergenicristallo sia libero di muoversi.

---

PROBLEMA	<b>Errore E3-PATROL SENZA PRESET oppure errore E4-PATROL SOLO 1 PRESET.</b>
CAUSA	<i>I preset non sono stati programmati.</i>
SOLUZIONE	Programmare due o più preset e poi aggiornare il menu di configurazione patrol (10.2 Salvataggio di un Preset, pagina 49 e 8.1.10.6 Menù Patrol, pagina 37).

---

PROBLEMA	<b>Errore E5-IR TEMP. TROPPO ALTA oppure errore E6-IR GUASTO.</b>
CAUSA	<i>Errato funzionamento del faro infrarosso.</i>
SOLUZIONE	Salvare il preset con l'apposito comando (10.2 Salvataggio di un Preset, pagina 49).

---

PROBLEMA	<b>Errore E7-PRST. NON CONFIGURATO.</b>
CAUSA	<i>Richiamo di un preset non programmato.</i>
SOLUZIONE	Contattare il centro di assistenza autorizzato.

---

PROBLEMA	<b>Errore E8-TOUR NON CONFIGURATO.</b>
CAUSA	<i>Richiamo di un Tour non programmato.</i>
SOLUZIONE	Salvare il Tour con l'apposito comando (10.6 Richiamo di un percorso (Tour), pagina 50).

---

PROBLEMA	<b>Errore E9-TEMP. TROPPO BASSA.</b>
CAUSA	<i>La temperatura ambiente è troppo bassa.</i>
SOLUZIONE	I movimenti del brandeggio vengono bloccati per evitare danni meccanici.

---

PROBLEMA	<b>Allarme AL6 :LIV. ACQUA BASSO.</b>
CAUSA	<i>Livello liquido lavavetro basso.</i>
SOLUZIONE	Riempire il serbatoio della pompa con l'apposito liquido lavavetro.

---

## 15 Dati tecnici

**⚠ ATTENZIONE! L'installazione è di tipo TNV-1. Non collegare a circuiti SELV.**

**⚠ ATTENZIONE! Per ridurre il rischio di incendio usare solamente cavi certificati UL Listed o CSA aventi dimensioni maggiori o uguali a 0.13mm<sup>2</sup> (26 AWG).**

### 15.1 Generale

Costruzione in pressofusione di alluminio e tecnopolimero

Verniciatura a polveri di epossipoliestere, colore RAL9002

Finestra con vetro al Germanio per telecamera termica

Installazione semplice grazie al connettore auto centrante

Assenza di gioco meccanico

Configurazione veloce

Sistema dinamico di controllo della posizione

Stringa di 16 caratteri per titolazione dell'area e dei preset

Funzioni: Autopan, Preset, Patrol, Tour (massimo 3), Autoflip

### 15.2 Meccanica

Pressacavi: 2xM16, 2xM12

Rotazione orizzontale: continua

Rotazione verticale: da -90° a +90°

Velocità orizzontale (variabile): da 0.1° fino a 200°/s

Velocità verticale (variabile): da 0.1° fino a 200°/s

Accuratezza del richiamo posizioni preset: 0.05°

Peso unitario: 12.5kg

### 15.3 Elettrico

Tensione di alimentazione/Corrente assorbita:

- 230Vac, 0.4A, 50/60Hz
- 24Vac, 4A, 50/60Hz
- 120Vac, 0.8A, 50/60Hz

Potenza assorbita

- 40W: brandeggio fermo, riscaldamento spento
- 60W: brandeggio in movimento, riscaldamento spento
- 125W: picco all'accensione, riscaldamento acceso

Dimensione cavi d'ingresso: AWG 16-AWG 19

Dimensione cavi di segnale: AWG 16-AWG 30

Linea video: cavo coassiale (1Vpp, 75Ohm)

Scheda allarme I/O

- Ingressi allarme: 6
- Uscite relè: 2 (2A, 30Vac/60Vdc max)

### 15.4 Comunicazioni

Configurabile da OSD

Interfaccia seriale RS485 half duplex, RS422 full duplex e configurazione in cascata

Aggiornamento firmware da console in remoto (solo protocolli VIDEOTEC MACRO e PELCO D)

Fino a 1023 unità indirizzabili via dip-switch

### 15.5 Protocolli

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

Numero massimo di preset per protocollo

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, solo da OSD (On Screen Display)

## 15.6 Telecamere

### TELECAMERE TERMICHE (RISOLUZIONE 320X256)

	Obiettivo 35mm		Obiettivo 25mm		Obiettivo 19mm		Obiettivo 13mm		Obiettivo 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Sensore immagini	Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)	
Risoluzione	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Dimensioni pixel	25µm		25µm		25µm		25µm		25µm	
Risposta spettrale - Infra-rossi onda lunga (LWIR)	da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm	
Otturatore interno (solo per compensazione sensore)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Zoom digitale	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Frequenza di aggiornamento immagine	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Alta frequenza di aggiornamento immagine	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Gamma scena (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Gamma scena (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Campo visione orizzontale	13°		18°		24°		34°		48°	
Campo visione verticale	10°		14°		18°		26°		37°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Sensibilità termica (NEΔT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Uomo (rilevamento / riconoscimento / identificazione)	800m / 200m / 105m		590m / 148m / 75m		450m / 112m / 56m		300m / 74m / 37m		205m / 52m / 26m	
Veicolo (rilevamento / riconoscimento / identificazione)	2250m / 590m / 290m		1650m / 430m / 215m		1280m / 330m / 165m		840m / 215m / 108m		590m / 150m / 74m	

Tab. 14



TELECAMERE TERMICHE (RISOLUZIONE 640X512)										
	Obiettivo 35mm		Obiettivo 25mm		Obiettivo 19mm		Obiettivo 13mm		Obiettivo 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Sensore immagini	Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)		Microbolometro non raffreddato (VOx)	
Risoluzione	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Dimensioni pixel	17µm		17µm		17µm		17µm		17µm	
Risposta spettrale - Infra-rossi onda lunga (LWIR)	da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm		da 7.5µm a 13.5µm	
Otturatore interno (solo per compensazione sensore)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Zoom digitale	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Frequenza di aggiornamento immagine	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Alta frequenza di aggiornamento immagine	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Gamma scena (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Gamma scena (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Campo visione orizzontale	18°		25°		32°		45°		69°	
Campo visione verticale	14°		20°		26°		37°		56°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Sensibilità termica (NEdT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Uomo (rilevamento / riconoscimento / identificazione)	1140m / 280m / 142m		820m / 210m / 104m		570m / 144m / 72m		390m / 95m / 47m		250m / 63m / 31m	
Veicolo (rilevamento / riconoscimento / identificazione)	3000m / 800m / 200m		2200m / 580m / 290m		1550m / 400m / 200m		1080m / 275m / 140m		720m / 175m / 88m	

Tab. 15

TELECAMERE ANALOGICHE (DAY/NIGHT)				
	Day/Night 36x		Day/Night 28x Alta sensibilità	
	PAL	NTSC	PAL	NTSC
Zoom ottico	36x		28x	
Wide Dynamic Range (Fix/Auto)	✓		-	
True progressive SCAN	✓		-	
Stabilizzazione immagine digitale	✓		✓	
Bilanciamento del bianco	Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)		Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)	
Elevata risoluzione orizzontale	Fino a 550 Linee TV		Fino a 550 Linee TV	
Day/Night (Auto ICR)	✓		✓	
Sensore di Immagine	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Numero di Pixel effettivi	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Illuminazione Min. Colore (IR-Cut Filter = OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Illuminazione Min. B/W	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
Aumento automatico del tempo di esposizione per migliorare la visione notturna	✓		✓	
Rapporto S/N	Superiore a 50dB		Superiore a 50dB	
Controllo AE	Automatico, Priorità di otturatore, Priorità di diaframma, Priorità di luminosità e Manuale		Automatico, Priorità di otturatore, Priorità di diaframma, Priorità di luminosità e Manuale	
Compensazione di retroilluminazione	On/Off		On/Off	
Mascheratura sferica (3D) della aree di Privacy con aggiornamento automatico	✓		✓	
Mascheratura della Zona di Privacy	On/Off (24 posizioni)		On/Off (24 posizioni)	
Numero massimo di blocchi di mascheratura visualizzabili	8		8	
Risoluzione dei blocchi di mascheratura	160x120 HxV		160x120 HxV	
Mascheratura	Fino a 15 tipi di mascheratura diversi: 14 colori oppure effetto mosaico		Fino a 15 tipi di mascheratura diversi: 14 colori oppure effetto mosaico	
Sistema di focalizzazione	Auto (Sensibilità: Normale, Bassa), Trigger PTZ, Manuale		Auto (Sensibilità: Normale, Bassa), Trigger PTZ, Manuale	
Controllo lenti "Intelligente"	Reset Lenti Automatico		Reset Lenti Automatico	
Elevata capacità di Zoom e ampio campo visivo orizzontale	✓		✓	
Zoom ottico	36x, f=3.4 (grandangolo) a 122.4mm (tele) / F1.6 a F4.5		28x, f=3.5 (grandangolo) a 98mm (tele) / F1.35 a F3.7	
Zoom digitale	12x (432x con zoom ottico)		12x (336x con zoom ottico)	
Angolo visivo (A)	57.8 gradi (grandangolo) a 1.7 gradi (tele)		55.8 gradi (grandangolo) a 2.1 gradi (tele)	
Distanza minima dell'oggetto	320mm (grandangolo) a 1500mm (tele)		10mm (grandangolo) a 1500mm (tele)	
Velocità Iris Elettronico	1/1 ÷ 1/10000s		1/1 ÷ 1/10000s	

Tab. 16

## 15.7 Ambiente

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Interno/Esterno

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Temperatura di esercizio (con riscaldamento): da -40°C fino a +60°C

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Resistenza al vento

- In movimento: fino a 160km/h
  - A riposo: fino a 210km/h
- 

Immunità agli impulsi: fino a 2kV tra linea e linea, fino a 4kV tra linea e terra (Classe 4)

## 15.8 Certificazioni

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Sicurezza elettrica (CE): EN60950-1, IEC60950-1

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Compatibilità elettromagnetica (CE): EN61000-6-4, EN50130-4, EN55022 (Classe A), EN61000-6-4, FCC Part 15 (Classe A)

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Installazione all'esterno (CE): EN60950-22, IEC60950-22

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Grado di protezione IP: EN60529 (IP66)

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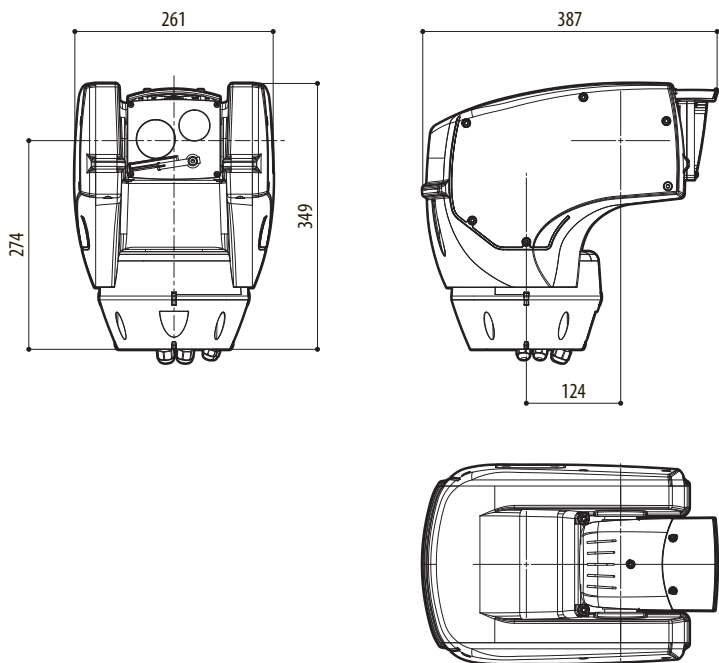
Certificazione UL: cULus Listed (TYPE 4X)

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Certificazione EAC

## 16 Disegni tecnici

**i** Le dimensioni dei disegni sono espresse in millimetri.



**Fig. 95** ULISSE COMPACT THERMAL.

# A Appendice - Tabella degli indirizzi



La levetta dello switch verso l'alto rappresenta il valore 1 (ON). La levetta verso il basso rappresenta il valore 0 (OFF).

Di seguito sono riportate tutte le combinazioni possibili.

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo non valido	Indirizzo 512
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 1	Indirizzo 513
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 2	Indirizzo 514
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 3	Indirizzo 515
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 4	Indirizzo 516
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 5	Indirizzo 517
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 6	Indirizzo 518
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Indirizzo 7	Indirizzo 519
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 8	Indirizzo 520
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 9	Indirizzo 521
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 10	Indirizzo 522
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 11	Indirizzo 523
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 12	Indirizzo 524
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 13	Indirizzo 525
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 14	Indirizzo 526
ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Indirizzo 15	Indirizzo 527
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 16	Indirizzo 528
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 17	Indirizzo 529
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 18	Indirizzo 530
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 19	Indirizzo 531
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 20	Indirizzo 532
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 21	Indirizzo 533
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 22	Indirizzo 534
ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Indirizzo 23	Indirizzo 535
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 24	Indirizzo 536
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 25	Indirizzo 537
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 26	Indirizzo 538
ON	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 27	Indirizzo 539
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 28	Indirizzo 540
ON	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 29	Indirizzo 541
OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 30	Indirizzo 542
ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Indirizzo 31	Indirizzo 543
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 32	Indirizzo 544
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 33	Indirizzo 545
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 34	Indirizzo 546
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 35	Indirizzo 547
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 36	Indirizzo 548
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 37	Indirizzo 549
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 38	Indirizzo 550

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Indirizzo 39	Indirizzo 551
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 40	Indirizzo 552
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 41	Indirizzo 553
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 42	Indirizzo 554
ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 43	Indirizzo 555
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 44	Indirizzo 556
ON	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 45	Indirizzo 557
OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 46	Indirizzo 558
ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Indirizzo 47	Indirizzo 559
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 48	Indirizzo 560
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 49	Indirizzo 561
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 50	Indirizzo 562
ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 51	Indirizzo 563
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 52	Indirizzo 564
ON	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 53	Indirizzo 565
OFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 54	Indirizzo 566
ON	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Indirizzo 55	Indirizzo 567
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Indirizzo 56	Indirizzo 568
ON	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Indirizzo 57	Indirizzo 569
OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Indirizzo 58	Indirizzo 570
ON	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Indirizzo 59	Indirizzo 571
OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Indirizzo 60	Indirizzo 572
ON	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Indirizzo 61	Indirizzo 573
OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	Indirizzo 62	Indirizzo 574
ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	Indirizzo 63	Indirizzo 575
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 64	Indirizzo 576
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 65	Indirizzo 577
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 66	Indirizzo 578
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 67	Indirizzo 579
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 68	Indirizzo 580
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 69	Indirizzo 581
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 70	Indirizzo 582
ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Indirizzo 71	Indirizzo 583
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 72	Indirizzo 584
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 73	Indirizzo 585
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 74	Indirizzo 586
ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 75	Indirizzo 587
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 76	Indirizzo 588
ON	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 77	Indirizzo 589
OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 78	Indirizzo 590
ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Indirizzo 79	Indirizzo 591
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 80	Indirizzo 592
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 81	Indirizzo 593
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 82	Indirizzo 594
ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 83	Indirizzo 595

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 84	Indirizzo 596
ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 85	Indirizzo 597
OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 86	Indirizzo 598
ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Indirizzo 87	Indirizzo 599
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Indirizzo 88	Indirizzo 600
ON	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Indirizzo 89	Indirizzo 601
OFF	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Indirizzo 90	Indirizzo 602
ON	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Indirizzo 91	Indirizzo 603
OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Indirizzo 92	Indirizzo 604
ON	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Indirizzo 93	Indirizzo 605
OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	Indirizzo 94	Indirizzo 606
ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	Indirizzo 95	Indirizzo 607
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 96	Indirizzo 608
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 97	Indirizzo 609
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 98	Indirizzo 610
ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 99	Indirizzo 611
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 100	Indirizzo 612
ON	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 101	Indirizzo 613
OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 102	Indirizzo 614
ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Indirizzo 103	Indirizzo 615
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Indirizzo 104	Indirizzo 616
ON	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Indirizzo 105	Indirizzo 617
OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Indirizzo 106	Indirizzo 618
ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Indirizzo 107	Indirizzo 619
OFF	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Indirizzo 108	Indirizzo 620
ON	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Indirizzo 109	Indirizzo 621
OFF	ON	ON	ON	OFF	ON	ON	OFF	OFF	Indirizzo 110	Indirizzo 622
ON	ON	ON	ON	OFF	ON	ON	OFF	OFF	Indirizzo 111	Indirizzo 623
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Indirizzo 112	Indirizzo 624
ON	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Indirizzo 113	Indirizzo 625
OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Indirizzo 114	Indirizzo 626
ON	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Indirizzo 115	Indirizzo 627
OFF	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Indirizzo 116	Indirizzo 628
ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Indirizzo 117	Indirizzo 629
OFF	ON	ON	OFF	ON	ON	ON	OFF	OFF	Indirizzo 118	Indirizzo 630
ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	Indirizzo 119	Indirizzo 631
OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Indirizzo 120	Indirizzo 632
ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Indirizzo 121	Indirizzo 633
OFF	ON	OFF	ON	ON	ON	ON	OFF	OFF	Indirizzo 122	Indirizzo 634
ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	Indirizzo 123	Indirizzo 635
OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	Indirizzo 124	Indirizzo 636
ON	OFF	ON	ON	ON	ON	ON	OFF	OFF	Indirizzo 125	Indirizzo 637
OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	Indirizzo 126	Indirizzo 638
ON	ON	ON	ON	ON	ON	ON	OFF	OFF	Indirizzo 127	Indirizzo 639
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 128	Indirizzo 640

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 129	Indirizzo 641
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 130	Indirizzo 642
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 131	Indirizzo 643
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 132	Indirizzo 644
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 133	Indirizzo 645
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 134	Indirizzo 646
ON	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Indirizzo 135	Indirizzo 647
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 136	Indirizzo 648
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 137	Indirizzo 649
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 138	Indirizzo 650
ON	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 139	Indirizzo 651
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 140	Indirizzo 652
ON	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 141	Indirizzo 653
OFF	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 142	Indirizzo 654
ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Indirizzo 143	Indirizzo 655
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 144	Indirizzo 656
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 145	Indirizzo 657
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 146	Indirizzo 658
ON	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 147	Indirizzo 659
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 148	Indirizzo 660
ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 149	Indirizzo 661
OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 150	Indirizzo 662
ON	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Indirizzo 151	Indirizzo 663
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Indirizzo 152	Indirizzo 664
ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Indirizzo 153	Indirizzo 665
OFF	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Indirizzo 154	Indirizzo 666
ON	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Indirizzo 155	Indirizzo 667
OFF	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Indirizzo 156	Indirizzo 668
ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Indirizzo 157	Indirizzo 669
OFF	ON	ON	ON	ON	OFF	OFF	ON	OFF	Indirizzo 158	Indirizzo 670
ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	Indirizzo 159	Indirizzo 671
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 160	Indirizzo 672
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 161	Indirizzo 673
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 162	Indirizzo 674
ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 163	Indirizzo 675
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 164	Indirizzo 676
ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 165	Indirizzo 677
OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 166	Indirizzo 678
ON	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Indirizzo 167	Indirizzo 679
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Indirizzo 168	Indirizzo 680
ON	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Indirizzo 169	Indirizzo 681
OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Indirizzo 170	Indirizzo 682
ON	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Indirizzo 171	Indirizzo 683
OFF	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Indirizzo 172	Indirizzo 684
ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Indirizzo 173	Indirizzo 685



CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	ON	ON	OFF	ON	OFF	ON	OFF	Indirizzo 174	Indirizzo 686
ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	Indirizzo 175	Indirizzo 687
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Indirizzo 176	Indirizzo 688
ON	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Indirizzo 177	Indirizzo 689
OFF	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Indirizzo 178	Indirizzo 690
ON	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Indirizzo 179	Indirizzo 691
OFF	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Indirizzo 180	Indirizzo 692
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Indirizzo 181	Indirizzo 693
OFF	ON	ON	OFF	ON	ON	OFF	ON	OFF	Indirizzo 182	Indirizzo 694
ON	ON	ON	OFF	ON	ON	OFF	ON	OFF	Indirizzo 183	Indirizzo 695
OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Indirizzo 184	Indirizzo 696
ON	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Indirizzo 185	Indirizzo 697
OFF	ON	OFF	ON	ON	ON	OFF	ON	OFF	Indirizzo 186	Indirizzo 698
ON	ON	OFF	ON	ON	ON	OFF	ON	OFF	Indirizzo 187	Indirizzo 699
OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	Indirizzo 188	Indirizzo 700
ON	OFF	ON	ON	ON	ON	OFF	ON	OFF	Indirizzo 189	Indirizzo 701
OFF	ON	ON	ON	ON	ON	OFF	ON	OFF	Indirizzo 190	Indirizzo 702
ON	ON	ON	ON	ON	ON	OFF	ON	OFF	Indirizzo 191	Indirizzo 703
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 192	Indirizzo 704
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 193	Indirizzo 705
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 194	Indirizzo 706
ON	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 195	Indirizzo 707
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 196	Indirizzo 708
ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 197	Indirizzo 709
OFF	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 198	Indirizzo 710
ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Indirizzo 199	Indirizzo 711
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Indirizzo 200	Indirizzo 712
ON	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Indirizzo 201	Indirizzo 713
OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Indirizzo 202	Indirizzo 714
ON	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Indirizzo 203	Indirizzo 715
OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Indirizzo 204	Indirizzo 716
ON	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Indirizzo 205	Indirizzo 717
OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	Indirizzo 206	Indirizzo 718
ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	Indirizzo 207	Indirizzo 719
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Indirizzo 208	Indirizzo 720
ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Indirizzo 209	Indirizzo 721
OFF	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Indirizzo 210	Indirizzo 722
ON	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Indirizzo 211	Indirizzo 723
OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Indirizzo 212	Indirizzo 724
ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Indirizzo 213	Indirizzo 725
OFF	ON	ON	OFF	ON	OFF	ON	ON	OFF	Indirizzo 214	Indirizzo 726
ON	ON	ON	OFF	ON	OFF	ON	ON	OFF	Indirizzo 215	Indirizzo 727
OFF	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Indirizzo 216	Indirizzo 728
ON	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Indirizzo 217	Indirizzo 729
OFF	ON	OFF	ON	ON	OFF	ON	ON	OFF	Indirizzo 218	Indirizzo 730

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	OFF	ON	ON	OFF	ON	ON	OFF	Indirizzo 219	Indirizzo 731
OFF	OFF	ON	ON	ON	OFF	ON	ON	OFF	Indirizzo 220	Indirizzo 732
ON	OFF	ON	ON	ON	OFF	ON	ON	OFF	Indirizzo 221	Indirizzo 733
OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	Indirizzo 222	Indirizzo 734
ON	ON	ON	ON	ON	OFF	ON	ON	OFF	Indirizzo 223	Indirizzo 735
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Indirizzo 224	Indirizzo 736
ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Indirizzo 225	Indirizzo 737
OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Indirizzo 226	Indirizzo 738
ON	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Indirizzo 227	Indirizzo 739
OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Indirizzo 228	Indirizzo 740
ON	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Indirizzo 229	Indirizzo 741
OFF	ON	ON	OFF	OFF	ON	ON	ON	OFF	Indirizzo 230	Indirizzo 742
ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	Indirizzo 231	Indirizzo 743
OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Indirizzo 232	Indirizzo 744
ON	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Indirizzo 233	Indirizzo 745
OFF	ON	OFF	ON	OFF	ON	ON	ON	OFF	Indirizzo 234	Indirizzo 746
ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	Indirizzo 235	Indirizzo 747
OFF	OFF	ON	ON	OFF	ON	ON	ON	OFF	Indirizzo 236	Indirizzo 748
ON	OFF	ON	ON	OFF	ON	ON	ON	OFF	Indirizzo 237	Indirizzo 749
OFF	ON	ON	ON	OFF	ON	ON	ON	OFF	Indirizzo 238	Indirizzo 750
ON	ON	ON	ON	OFF	ON	ON	ON	OFF	Indirizzo 239	Indirizzo 751
OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Indirizzo 240	Indirizzo 752
ON	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Indirizzo 241	Indirizzo 753
OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	Indirizzo 242	Indirizzo 754
ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	Indirizzo 243	Indirizzo 755
OFF	OFF	ON	OFF	ON	ON	ON	ON	OFF	Indirizzo 244	Indirizzo 756
ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	Indirizzo 245	Indirizzo 757
OFF	ON	ON	OFF	ON	ON	ON	ON	OFF	Indirizzo 246	Indirizzo 758
ON	ON	ON	OFF	ON	ON	ON	ON	OFF	Indirizzo 247	Indirizzo 759
OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	Indirizzo 248	Indirizzo 760
ON	OFF	OFF	ON	ON	ON	ON	ON	OFF	Indirizzo 249	Indirizzo 761
OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	Indirizzo 250	Indirizzo 762
ON	ON	OFF	ON	ON	ON	ON	ON	OFF	Indirizzo 251	Indirizzo 763
OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	Indirizzo 252	Indirizzo 764
ON	OFF	ON	ON	ON	ON	ON	ON	OFF	Indirizzo 253	Indirizzo 765
OFF	ON	ON	ON	ON	ON	ON	ON	OFF	Indirizzo 254	Indirizzo 766
ON	ON	ON	ON	ON	ON	ON	ON	OFF	Indirizzo 255	Indirizzo 767
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 256	Indirizzo 768
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 257	Indirizzo 769
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 258	Indirizzo 770
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 259	Indirizzo 771
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 260	Indirizzo 772
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 261	Indirizzo 773
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 262	Indirizzo 774
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Indirizzo 263	Indirizzo 775

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 264	Indirizzo 776
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 265	Indirizzo 777
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 266	Indirizzo 778
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 267	Indirizzo 779
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 268	Indirizzo 780
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 269	Indirizzo 781
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 270	Indirizzo 782
ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Indirizzo 271	Indirizzo 783
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 272	Indirizzo 784
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 273	Indirizzo 785
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 274	Indirizzo 786
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 275	Indirizzo 787
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 276	Indirizzo 788
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 277	Indirizzo 789
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 278	Indirizzo 790
ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Indirizzo 279	Indirizzo 791
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Indirizzo 280	Indirizzo 792
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Indirizzo 281	Indirizzo 793
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Indirizzo 282	Indirizzo 794
ON	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Indirizzo 283	Indirizzo 795
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Indirizzo 284	Indirizzo 796
ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Indirizzo 285	Indirizzo 797
OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	Indirizzo 286	Indirizzo 798
ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	Indirizzo 287	Indirizzo 799
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 288	Indirizzo 800
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 289	Indirizzo 801
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 290	Indirizzo 802
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 291	Indirizzo 803
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 292	Indirizzo 804
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 293	Indirizzo 805
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 294	Indirizzo 806
ON	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Indirizzo 295	Indirizzo 807
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Indirizzo 296	Indirizzo 808
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Indirizzo 297	Indirizzo 809
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Indirizzo 298	Indirizzo 810
ON	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Indirizzo 299	Indirizzo 811
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Indirizzo 300	Indirizzo 812
ON	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Indirizzo 301	Indirizzo 813
OFF	ON	ON	ON	OFF	ON	OFF	OFF	ON	Indirizzo 302	Indirizzo 814
ON	ON	ON	ON	OFF	ON	OFF	OFF	ON	Indirizzo 303	Indirizzo 815
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Indirizzo 304	Indirizzo 816
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Indirizzo 305	Indirizzo 817
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Indirizzo 306	Indirizzo 818
ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Indirizzo 307	Indirizzo 819
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Indirizzo 308	Indirizzo 820

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Indirizzo 309	Indirizzo 821
OFF	ON	ON	OFF	ON	ON	OFF	OFF	ON	Indirizzo 310	Indirizzo 822
ON	ON	ON	OFF	ON	ON	OFF	OFF	ON	Indirizzo 311	Indirizzo 823
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Indirizzo 312	Indirizzo 824
ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Indirizzo 313	Indirizzo 825
OFF	ON	OFF	ON	ON	ON	OFF	OFF	ON	Indirizzo 314	Indirizzo 826
ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	Indirizzo 315	Indirizzo 827
OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	Indirizzo 316	Indirizzo 828
ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	Indirizzo 317	Indirizzo 829
OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	Indirizzo 318	Indirizzo 830
ON	ON	ON	ON	ON	ON	OFF	OFF	ON	Indirizzo 319	Indirizzo 831
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 320	Indirizzo 832
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 321	Indirizzo 833
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 322	Indirizzo 834
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 323	Indirizzo 835
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 324	Indirizzo 836
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 325	Indirizzo 837
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 326	Indirizzo 838
ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Indirizzo 327	Indirizzo 839
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Indirizzo 328	Indirizzo 840
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Indirizzo 329	Indirizzo 841
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Indirizzo 330	Indirizzo 842
ON	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Indirizzo 331	Indirizzo 843
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Indirizzo 332	Indirizzo 844
ON	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Indirizzo 333	Indirizzo 845
OFF	ON	ON	ON	OFF	OFF	ON	OFF	ON	Indirizzo 334	Indirizzo 846
ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	Indirizzo 335	Indirizzo 847
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Indirizzo 336	Indirizzo 848
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Indirizzo 337	Indirizzo 849
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Indirizzo 338	Indirizzo 850
ON	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Indirizzo 339	Indirizzo 851
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Indirizzo 340	Indirizzo 852
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Indirizzo 341	Indirizzo 853
OFF	ON	ON	OFF	ON	OFF	ON	OFF	ON	Indirizzo 342	Indirizzo 854
ON	ON	ON	OFF	ON	OFF	ON	OFF	ON	Indirizzo 343	Indirizzo 855
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Indirizzo 344	Indirizzo 856
ON	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Indirizzo 345	Indirizzo 857
OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	Indirizzo 346	Indirizzo 858
ON	ON	OFF	ON	ON	OFF	ON	OFF	ON	Indirizzo 347	Indirizzo 859
OFF	OFF	ON	ON	ON	OFF	ON	OFF	ON	Indirizzo 348	Indirizzo 860
ON	OFF	ON	ON	ON	OFF	ON	OFF	ON	Indirizzo 349	Indirizzo 861
OFF	ON	ON	ON	ON	OFF	ON	OFF	ON	Indirizzo 350	Indirizzo 862
ON	ON	ON	ON	ON	OFF	ON	OFF	ON	Indirizzo 351	Indirizzo 863
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Indirizzo 352	Indirizzo 864
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Indirizzo 353	Indirizzo 865

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Indirizzo 354	Indirizzo 866
ON	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Indirizzo 355	Indirizzo 867
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Indirizzo 356	Indirizzo 868
ON	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Indirizzo 357	Indirizzo 869
OFF	ON	ON	OFF	OFF	ON	ON	OFF	ON	Indirizzo 358	Indirizzo 870
ON	ON	ON	OFF	OFF	ON	ON	OFF	ON	Indirizzo 359	Indirizzo 871
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Indirizzo 360	Indirizzo 872
ON	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Indirizzo 361	Indirizzo 873
OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	Indirizzo 362	Indirizzo 874
ON	ON	OFF	ON	OFF	ON	ON	OFF	ON	Indirizzo 363	Indirizzo 875
OFF	OFF	ON	ON	OFF	ON	ON	OFF	ON	Indirizzo 364	Indirizzo 876
ON	OFF	ON	ON	OFF	ON	ON	OFF	ON	Indirizzo 365	Indirizzo 877
OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	Indirizzo 366	Indirizzo 878
ON	ON	ON	ON	OFF	ON	ON	OFF	ON	Indirizzo 367	Indirizzo 879
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Indirizzo 368	Indirizzo 880
ON	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Indirizzo 369	Indirizzo 881
OFF	ON	OFF	OFF	ON	ON	ON	OFF	ON	Indirizzo 370	Indirizzo 882
ON	ON	OFF	OFF	ON	ON	ON	OFF	ON	Indirizzo 371	Indirizzo 883
OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	Indirizzo 372	Indirizzo 884
ON	OFF	ON	OFF	ON	ON	ON	OFF	ON	Indirizzo 373	Indirizzo 885
OFF	ON	ON	OFF	ON	ON	ON	OFF	ON	Indirizzo 374	Indirizzo 886
ON	ON	ON	OFF	ON	ON	ON	OFF	ON	Indirizzo 375	Indirizzo 887
OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	Indirizzo 376	Indirizzo 888
ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	Indirizzo 377	Indirizzo 889
OFF	ON	OFF	ON	ON	ON	ON	OFF	ON	Indirizzo 378	Indirizzo 890
ON	ON	OFF	ON	ON	ON	ON	OFF	ON	Indirizzo 379	Indirizzo 891
OFF	OFF	ON	ON	ON	ON	ON	OFF	ON	Indirizzo 380	Indirizzo 892
ON	OFF	ON	ON	ON	ON	ON	OFF	ON	Indirizzo 381	Indirizzo 893
OFF	ON	ON	ON	ON	ON	ON	OFF	ON	Indirizzo 382	Indirizzo 894
ON	ON	ON	ON	ON	ON	ON	OFF	ON	Indirizzo 383	Indirizzo 895
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 384	Indirizzo 896
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 385	Indirizzo 897
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 386	Indirizzo 898
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 387	Indirizzo 899
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 388	Indirizzo 900
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 389	Indirizzo 901
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 390	Indirizzo 902
ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Indirizzo 391	Indirizzo 903
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Indirizzo 392	Indirizzo 904
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Indirizzo 393	Indirizzo 905
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Indirizzo 394	Indirizzo 906
ON	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Indirizzo 395	Indirizzo 907
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Indirizzo 396	Indirizzo 908
ON	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Indirizzo 397	Indirizzo 909
OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	Indirizzo 398	Indirizzo 910

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	Indirizzo 399	Indirizzo 911
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Indirizzo 400	Indirizzo 912
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Indirizzo 401	Indirizzo 913
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Indirizzo 402	Indirizzo 914
ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Indirizzo 403	Indirizzo 915
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Indirizzo 404	Indirizzo 916
ON	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Indirizzo 405	Indirizzo 917
OFF	ON	ON	OFF	ON	OFF	OFF	ON	ON	Indirizzo 406	Indirizzo 918
ON	ON	ON	OFF	ON	OFF	OFF	ON	ON	Indirizzo 407	Indirizzo 919
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Indirizzo 408	Indirizzo 920
ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Indirizzo 409	Indirizzo 921
OFF	ON	OFF	ON	ON	OFF	OFF	ON	ON	Indirizzo 410	Indirizzo 922
ON	ON	OFF	ON	ON	OFF	OFF	ON	ON	Indirizzo 411	Indirizzo 923
OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	Indirizzo 412	Indirizzo 924
ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	Indirizzo 413	Indirizzo 925
OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	Indirizzo 414	Indirizzo 926
ON	ON	ON	ON	ON	OFF	OFF	ON	ON	Indirizzo 415	Indirizzo 927
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Indirizzo 416	Indirizzo 928
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Indirizzo 417	Indirizzo 929
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Indirizzo 418	Indirizzo 930
ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Indirizzo 419	Indirizzo 931
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Indirizzo 420	Indirizzo 932
ON	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Indirizzo 421	Indirizzo 933
OFF	ON	ON	OFF	OFF	ON	OFF	ON	ON	Indirizzo 422	Indirizzo 934
ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	Indirizzo 423	Indirizzo 935
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Indirizzo 424	Indirizzo 936
ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Indirizzo 425	Indirizzo 937
OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	Indirizzo 426	Indirizzo 938
ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	Indirizzo 427	Indirizzo 939
OFF	OFF	ON	ON	OFF	ON	OFF	ON	ON	Indirizzo 428	Indirizzo 940
ON	OFF	ON	ON	OFF	ON	OFF	ON	ON	Indirizzo 429	Indirizzo 941
OFF	ON	ON	ON	OFF	ON	OFF	ON	ON	Indirizzo 430	Indirizzo 942
ON	ON	ON	ON	OFF	ON	OFF	ON	ON	Indirizzo 431	Indirizzo 943
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Indirizzo 432	Indirizzo 944
ON	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Indirizzo 433	Indirizzo 945
OFF	ON	OFF	OFF	ON	ON	OFF	ON	ON	Indirizzo 434	Indirizzo 946
ON	ON	OFF	OFF	ON	ON	OFF	ON	ON	Indirizzo 435	Indirizzo 947
OFF	OFF	ON	OFF	ON	ON	OFF	ON	ON	Indirizzo 436	Indirizzo 948
ON	OFF	ON	OFF	ON	ON	OFF	ON	ON	Indirizzo 437	Indirizzo 949
OFF	ON	ON	OFF	ON	ON	OFF	ON	ON	Indirizzo 438	Indirizzo 950
ON	ON	ON	OFF	ON	ON	OFF	ON	ON	Indirizzo 439	Indirizzo 951
OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	Indirizzo 440	Indirizzo 952
ON	OFF	OFF	ON	ON	ON	OFF	ON	ON	Indirizzo 441	Indirizzo 953
OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	Indirizzo 442	Indirizzo 954
ON	ON	OFF	ON	ON	ON	OFF	ON	ON	Indirizzo 443	Indirizzo 955

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	Indirizzo 444	Indirizzo 956
ON	OFF	ON	ON	ON	ON	OFF	ON	ON	Indirizzo 445	Indirizzo 957
OFF	ON	ON	ON	ON	ON	OFF	ON	ON	Indirizzo 446	Indirizzo 958
ON	ON	ON	ON	ON	ON	OFF	ON	ON	Indirizzo 447	Indirizzo 959
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Indirizzo 448	Indirizzo 960
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Indirizzo 449	Indirizzo 961
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Indirizzo 450	Indirizzo 962
ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Indirizzo 451	Indirizzo 963
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Indirizzo 452	Indirizzo 964
ON	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Indirizzo 453	Indirizzo 965
OFF	ON	ON	OFF	OFF	OFF	ON	ON	ON	Indirizzo 454	Indirizzo 966
ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	Indirizzo 455	Indirizzo 967
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Indirizzo 456	Indirizzo 968
ON	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Indirizzo 457	Indirizzo 969
OFF	ON	OFF	ON	OFF	OFF	ON	ON	ON	Indirizzo 458	Indirizzo 970
ON	ON	OFF	ON	OFF	OFF	ON	ON	ON	Indirizzo 459	Indirizzo 971
OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	Indirizzo 460	Indirizzo 972
ON	OFF	ON	ON	OFF	OFF	ON	ON	ON	Indirizzo 461	Indirizzo 973
OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	Indirizzo 462	Indirizzo 974
ON	ON	ON	ON	OFF	OFF	ON	ON	ON	Indirizzo 463	Indirizzo 975
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Indirizzo 464	Indirizzo 976
ON	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Indirizzo 465	Indirizzo 977
OFF	ON	OFF	OFF	ON	OFF	ON	ON	ON	Indirizzo 466	Indirizzo 978
ON	ON	OFF	OFF	ON	OFF	ON	ON	ON	Indirizzo 467	Indirizzo 979
OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON	Indirizzo 468	Indirizzo 980
ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	Indirizzo 469	Indirizzo 981
OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	Indirizzo 470	Indirizzo 982
ON	ON	ON	OFF	ON	OFF	ON	ON	ON	Indirizzo 471	Indirizzo 983
OFF	OFF	OFF	ON	ON	OFF	ON	ON	ON	Indirizzo 472	Indirizzo 984
ON	OFF	OFF	ON	ON	OFF	ON	ON	ON	Indirizzo 473	Indirizzo 985
OFF	ON	OFF	ON	ON	OFF	ON	ON	ON	Indirizzo 474	Indirizzo 986
ON	ON	OFF	ON	ON	OFF	ON	ON	ON	Indirizzo 475	Indirizzo 987
OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	Indirizzo 476	Indirizzo 988
ON	OFF	ON	ON	ON	OFF	ON	ON	ON	Indirizzo 477	Indirizzo 989
OFF	ON	ON	ON	ON	OFF	ON	ON	ON	Indirizzo 478	Indirizzo 990
ON	ON	ON	ON	ON	OFF	ON	ON	ON	Indirizzo 479	Indirizzo 991
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Indirizzo 480	Indirizzo 992
ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Indirizzo 481	Indirizzo 993
OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	Indirizzo 482	Indirizzo 994
ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	Indirizzo 483	Indirizzo 995
OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	Indirizzo 484	Indirizzo 996
ON	OFF	ON	OFF	OFF	ON	ON	ON	ON	Indirizzo 485	Indirizzo 997
OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	Indirizzo 486	Indirizzo 998
ON	ON	ON	OFF	OFF	ON	ON	ON	ON	Indirizzo 487	Indirizzo 999
OFF	OFF	OFF	ON	OFF	ON	ON	ON	ON	Indirizzo 488	Indirizzo 1000

CONFIGURAZIONE DELL'INDIRIZZO (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	ON	OFF	ON	ON	ON	ON	Indirizzo 489	Indirizzo 1001
OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	Indirizzo 490	Indirizzo 1002
ON	ON	OFF	ON	OFF	ON	ON	ON	ON	Indirizzo 491	Indirizzo 1003
OFF	OFF	ON	ON	OFF	ON	ON	ON	ON	Indirizzo 492	Indirizzo 1004
ON	OFF	ON	ON	OFF	ON	ON	ON	ON	Indirizzo 493	Indirizzo 1005
OFF	ON	ON	ON	OFF	ON	ON	ON	ON	Indirizzo 494	Indirizzo 1006
ON	ON	ON	ON	OFF	ON	ON	ON	ON	Indirizzo 495	Indirizzo 1007
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	Indirizzo 496	Indirizzo 1008
ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	Indirizzo 497	Indirizzo 1009
OFF	ON	OFF	OFF	ON	ON	ON	ON	ON	Indirizzo 498	Indirizzo 1010
ON	ON	OFF	OFF	ON	ON	ON	ON	ON	Indirizzo 499	Indirizzo 1011
OFF	OFF	ON	OFF	ON	ON	ON	ON	ON	Indirizzo 500	Indirizzo 1012
ON	OFF	ON	OFF	ON	ON	ON	ON	ON	Indirizzo 501	Indirizzo 1013
OFF	ON	ON	OFF	ON	ON	ON	ON	ON	Indirizzo 502	Indirizzo 1014
ON	ON	ON	OFF	ON	ON	ON	ON	ON	Indirizzo 503	Indirizzo 1015
OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	Indirizzo 504	Indirizzo 1016
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	Indirizzo 505	Indirizzo 1017
OFF	ON	OFF	ON	ON	ON	ON	ON	ON	Indirizzo 506	Indirizzo 1018
ON	ON	OFF	ON	ON	ON	ON	ON	ON	Indirizzo 507	Indirizzo 1019
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	Indirizzo 508	Indirizzo 1020
ON	OFF	ON	ON	ON	ON	ON	ON	ON	Indirizzo 509	Indirizzo 1021
OFF	ON	ON	ON	ON	ON	ON	ON	ON	Indirizzo 510	Indirizzo 1022
ON	ON	ON	ON	ON	ON	ON	ON	ON	Indirizzo 511	Indirizzo 1023

Tab. 17





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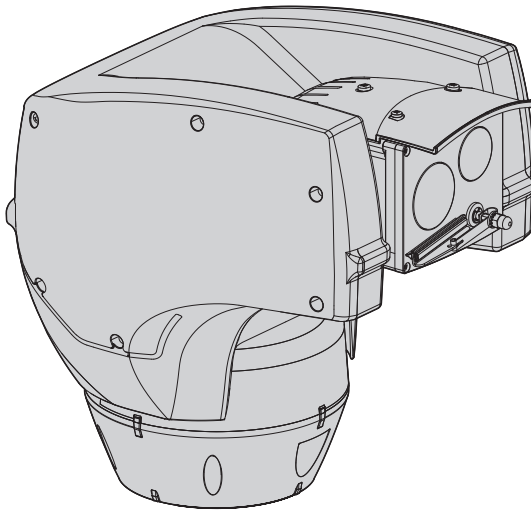
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**MNVUCT\_1511\_IT**



# ULISSE COMPACT THERMAL

**Caméra PTZ extérieure Dual Vision, Day/night et thermique,  
pour la surveillance dans l'obscurité totale**





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# 1 À propos de ce mode d'emploi

Avant d'installer et d'utiliser cet appareil, veuillez lire attentivement ce mode d'emploi. Conservez-le à portée de main pour pouvoir vous y reporter en cas de besoin.

## 1.1 Conventions typographiques



### **DANGER!**

**Risque élevé.**

**Risque de choc électrique. Sauf indication contraire, sectionner l'alimentation avant de procéder à toute opération.**



### **DANGER!**

**Danger mécanique.**

**Risque d'écrasement ou de cisaillement.**



### **DANGER!**

**Surface à température élevée.**

**Évitez le contact. La température des surfaces est élevée et leur contact peut provoquer des blessures corporelles.**



### **ATTENTION!**

**Risque moyen.**

**Opération extrêmement importante en vue d'un fonctionnement correct du système; lire avec attention les opérations indiquées et s'y conformer rigoureusement.**



### **REMARQUE**

**Description des caractéristiques du système.**

**Il est conseillé de procéder à une lecture attentive pour une meilleure compréhension des phases suivantes.**

## 3 Normes de sécurité



**ATTENTION! Le circuit électrique auquel l'unité est reliée doit être équipé d'un interrupteur de protection bipolaire automatique de 20A max. Cet interrupteur doit être de type Listed. La distance minimale entre les contacts doit être de 3mm. L'interrupteur doit être équipé de protection contre le courant de défaut vers la terre (différentiel) et le surintensité (magnétothermique).**



**ATTENTION! Parties mobiles dangereux. Ne pas approcher les doigts ou d'autres parties du corps.**



**ATTENTION! L'installation et l'entretien du dispositif doivent être exclusivement effectués par un personnel technique qualifié.**



**ATTENTION! L'installation est du type TNV-1. Ne pas la connecter à des circuits SELV.**



**ATTENTION! Pour assurer la protection contre le risque d'incendie, remplacer les fusibles avec le même type et valeur. Les fusibles doivent être remplacés seulement par un personnel qualifié.**



**ATTENTION! Pour réduire les risques d'incendie, utiliser uniquement des câbles certifiés UL Listed ou CSA de dimensions égales ou supérieures à 0.13mm<sup>2</sup> (26 AWG).**

## 2 Notes sur le copyright et informations sur les marques de commerce

Les noms de produit ou de sociétés cités sont des marques de commerce ou des marques de commerce enregistrées.

Microsoft Internet Explorer®, Windows XP®, Windows Vista® sont la propriété de Microsoft Corporation.

INTEL® Core™ 2 Duo, INTEL® Core™ 2 Quad, INTEL® Xeon® sont la propriété d' Intel Corporation.

- Le fabricant décline toute responsabilité pour les dommages éventuels dus à une utilisation non appropriée des appareils mentionnés dans ce manuel. On réserve en outre le droit d'en modifier le contenu sans préavis. La documentation contenue dans ce manuel a été rassemblée et vérifiée avec le plus grand soin. Le fabricant, cependant, ne peut assumer aucune responsabilité dérivant de l'emploi de celle là. La même chose vaut pour chaque personne ou société impliquées dans la création et la production de ce manuel.
- Sectionner l'alimentation avant de procéder à toute opération.
- Ne pas utiliser de câbles usés ou endommagés.
- Ne procéder sous aucun prétexte à des modifications ou des connexions non prévues dans ce manuel. L'utilisation d'appareils non adéquats peut comporter des dangers graves pour la sécurité du personnel et de l'installation.
- Utiliser uniquement des pièces de rechange d'origine. Les pièces non d'origine peuvent être source d'incendies, de choc électrique ou autres.
- Avant de procéder à l'installation, contrôler que le matériel fourni correspond à la commande et examiner les étiquettes de marquage (4.2 Marquage du produit, page 10).
- Cette appareil est conçu pour une installation permanente sur un bâtiment ou une structure adéquate. L'appareil doit être installé d'une façon permanente avant d'effectuer toute opération.
- La catégorie d'installation (ou catégorie de surtension) spécifie les niveaux de la tension de secteur correspondant à l'appareil. La catégorie dépend du lieu d'installation et du dispositif de protection contre les surtensions installé. En cas d'environnement industriel directement connecté aux circuits de dérivation du système d'alimentation, l'équipement est classé dans la catégorie d'installation III. Dans ce cas, un déclassement à la catégorie II est nécessaire et peut être obtenu au moyen d'un transformateur d'isolement avec blindage électrostatique entre le primaire et le secondaire ou en utilisant des dispositifs de protection contre les surtensions (SPD) entre la phase et le neutre et entre le neutre et la terre. Les dispositifs SPD UL cités doivent être prévus pour limiter les surtensions transitoires en mode répétitif et pour les conditions nominales de fonctionnement suivantes : Type 2 (dispositifs SPD reliés en permanence au côté charge du côté du dispositif de protection contre les surintensités) ; courant nominal de décharge (In) 20kA min. Exemples d'utilisation possible : FERRAZ SHAWMUT, ST23401PG-CN, ST240SPG-CN spécifiés pour 120Vac/240Vca, (In=20kA). La distance maximale entre installation et réduction est de 5m.
- Il faut, uniquement pour les produits marqués UL alimentés à 24Vac, utiliser un transformateur UL listed Classe 2, conforme aux normes en vigueur.
- Un dispositif de déconnexion, rapide et facile d'accès, doit être incorporé dans le circuit électrique du bâtiment pour une intervention rapide.
- La borne de terre disponible dans le produit doit être connecté en permanence à la terre.

- Raccorder le système à une source d'alimentation conforme à celle figurant sur l'étiquette de marquage du produit. Avant de procéder à l'installation, vérifier que la ligne électrique est sectionnée. La tension d'alimentation doit être comprise dans les limites ( $\pm 10\%$ ).
- En cas de transport du dispositif, faire preuve d'une attention extrême. Tout arrêt brusque, dévibrations et chocs violents risquent de l'endommager et d'entraîner des blessures.
- Pour être conforme aux règlements sur les chutes et les coupures de tension d'alimentation, veuillez utiliser un onduleur (UPS) approprié pour alimenter l'appareil.
- Les parties mobiles du système représentant un risque potentiel d'accident, le système doit être installé de façon à empêcher l'accès aux personnes non autorisées.
- Appliquer l'étiquette Parties mobiles dangereuses près de l'unité. (Fig. 2, page 11).
- Ne pas utiliser l'appareil en présence de substances inflammables.
- Ne pas laisser l'appareil à portée des enfants ou de personnes non autorisées.
- L'appareil ne doit être considéré comme désactivé qu'avec l'alimentation sectionnée et les câbles de connexion aux autres dispositifs débranchés.
- L'entretien du dispositif doit uniquement être effectué par un personnel qualifié. Durant les opérations d'entretien, l'opérateur est exposé au risque d'électrocution ou autres.
- Utiliser uniquement les accessoires indiqués par le fabricant. Toute modification non approuvée expressément par le fabricant entraînera l'annulation de la garantie.
- Brancher à la terre le câble coaxial.
- Avant de brancher tous les câbles de signalisation, vérifier que l'unité est correctement branchée à la terre.
- En cas de transfert du dispositif de l'installation, toujours débrancher le câble de terre en dernier.
- Adopter les précautions utiles pour éviter d'endommager l'appareil à la suite de décharges électrostatiques.
- L'unité a été réalisée pour un branchement avec câble tri-polaire. Se conformer aux indications fournies dans ce manuel pour un branchement correct du circuit de terre.
- Manipuler avec soin l'unité, toute sollicitation mécanique importante risque de l'endommager.
- Accorder une attention particulière aux distances d'isolement entre la ligne d'alimentation et tous les autres câbles, dispositifs de protection contre la foudre compris.

## 4 Identification

### 4.1 Description et désignation du produit

La caméra PTZ ULISSE COMPACT THERMAL offre une solution intégrée exceptionnelle pour une surveillance efficace même dans l'obscurité totale ou dans des conditions environnementales extrêmes, brouillard, pluie, fumée ou pour des distances importantes.

En effet, l'unité comporte une caméra optique et une caméra thermique alignées, avec une gestion indépendante des deux flux vidéo.

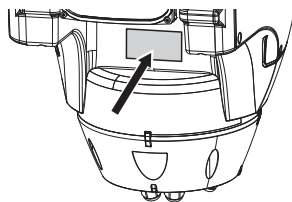
La caméra Day/Night est à même d'identifier clairement la cible dans des conditions d'éclairage normal, tandis que l'imagerie thermique permet la détection de personnes et d'événements, dans une parfaite obscurité, fumée ou brouillard intense.

L'utilisation de cette solution est particulièrement utile dans des applications critiques où est requise une surveillance non-stop constante et fiable d'un espace extérieur et un système infallible de détection d'événements et de présences, qui n'exige pas d'interventions de maintenance.

La fabrication soignée top-mount permet la vision au-delà de l'horizon et la rotation continue sur l'axe horizontal et associe une vitesse élevée à une précision de mise au point absolue, aussi bien en manuel qu'en fonction de patrouille.

### 4.2 Marquage du produit

**i** Les tourelles portent un étiquette conforme au marquage CE.



**Fig. 1**

L'étiquette indique:

- Code d'identification du modèle (Code barres Extended 3/9).
- Tension d'alimentation (Volt).
- Fréquence (Hertz).
- Courant absorbé (Ampères).
- Étanchéité (IP).
- Numéro de série.

#### 4.2.1 Contrôle du marquage

Avant de procéder à l'installation, contrôler que le matériel fourni correspond à la commande et examiner les étiquettes de marquage.

Ne procéder sous aucun prétexte à des modifications ou des connexions non prévues dans ce manuel. L'utilisation d'appareils non adéquats peut comporter des dangers graves pour la sécurité du personnel et de l'installation.

## 5 Préparation du produit en vue de l'utilisation



**Toute modification non approuvée expressément par le fabricant entraînera l'annulation de la garantie.**

### 5.1 Précautions de sécurité avant l'utilisation



**L'appareil comprend des parties mobiles. S'assurer que l'unité est positionnée dans une zone non accessible pendant le fonctionnement. Appliquer l'étiquette fournie avec l'appareil près de l'objet et en position visible.**



Fig. 2

## 5.2 Déballage

Lors de la livraison du produit, vérifier que l'emballage est en bon état et l'absence de tout signe évident de chute ou d'abrasion.

En cas de dommages évidents, contacter immédiatement le fournisseur.

Conserver l'emballage en cas de nécessité d'expédition du produit pour réparation.

## 5.3 Contenu

Contrôler que le contenu correspond à la liste matériel indiquée ci-dessous:

- Unité de positionnement
- Emballage accessoires
- Rallonge sérielle
- Étiquette
- Gaine en silicone
- Colliers
- Manuel d'instructions

## 5.4 Élimination sans danger des matériaux d'emballage

Le matériel d'emballage est entièrement composé de matériaux recyclables. Le technicien chargé de l'installation est tenu de l'éliminer conformément aux dispositions en matière de collecte sélective et selon les normes en vigueur dans le pays d'utilisation.

En cas de retour du produit défectueux, il est conseillé d'utiliser l'emballage original pour le transport.

## 5.5 Opérations à effectuer avant l'installation

### 5.5.1 Fixation du support

Plusieurs types de supports sont disponibles (9 Accessoires, page 48). Choisir le support convenable à l'installation et suivre toutes les instructions dans le chapitre suggéré.

**⚠** **Accorder une attention particulière aux systèmes de fixation de l'appareil. Si l'appareil doit être fixé à une surface en béton, utiliser des chevilles avec un couple de traction de 300dN chacune. En cas de surface métallique, utiliser des vis d'un diamètre minimum de 8mm et d'une longueur adéquate. Le système de fixation doit être tout de même être en mesure de supporter au moins 4 fois le poids de tout l'appareil, y compris la tourelle, les objectifs et les caméras.**

**⚠** **L'appareil doit être monté en position verticale. Tout autre position compromettrait le bon fonctionnement du système.**

### 5.5.2 Passage des câbles

**⚠** **Les câbles de connexion ne doivent pas être accessibles de l'extérieur. Les câbles doivent être fixés au support pour éviter que le poids excessif n'entraîne leur sortie accidentelle.**

**⚠** **Les câbles utilisés doivent être conformes au type d'installation.**

Passer les câbles à l'intérieur du support jusqu'à ce qu'ils dépassent d'environ 50cm.

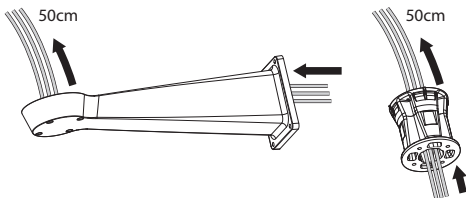


Fig. 3

## 6 Installation

**⚠** **Ne procéder sous aucun prétexte à des modifications ou des connexions non prévues dans ce manuel. L'utilisation d'appareils inadéquats peut comporter des risques sérieux pour les appareils et la sécurité du personnel.**

**⚠** **Ne pas modifier les câblages du produit. La non observation de cette indication peut entraîner des risques graves pour la sécurité du personnel de l'installation et annuler la garantie.**

**i** **Conservé un schéma de connexion pour toute consultation nécessaire.**

### 6.1 Connexion des câbles à la base

Passer les câbles dans les presse-câbles en maintenant la base à environ 20cm du support. Serrer les presse-étoupes. Les presse-étoupes sont adaptés pour câbles avec un diamètre compris entre 5mm et 10mm.

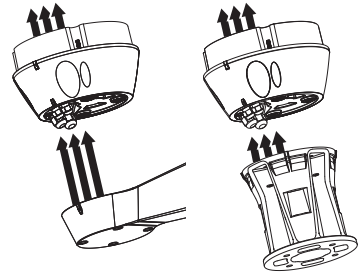


Fig. 4

## 6.2 Fixage de la base au support

 **Utiliser les vis et les rondelles fournies avec la base.**

Après avoir installé la garniture (01), fixer la base (02) sur son support (03) au moyen des vis (04), des rondelles dentées et des rondelles plates (05). Insérer les joints toriques anti-fuite des vis (06).

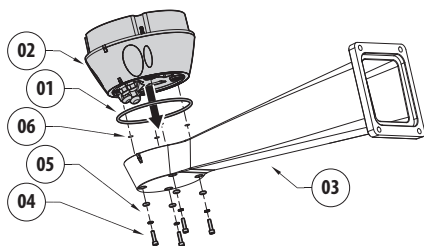


Fig. 5

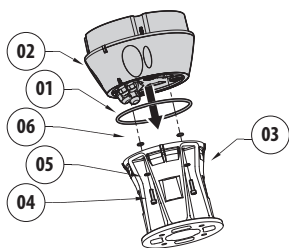


Fig. 6

Aligner les 3 encoches de la base avec celles des supports comme sur la figure suivante.

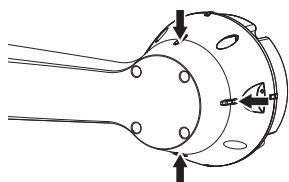



Fig. 7

 **Appliquer sur les trous des vis un produit de freinage du filet (Loctite 243®).**

 **Faire attention pendant la fixation. Couple de serrage: 4Nm.**

## 6.3 Connexion de la carte de connexion

### 6.3.1 Description de la carte de connexion

DESCRIPTION DE LA CARTE	
Connecteur	Fonction
J2	Ligne d'alimentation
J5/J7	Sortie vidéo
J10	Lignes de télémétrie

Tab. 1

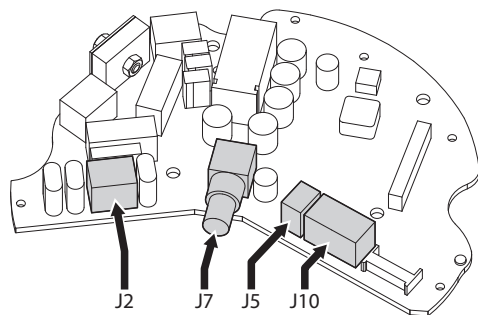


Fig. 8

## 6.3.2 Connexion de la ligne d'alimentation

**⚠ Il faut effectuer les connexions électriques en absence d'alimentation et lorsque le dispositif de sectionnement ouvert.**

**⚠ Contrôler que les sources d'alimentation et les câbles de branchement sont en mesure de supporter la consommation du système.**

**⚠ Le câble de terre doit être plus long des deux autres d'environ 10mm pour éviter tout détachement accidentel.**

**⚠ Procéder exclusivement aux connexions de la base avec l'alimentation sectionnée et le dispositif de sectionnement ouvert.**

**⚠ Le câble d'alimentation doit en outre être couvert de la gaine en silicone (01) fournie. La gaine en silicone doit être fixée au moyen du collier prévu (02).**

Selon la version, différentes tensions d'alimentation peuvent être fournies au dispositif. Leur valeur est indiquée sur l'étiquette d'identification du produit ( 4.2 Marquage du produit, page 10).

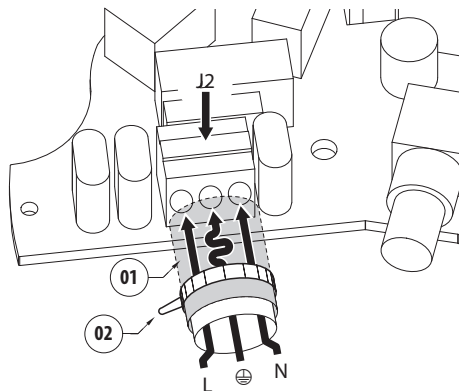


Fig. 9

Connecter les câbles d'alimentation au borne J2 comme décrit dans le tableau.

CONNEXION DE LA LIGNE D'ALIMENTATION	
Couleur	Bornes
<b>Alimentation 24Vac</b>	
Défini par l'installateur	N (Neutre)
Défini par l'installateur	L (Phase)
Jaune/Vert	GND
<b>Alimentation 230Vac</b>	
Bleue	N (Neutre)
Marron	L (Phase)
Jaune/Vert	GND
<b>Alimentation 120Vac</b>	
Bleue	N (Neutre)
Marron	L (Phase)
Jaune/Vert	GND

Tab. 2

**⚠ Il faut, uniquement pour les produits marqués UL alimentés à 24Vac, utiliser un transformateur UL listed Classe 2, conforme aux normes en vigueur.**

**⚠ Pour raccorder la ligne d'alimentation utiliser le boîtier de connexion spécifique (UPTJBUL). Pour plus d'informations, se référer au manuel d'utilisation et d'installation du produit.**



## 6.4 Connexion de la carte secondaire des connecteurs

**⚠** Tous les câbles de signalisation doivent également être regroupés avec un collier.

### 6.4.1 Description de la carte secondaire

DESCRIPTION DE LA CARTE	
Connecteur	Fonction
CN1/CN2	Relais et alarme
CN3	Sortie vidéo secondaire
CN4	Contrôle de la caméra thermique
DS1	Sélection de format vidéo/Terminaison de la ligne sérielle

Tab. 3

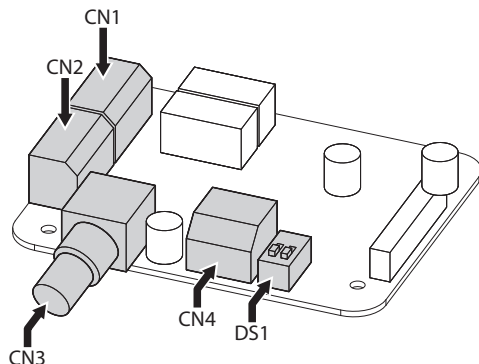


Fig. 10 Carte alarmes et relais.

### 6.4.2 Connexion des entrées de l'alarme

Dans le cas d'une alarme à contact propre, effectuer la connexion comme indiqué sur l'image.

Les contacts des alarmes sont présents sur le connecteur (CN1-CN2).

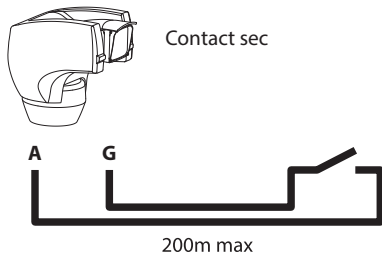


Fig. 11

Le contact sec peut être de type NO (normalement ouvert) ou encore NC (normalement clos).

Toutes les alarmes ont une portée d'environ 200m, réalisable avec un câble non blindé d'une section minimale de 0.25mm<sup>2</sup> (24 AWG).

### 6.4.3 Branchement des relais

**⚠** Les relais sont utilisables uniquement pour les basses tensions de travail (jusqu'à 30Vac ou 60Vdc) et avec un courant maximal de 1A. Utiliser des câbles de section adaptée à la charge à contrôler et comprise entre un minimum de 0.25mm<sup>2</sup> (24 AWG) et un maximum de 1.5mm<sup>2</sup> (16 AWG).

Les bornes du relais sont situées dans le relatif connecteur: Relais et alarmes (6.4.1 Description de la carte secondaire, page 15).

Les relais n'ont pas de polarité, il est donc indifférent d'utiliser la borne A ou B du même relais, pour des tensions alternatives ou continues.

BRANCHEMENT DES RELAIS	
Borne	Description
R1A	Relais 1, Borne A
R1B	Relais 1, Borne B
R2A	Relais 2, Borne A
R2B	Relais 2, Borne B

Tab. 4

**i** Pour d'autres renseignements se référer à le chapitre relatif (8.1.12.1 Menu Alarmes, page 40).

## 6.5 Branchement d'un ou plusieurs câble(s) vidéo



L'installation est du type CDS (Cable Distribution System). Ne pas la connecter à des circuits SELV.

### 6.5.1 Connexion de la vidéo principale

Le signal vidéo est présent sur les connecteurs J5 et J7 de la carte. Toujours utiliser un seul connecteur.

**Connecteur J5:** Raccorder l'écran et le câble central aux bornes GND et CVBS.

**Connecteur J7:** Brancher le câble coaxial au connecteur BNC (non fourni), puis le brancher au connecteur J7.

Les bornes acceptent des câbles d'une section comprise entre 1.5mm<sup>2</sup> (16 AWG) et 0,5mm<sup>2</sup> (30 AWG).

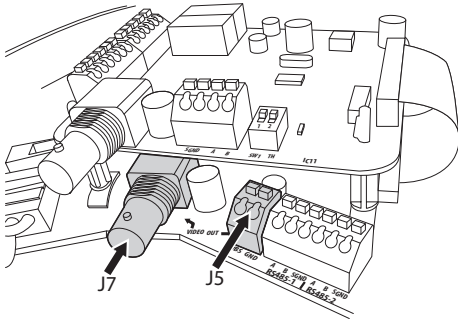


Fig. 12

### 6.5.2 Connexion de la vidéo secondaire

Brancher le câble coaxial au connecteur BNC (non fourni), puis le brancher au connecteur CN3.

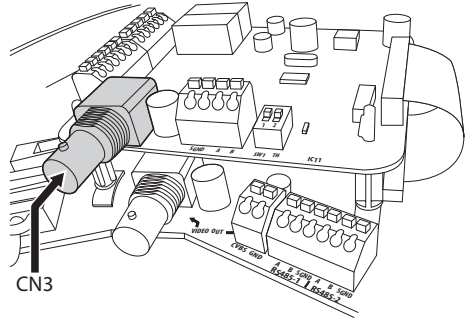


Fig. 13

### 6.5.3 Sortie des signaux vidéo (version avec double caméra)

Description des sorties vidéo:

- **Vidéo principale:** La sortie est utilisée pour la transmission du signal vidéo du module intégré (connecteurs J5, J7).
- **Vidéo secondaire:** La sortie est utilisée pour la transmission du signal vidéo du module thermique (connecteur CN3)

### 6.5.4 Sortie du Signal vidéo (version avec caméra thermique uniquement)

Description des sorties vidéo:

- **Vidéo principale:** Sur tous les modèles avec caméra thermique uniquement, la sortie vidéo principale est utilisée pour la transmission du signal vidéo de la caméra thermique (connecteurs J5, J7).
- **Vidéo secondaire:** Le signal vidéo secondaire n'est pas utilisé (connecteur CN3)

## 6.6 Connexion de la ligne de contrôle direct de la caméra thermique RS-485-3 (uniquement pour versions avec double caméra)

La caméra thermique peut être contrôlée de l'extérieur via la ligne sérielle (CN4, 8.1.16 Menu Caméra Thermique, page 42).

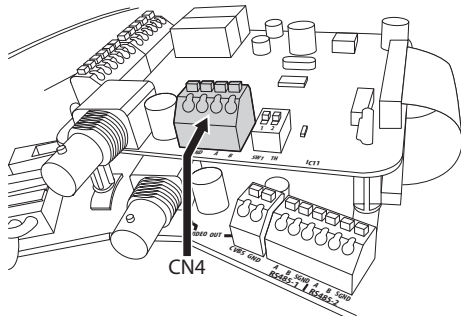


Fig. 14

## 6.7 Configuration format vidéo DS1 (uniquement pour versions avec caméra thermique)

Le dip-switch 1 sélectionne le type de format vidéo en sortie.

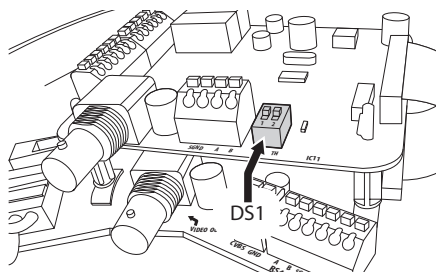


Fig. 15

CONFIGURATION DU VIDÉO ET DE LA TÉLÉMÉTRIE (DS1)			
Description	SW1	SW2	Configuration
Format du signal vidéo	On	-	Format vidéo PAL
	Off	-	Format vidéo NTSC

Tab. 5

## 6.8 Terminaison de la ligne sérielle RS-485-3 (DS1)

Le dip-switch 2 valide la terminaison (120 Ohms) de la ligne sérielle.

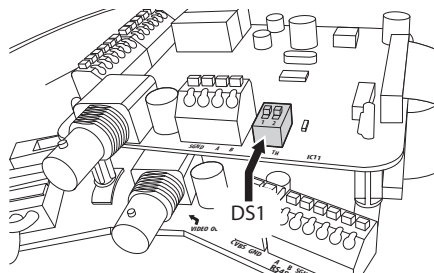


Fig. 16

CONFIGURATION DU VIDÉO ET DE LA TÉLÉMÉTRIE (DS1)			
Description	SW1	SW2	Configuration
Terminaison de la ligne sérielle	-	On	Terminaison RS-485-3 habilitée
	-	Off	Terminaison RS-485-3 non validée

Tab. 6

## 6.9 Branchement du système de lavage

**i** Pour de plus amples informations sur la configuration et l'utilisation, consulter le manuel de l'accessoire correspondant.

**i** Lorsque le système de lavage est activé, le relais 2 est utilisé exclusivement pour l'activation de la pompe (8.1.13 Menu Système De Lavage, page 41).

## 6.10 Fixation du corps supérieur

Orienter le connecteur autocentrant (01) de l'unité supérieure. Orienter la saillie latérale (02) dans le sens de vision frontale de la caméra. Positionner l'unité supérieure sur la base selon l'orientation représentée sur la figure.

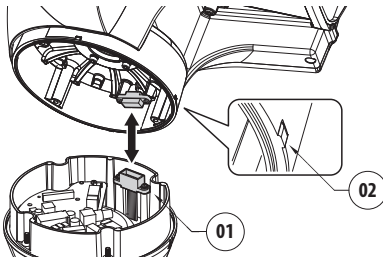


Fig. 17

Les saillies latérales sur la base et sur l'unité supérieure sont ainsi alignées dans la seule position possible.

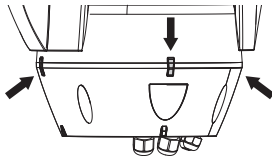


Fig. 18

Fixer l'unité supérieure (01) à la base (02) au moyen des vis de fixation (03), les rondelles dentées (04) et les rondelles plates (05). Contrôler la présence et l'état de la garniture de la base (06).

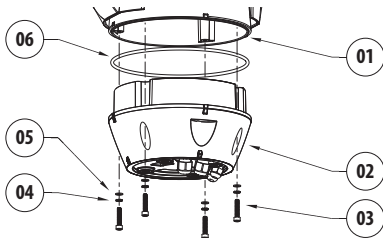


Fig. 19



**Appliquer sur les trous des vis un produit de freinage du filet du type Loctite 243°.**



**Faire attention pendant la fixation. Couple de serrage: 4Nm.**

## 6.11 Configuration du matériel

### 6.11.1 Ouverture du volet de configuration

Avant de mettre l'appareil sous tension, il est nécessaire de le configurer correctement au moyen des dip-switch installés derrière le panneau de configuration. Ouvrir le panneau de configuration en desserrant les vis comme illustré en figure.

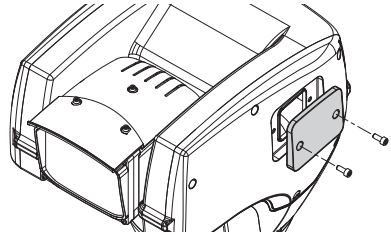


Fig. 20

### 6.11.2 Configuration mode contrôle réglages (DIP 1)

SW 1=ON: Affiche Configuration. Utiliser uniquement comme vérification de la configuration à la fin des réglages. Durant l'utilisation normale, contrôler que le levier est sur OFF (SW 1=OFF).

### 6.11.3 Configuration du baud rate

#### Pour configurer le baud rate agir sur le DIP 1.

Les switches 4, 3 et 2 permettent de sélectionner la vitesse de communication du dispositif.

CONFIGURATION DU BAUD RATE (DIP 1)						
Description	SW 1	SW 2	SW 3	SW 4	SW 5-6-7-8	Configuration
Sélection du baud rate	-	ON	ON	ON	-	38400 baud
	-	OFF	ON	ON	-	19200 baud
	-	ON	OFF	ON	-	9600 baud
	-	OFF	OFF	ON	-	4800 baud
	-	ON	ON	OFF	-	2400 baud
	-	OFF	ON	OFF	-	1200 baud
	-	ON	OFF	OFF	-	600 baud
	-	OFF	OFF	OFF	-	300 baud
Visualisation configurations	ON	-	-	-	-	Visualisation validée
	OFF	-	-	-	-	Visualisation non validée

Tab. 7

### 6.11.4 Configuration des lignes de communications sérieelles

#### Pour configurer les lignes de communication sérieelles agir sur le DIP 1.

Le produit prévoit les suivants lignes sérieelles de communication:

- RS-485: 2 lignes

La configuration des lignes sérieelles doit être effectuée en utilisant les dip-switches suivants:

- DIP 1: SW 5-SW 6

CONFIGURATION DES LIGNES DE COMMUNICATIONS SÉRIELLES (DIP 1)					
Description	SW 1-2-3-4	SW 5	SW 6	SW 7-8	Configuration (voir les chapitres relatives)
Lignes sérieelles	-	ON	ON	-	Ligne RS-485 TX/RX bidirectionnelle
	-	OFF	ON	-	Ligne RS-485-1 réception, ligne RS-485-2 répétition
	-	ON	OFF	-	Ligne RS-422 bidirectionnelle
	-	OFF	OFF	-	Ligne RS-485 monodirectionnelle

Tab. 8

### 6.11.4.1 Ligne RS-485 TX/RX bidirectionnelle

Ce configuration permet d'obtenir une communication bidirectionnelle half-duplex sur la ligne RS-485-1.

La ligne sérielle RS-485-2 n'est pas utilisée.

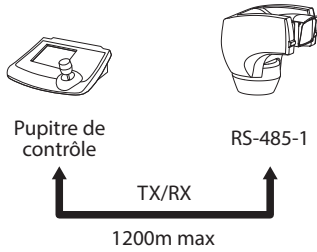


Fig. 21

### 6.11.4.2 Ligne RS-485-1 réception, ligne RS-485-2 répétition

Ce type de configuration permet de connecter plusieurs dispositifs en cascade. Le signal est régénéré par chaque unité et permet d'augmenter sensiblement la distance totale.

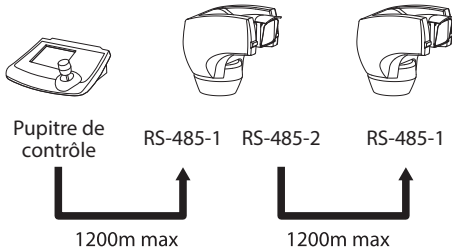


Fig. 22

**i** Cette configuration peut être utilisée exclusivement avec des protocoles monodirectionnels.

**i** Cette configuration ne permet pas d'effectuer la mise à jour du micrologiciel à distance.

### 6.11.4.3 Ligne RS-422 bidirectionnelle

Cette programmation permet la communication en full duplex selon le standard RS-422.

La ligne RS-485-1 est toujours en réception (RS-422-RX).

La ligne RS-485-2 est toujours en transmission (RS-422-TX).

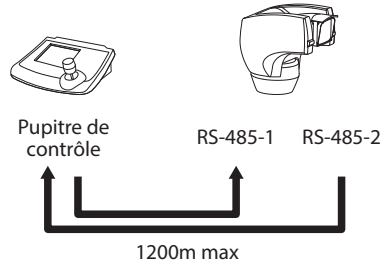


Fig. 23

### 6.11.4.4 Ligne RS-485 monodirectionnelle

La première ligne (RS485-1) fonctionne selon les programmations établies avec les dip-switches Adresse, Vitesse De Transmission et Protocole.

La ligne RS-485-2 n'est pas utilisée.

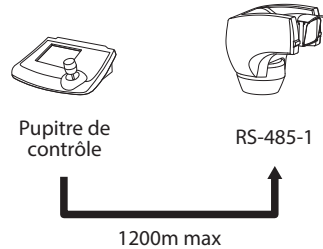


Fig. 24

**i** Cette configuration peut être utilisée exclusivement avec des protocoles monodirectionnels.

**i** Cette configuration ne permet pas d'effectuer la mise à jour du micrologiciel à distance.

## 6.11.5 Terminaison des lignes sérielles

**Pour configurer la terminaison des lignes sérielles agir sur le DIP 1.**

Sur la carte, il y a deux commutateurs dip, utilisés pour configurer la terminaison (120 Ohm) de la ligne série (Tab. 9, page 21).

Chaque périphérique en fin de ligne doit être terminée (bouclé) au moyen du dip-switch prévu pour éviter tout phénomène de réflexion et de déformation du signal.

TERMINAISON DES LIGNES SÉRIELLES (DIP 1)				
Description	SW 1-2-3-4-5-6	SW 7	SW 8	Configuration
Terminaison des lignes sérielles	-	-	ON	Ligne RS-485-2, terminaison validée
	-	-	OFF	Ligne RS-485-2, terminaison non validée
	-	ON	-	Ligne RS-485-1, terminaison validée
	-	OFF	-	Ligne RS-485-1, terminaison non validée

Tab. 9

## 6.11.6 Configuration du protocole



**Pour les versions avec encodeur vidéo numérique, il faut configurer le protocole sur NETWORK..**

**Pour configurer le protocole agir sur le DIP 3.**

La tourelle est contrôlable à travers de différents protocoles.

CONFIGURATION DU PROTOCOLE (DIP 3)				
SW 1	SW 2	SW 3	SW 4	Configuration
OFF	ON	OFF	OFF	AMERICAN DYNAMICS
OFF	OFF	ON	OFF	ERNITEC
OFF	ON	ON	OFF	NETWORK
ON	OFF	ON	OFF	PANASONIC
ON	OFF	OFF	OFF	PELCO D
OFF	OFF	OFF	OFF	VIDEOTEC MACRO

Tab. 10

## 6.11.7 Configuration de l'adresse

**Pour configurer le baud rate agir sur le DIP 2.**

Il est possible de configurer l'adresse de la tourelle: de 1 à 1023. La sélection de l'adresse s'effectue selon le code binaire, au moyen des dip-switches (A Annexe - Tableau des adresses, page 65).

## 7 Allumage



La procédure de préchauffage automatique (De-Ice) peut être activée chaque fois que le dispositif est mis en fonction à une température ambiante inférieure à 0°C. La procédure permet de garantir un fonctionnement correct du dispositif également à basse température. La durée varie entre 60 et 120 minutes en fonction des conditions.

Il suffit de brancher l'alimentation électrique pour allumer l'unité.

Débrancher l'alimentation électrique pour éteindre l'unité.

### 7.1 Premier allumage



**S'assurer que l'unité et les autres composants de l'installation soient fermés de façon à empêcher le contact avec les composants sous tension.**



**Ne pas stationner à proximité du dispositif sous tension. N'intervenir sur le dispositif qu'avec l'alimentation coupée.**

Lors de la première mise en service, toujours vérifier la configuration de l'appareil.

Sectionner l'alimentation, retirer le panneau de protection des dip-switches et placer le levier du dip-switch d'Affiche Configuration (DIP1, SW1) sur ON.

Alimenter le dispositif. Quelques secondes après il sera possible de vérifier sur l'écran la configuration effectuée.

Le contrôle terminé, éteindre l'appareil et abaisser le levier du dip-switch d'Affiche Configuration (DIP1, SW1).

Refermer le panneau et mettre l'appareil sous tension.

## 7.2 Liste des contrôles



Si l'une des commandes ne passe pas le test (ERR) contacter le service d'assistance. L'inscription "--" signifie que la tourelle n'est pas munie de l'option décrite.



Le contenu de ce chapitre ne s'applique pas aux versions avec encodeur vidéo numérique.

Durante la phase d'allumage, le dispositif affiche la liste des contrôles qu'il doit effectuer avant de passer au fonctionnement normal.

```

DEMARRAGE
Lecture parametres...OK
Recherche zero.....OK
Camera.....36x.OK
Sonde de temperature.OK
IR Phare.....--
Essuie-glace.....--
Carte Optionnelle....--
  
```

Fig. 25



## 8 Configuration

La configuration du produit peut être effectuée en utilisant un des instruments suivants:

- Interface OSM (On Screen Menu): Configuration à l'aide de la touche sur signal vidéo analogique
- Logiciel OSM: Configuration à l'aide d'une application installée sur le PC
- Interface web: Configuration à l'aide du navigateur

### 8.1 Interface OSM (On Screen Menu)

#### 8.1.1 Utilisation de l'OSM

Durant le fonctionnement normal de l'unité il est possible d'activer l'OSM pour sélectionner et configurer les fonctions avancées.. Pour plus d'informations se référer au manuel du pupitre utilisé et au chapitre relatif. (10.13 Commandes spéciales, page 52).

Quitter l'OSM avec Zoom Wide (Zoom-).

**i** Le menu se configure tout seul dynamiquement selon le modèle de tourelle.

#### 8.1.1.1 Utilisation du joystick

Toutes les opérations des menus s'effectuent au moyen du manche à balai.

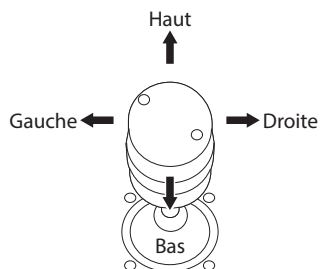


Fig. 26 Pan et tilt.

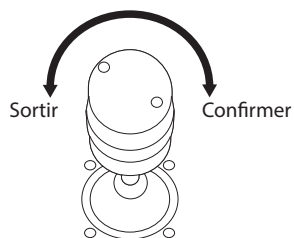


Fig. 27 Zoom Wide et Zoom Tele.

**i** En cas d'utilisation d'un pupitre de contrôle avec joystick à deux axes, utiliser les boutons de Zoom Wide et Zoom Tele pour exécuter les commandes Sortir et Confirmer.

## 8.1.2 Comment se déplacer dans le menu

Chaque page-écran du OSM présente une liste de paramètres ou de sous-menus pouvant être sélectionnés par l'opérateur. Pour faire défiler les différents paramètres déplacer le curseur en utilisant le joystick (haut et bas).

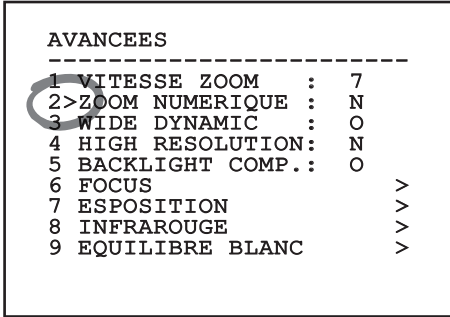


Fig. 28

Le symbole > en fin de ligne indique la présence d'un sous-menu spécifique. Pour l'activer, il suffit de confirmer la rubrique du menu. Pour sortir du sous-menu, utiliser la fonction Sortir (Zoom Wide).

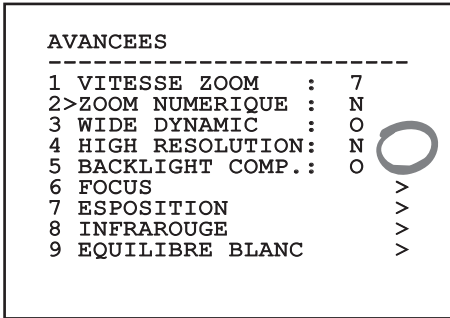


Fig. 29

## 8.1.3 Comment modifier les paramètres

Se déplacer au moyen du curseur sur le paramètre à modifier et confirmer. Le champ commence à clignoter pour indiquer la modification en cours. Pour afficher les options possibles déplacer le joystick (haut et bas)

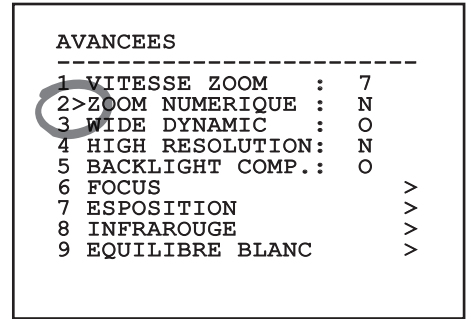


Fig. 30

Une fois l'option sélectionnée, confirmer.

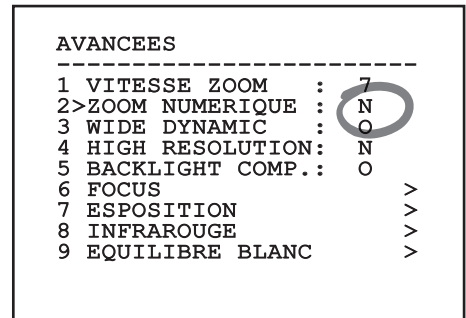


Fig. 31

Le champ cessera de clignoter en confirmant le choix effectué.

## 8.1.4 Comment modifier les champs numériques

Se déplacer au moyen du curseur sur le paramètre à modifier et confirmer.

```
MODIFIER PRESET
-----
1 NR.      :      1
2 ON       :      N
3>PAN     :+   0.00
4 TILT    :+   0.00
5 ZOOM     :      0
6 FOCUS   :  4096
7 VIT.    :  100.0
8 PAUSE   :      1
9 TEXTE   :Text 001
```

Fig. 32

Le premier chiffre du champ numérique en cours de modification clignote et la dernière ligne de l'écran indique les limites d'acceptation du champ. Se déplacer sur le champ (gauche et droite) et modifier le signe ou la valeur numérique (haut et bas).

```
MODIFIER PRESET
-----
1 NR.      :      1
2 ON       :      N
3>PAN     :+000.00
4 TILT    :+  0.00
5 ZOOM     :      0
6 FOCUS   :  4096
7 VIT.    :  100.0
8 PAUSE   :      1
9 TEXTE   :Text 001
min:-180.00 max:+179.99
```

Fig. 33

Une fois le résultat désiré obtenu, confirmer. Le curseur retournera vers la droite et la valeur modifiée cessera de clignoter. Si l'on essaye de saisir une valeur non prévue le champ sera forcé à la valeur minimale ou maximale autorisée.

## 8.1.5 Comment modifier les textes

Se déplacer au moyen du curseur sur le paramètre à modifier et confirmer.

```
MODIFICATION ZONE
-----
1 NR      :      1
2 START  :+   0.00
3 STOP   :+   0.00
4>TEXTE  :TXT AREA1
```

Fig. 34

La page-écran de modification du texte s'affiche. Le symbole flèche se positionne sous le caractère modifiable tandis que le curseur > se positionne à gauche du caractère sélectionné.

```
EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
>A B C D E F G ERASE
  H I J K L M N SAVE
  O P Q R S T U EXIT
  V W X Y Z 0 1 abc
  2 3 4 5 6 7 8
  9 : ; . / ? !
  \ + - * / = "
  < > SPACE ← →
```

Fig. 35

Il est possible d'utiliser le joystick pour naviguer à l'intérieur du menu.

```

EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
A B C D E F G   ERASE
H I J K L M N   SAVE
O P Q>R S T U   EXIT
V W X Y Z 0 1   abc
2 3 4 5 6 7 8
9 : ; . / ? !
\ + - * / = "
< > SPACE ← →
  
```

Fig. 36

La commande Confirmer (Zoom Tele) permet d'insérer le caractère désiré.

```

EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
A B C D E F G   ERASE
H I J K L M N   SAVE
O P Q>R S T U   EXIT
V W X Y Z 0 1   abc
2 3 4 5 6 7 8
9 : ; . / ? !
\ + - * / = "
< > SPACE ← →
  
```

Fig. 37

Utiliser:

- **ERASE**: Supprimer toute la chaîne de texte.
- **SAVE**: Sauvegarder le nouveau texte avant de quitter le menu.
- **EXIT**: Quitter le menu.
- **abc**: Affiche les caractères en minuscule.

```

EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
A B C D E F G   >ERASE
H I J K L M N   SAVE
O P Q R S T U   EXIT
V W X Y Z 0 1   abc
2 3 4 5 6 7 8
9 : ; . / ? !
\ + - * / = "
< > SPACE ← →
  
```

Fig. 38

Pour sortir du menu, il est également possible d'utiliser la commande Zoom Wide.

## 8.1.6 Configuration par OSM

Les pages-écrans qui servent à configurer le produit sont illustrées ci-après.

### 8.1.7 Menu Principal

Le menu principal permet d'accéder à la configuration du dispositif.

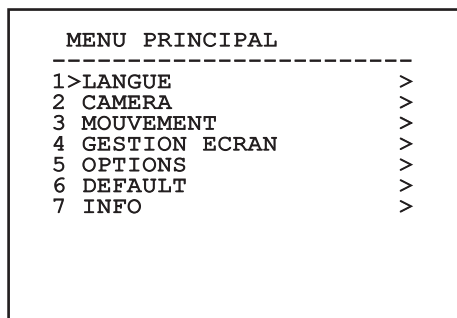


Fig. 39

### 8.1.8 Menu Choix Langue

Le menu permet de choisir la langue désirée.

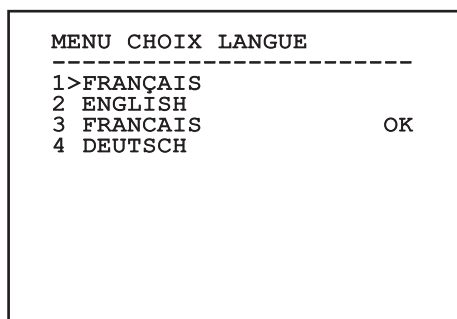


Fig. 40

### 8.1.9 Menu caméra

1. **Configuration:** Définit l'une des configurations prédéfinies pour le module SONY:
  - **Standard:** Configure le mode de fonctionnement standard de la caméra.
  - **Low Light:** Configure le mode de fonctionnement conçu pour les environnements à faible luminosité.
  - **Far Mode:** Configure le mode de fonctionnement conçu pour les zones de grandes dimensions. Active le zoom proportionnel et le zoom numérique.
  - **Custom:** Signale que les paramètres de la caméra ont été sélectionnés manuellement par l'utilisateur.
2. **Titrage Des Zones:** Permet d'accéder au sous-menu pour la gestion du titrage des zones.
3. **Masquage:** Permet d'accéder au sous-menu pour la gestion du masquage dynamique.
4. **Avancées:** Permet d'accéder au sous-menu pour la configuration des paramètres avancés du module SONY.

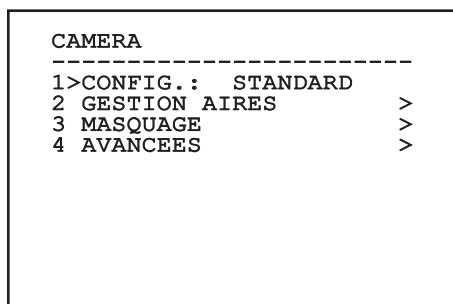


Fig. 41

### 8.1.9.1 Menu Titrage Des Zones

Cette fonction permet de configurer un maximum de huit zones (de dimensions variables) et éventuellement de les titrer.

1. **Activation:** Valide l'affichage du message associé à la zone atteinte.
2. **Modifier Zones:** Permet d'accéder au sous-menu pour la configuration des paramètres des zones.

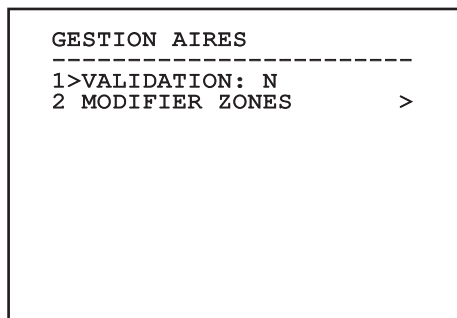


Fig. 42

### 8.1.9.2 Menu Titrage Des Zones (Modifier Zones)

L'accès au menu permet de configurer les paramètres suivants:

1. **Numéro:** Sélectionne la zone à modifier.
2. **Start:** Configure la position initiale de la zone.
3. **Stop:** Configure la position finale de la zone.
4. **Texte:** Modifie le texte qui est affiché quand on se déplace à l'intérieur de l'aire.

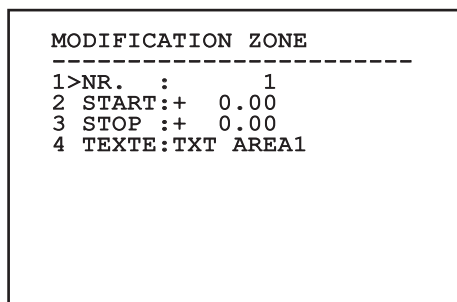


Fig. 43

**Exemple:** Pour activer le titrage de la zone 1 quand le dispositif se trouve entre +15° et +45°, procéder comme suit:

- Set 1 as the value of parameter Nr under the Edit Area menu.
- Configurer 1 comme valeur du paramètre Nr du menu Modifier Zones.
- Configurer +15.00 comme valeur du paramètre Start du menu Modifier Zones.
- Configurer +45.00 comme valeur du paramètre Stop du menu Modifier Zones.
- Si nécessaire, modifier le texte affiché en sélectionnant la rubrique Texte du menu Modifier Zone.

**i** Si les valeurs de Start et Stop du menu Modifier zone sont à zéro, l'affichage du texte est désactivé. En cas de superposition de plusieurs zones, la zone portant le nombre le plus haut prévaut.

**i** Pour la définition de les aires suivre le sens des aiguilles d'une montre comme illustré en figure.

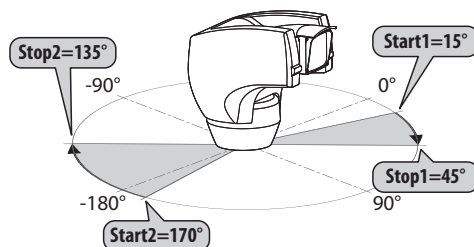


Fig. 44

**i** Le nom et la position standards des aires de la tourelle se réfèrent aux quatre points cardinaux. La position du NORD se modifie à l'aide du paramètre Offset Pan du menu mouvement (8.1.10 Menu Mouvement, page 35).

### 8.1.9.3 Menu Masquage

Le masquage dynamique permet de créer un maximum de 24 masques de façon à obscurcir des zones particulières définies par l'utilisateur.

Les masques sont définis dans l'espace et tiennent compte de la position horizontale et verticale et de la profondeur du zoom au moment de la configuration.

L'unité maintient automatiquement la position et la dimension du masque en fonction de la zone affichée.

Un maximum de 8 masques peut être affiché simultanément.

Si le dispositif est utilisé à sa vitesse maximale, les temps de mise à jour du signal vidéo deviennent critiques et il est nécessaire de créer des masques plus grands que l'objet afin de cacher ce dernier plus longtemps durant le passage et d'éviter tout risque de visualisation.

**i** En vue d'un fonctionnement parfait, la position en tilt du masque doit toujours être comprise entre -70 et +70 degrés et la dimension du masque doit être le double de celle de l'objet (en hauteur et en largeur).

Il permet de configurer les paramètres suivants :

1. **Couleur Masque:** Permet de sélectionner la couleur des masques.
2. **Modifier Masques:** Permet d'accéder au sous-menu Modifier Masques et de configurer les paramètres de masquage dynamique.

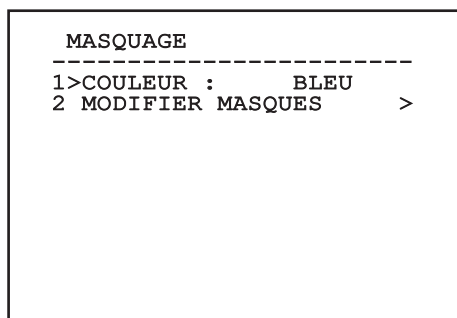


Fig. 45

### 8.1.9.4 Menu Masquage (Modifier Masques)

Il permet de configurer les paramètres suivants :

1. **Numéro Masque:** Permet de sélectionner le masque à modifier.
2. **Activer Masque:** Active ou désactive le masque sélectionné.
3. **Modifier Masque:** Permet de créer ou de modifier un masque.

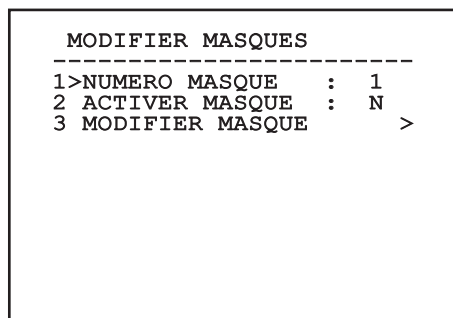


Fig. 46

La sélection de l'option Modifier Masque du menu permet de valider la possibilité de configurer de nouvelles valeurs du masque sélectionné.

### 8.1.9.5 Comment créer un nouveau masque

Sélectionner un masque non validé sur le menu Modifier Masques rubrique Masque Numéro. Pour le modifier, sélectionner la rubrique Modifier Masque ( Fig. 46, page 29).

L'exemple suivant décrit le masquage d'une fleur.

- Enfoncer le bouton Iris Close pour passer du mode Masquage au mode Mouvement Caméra.

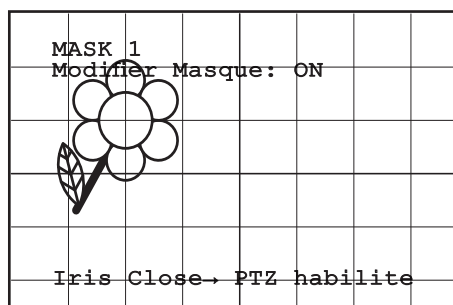


Fig. 47

- Au moyen du joystick du pupitre, effectuer un mouvement de l'unité et utiliser si nécessaire le zoom pour centrer la fleur sur l'écran.

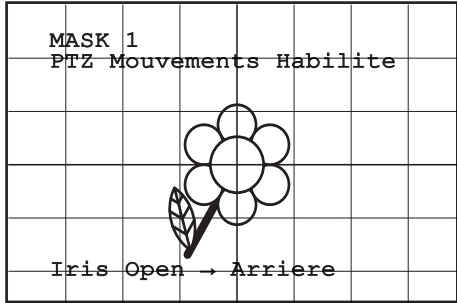


Fig. 48

- Une fois le résultat désiré obtenu, enfoncer le bouton Iris Open.

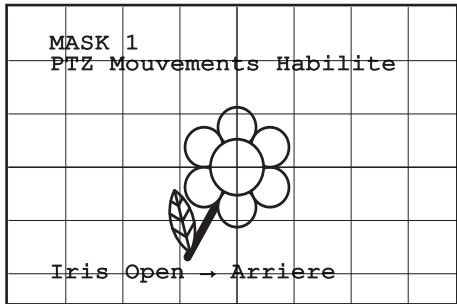


Fig. 49

- Un petit rectangle s'affiche. Au moyen du joystick (Pan et Tilt), agrandir le rectangle jusqu'à couvrir toute la fleur.

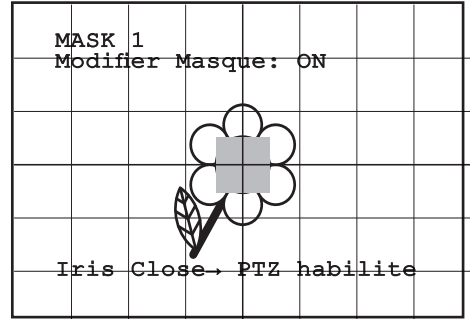


Fig. 50

- Une fois le résultat désiré obtenu, confirmer en tournant le zoom sur télé.

### 8.1.9.6 Comment modifier un masque

Sélectionner un masque validé sur le menu Modifier Masques, rubrique Masque Numéro (Fig. 46, page 29). Pour le modifier, sélectionner la rubrique Modifier Masque.

- Au moyen du joystick (Pan et Tilt), agrandir ou réduire le rectangle jusqu'à obtenir l'effet désiré.

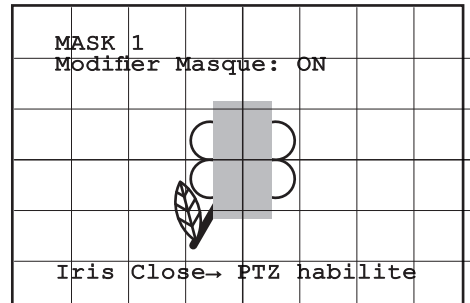


Fig. 51

- Confirmer en tournant le zoom sur télé.



### 8.1.9.7 Menu Configurations Avancées

This menu is used to configure the SONY module.

1. **Zoom:** Permet d'accéder au sous-menu Zoom.

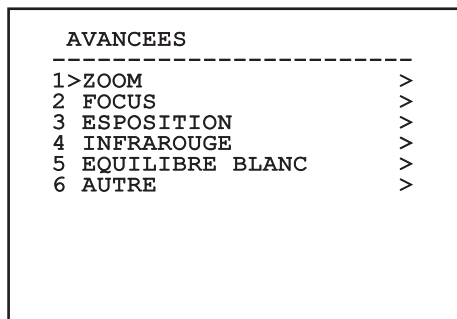


Fig. 52

### 8.1.9.8 Menu Configurations Avancées (Zoom)

1. **Vitesse Zoom:** Configure la vitesse du zoom. Les valeurs de vitesse sont comprises entre 0 (vitesse minimale) et 7 (vitesse maximale).
2. **Zoom Numérique:** Valide le zoom numérique.

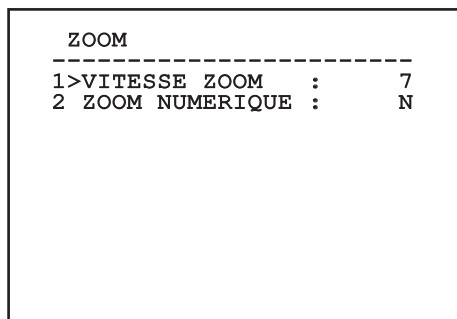


Fig. 53

### 8.1.9.9 Menu Configurations Avancées (Focus)

Il permet de configurer les paramètres suivants :

1. **Vitesse Focus:** Configure la vitesse du Focus. Les valeurs de vitesse sont comprises entre 0 (vitesse minimale) et 7 (vitesse maximale).
2. **Autofocus:** Active ou désactive l'autofocus. Activé, permet de rappeler automatiquement l'Autofocus à chaque positionnement ou mouvement du zoom, en fonction du type de fonctionnement sélectionné.
3. **Type Autofocus:** Configure le type d'Autofocus. Valeurs possibles:
  - **Normal:** L'autofocus est toujours activé.
  - **Intervalle:** Rappel de la fonction autofocus à intervalles. Le rappel est fixé toutes les 5 secondes.
  - **Trigger:** Rappel de l'autofocus à chaque mouvement PTZ. Solution conseillée.
4. **Sensibilité:** Configure le type de sensibilité. Valeurs possibles:
  - **Normal:** Mise au point à la vitesse maximale. Solution conseillée.
  - **Basse:** Mise au point ralentie. Utile en cas de faible luminosité ambiante car elle augmente la stabilité de l'image.

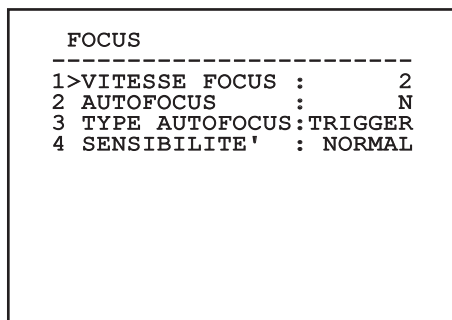


Fig. 54

### 8.1.9.10 Menu Configurations Avancées (Exposition)

Il permet de configurer les paramètres suivants :

- 1-5. **Mode:** Configure le type de contrôle de l'exposition Automatique, Manuelle, Shutter, Iris et Bright.
6. **Auto Slowshutter:** Activée, augmente automatiquement le temps d'exposition pour améliorer le fonctionnement nocturne.
- 7-8. **Compensation, Valeur Compensation:** Configure la compensation de l'exposition.
9. **Compensation Backlight:** Valide la fonction Compensation Backlight. Permet de mieux voir d'éventuelles zones obscures sur l'image.

Le mode automatique permet également d'activer la compensation Backlight.

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.

Le mode de gestion de l'exposition sélectionnée est associée à tous les preset.

La configuration conseillé est l'Automatique.

E S P O S I T I O N	
-----	
1>MODE :	AUTO
6 AUTO SLOW SHUTTER :	O
7 COMPENSATION :	N
8 COMPENSATION VAL. :	7
9 BACKLIGHT COMP. :	N

Fig. 55

Le tableau suivant indique la correspondance entre les valeurs introduites et leur effet sur le système optique du module SONY.


CORRESPONDANCE EFFET/VALEURS SUR L'OPTIQUE DU MODULE SONY					
Valeur	Shutter		Iris	Gain	Compensation exposition
	NTSC	PAL			
0	1/1	1/1	Fermé	-3db	-10,5db
1	1/2	1/2	F28	0db	-9db
2	1/4	1/3	F22	2db	-7,5db
3	1/8	1/6	F19	4db	-6db
4	1/15	1/12	F16	6db	-4,5db
5	1/30	1/25	F14	8db	-3db
6	1/60	1/50	F11	10db	-1,5db
7	1/90	1/75	F9.6	12db	0db
8	1/100	1/100	F5	14db	1,5db
9	1/125	1/120	F6.8	16db	3db
10	1/180	1/150	F5.6	18db	4,5db
11	1/250	1/215	F4.8	20db	6db
12	1/350	1/300	F4	22db	7,5db
13	1/500	1/425	F3.4	24db	9db
14	1/725	1/600	F2.8	26db	10,5db
15	1/1000	1/1000	F2.4	28db	
16	1/1500	1/1250	F2		
17	1/2000	1/1750	F1.6		
18	1/3000	1/2500			
19	1/4000	1/3500			
20	1/6000	1/6000			
21	1/10000	1/10000			

Tab. 11

### 8.1.9.11 Menu Configurations Avancées (Infrarouge)

Il permet de configurer les paramètres suivants :

1. **Mode IR:** Si réglé sur OFF, force le mode jour en continu (la mise en fonction du projecteur, si prévue, s'effectue via interrupteur crépusculaire ou commande du pupitre). Si réglé sur ON, force le mode nocturne en continu. Si réglé sur Auto active la commutation automatique de la caméra.
2. **Seuil Nuit:** Il configure le seuil de relèvement des conditions de lumière pour la commutation en modalité nocturne. Aux valeurs inférieures correspondent des niveaux de luminosité plus bas.
3. **Retard Nuit:** Il configure le temps de relèvement des conditions d'obscurité, exprimé en secondes, avant de passer en modalité nocturne.
4. **Seuil Jour:** Il configure le seuil de relèvement des conditions de lumière pour la commutation en modalité diurne. Aux valeurs inférieures correspondent des niveaux de luminosité plus bas.
5. **Retard Jour:** Il configure le temps de relèvement des conditions de lumière, exprimé en secondes, avant de passer en modalité diurne.
6. **Cut Off Filter:** Si elle est configurée sur S, la tourelle fonctionne normalement. S'il est configuré sur N, la caméra ne commute pas entre les modes jour et nuit mais fonctionne uniquement en mode jour. S'il est configuré sur N, le projecteur, lorsqu'il est présent, est allumé et éteint selon les configurations de la mention « Modo IR » [Mode IR].

 Pour éviter de fausses commutations nous conseillons de choisir les valeurs de seuil et de retard de commutation diurne plus élevées.

INFRA ROUGE		
-----		
1>MODE IR	:	AUTO
2 SEUIL NUIT	:	5
3 RETARD NUIT	:	5
4 SEUIL JOUR	:	20
5 RETARD JOUR	:	30
6 CUT OFF FILTER:	:	0

Fig. 56

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.



**La modalité de commutation Day/Night automatique du module est vivement déconseillée quand la tourelle est sujette à des variations soudaines de lumières durant la période nocturne, par exemple durant l'exécution d'un parcours de patrol ou à cause de l'allumage des dispositifs auxiliaires d'éclairage. Ces situations pourraient provoquer de nombreuses commutations indésirables en compromettant ainsi le fonctionnement du module lui-même.**

### 8.1.9.12 Menu Configurations Avancées (Équilibre Blanc)

Il permet de configurer les paramètres suivants :

1. **Mode:** Configure le type de contrôle d'équilibre des blancs. Valeurs possibles:
  - **Automatique:** Impose l'équilibrage automatique du blanc. Solution conseillée.
  - **Manuel:** Valide la configuration manuelle des gains de rouge et de bleu.
  - **Outdoor:** Configure des valeurs fixes de gain de rouge et de bleu pour l'extérieur.
  - **Indoor:** Configure des valeurs fixes de gain de rouge et de bleu pour l'intérieur.
  - **ATW:** Valide l'Auto Tracing White Balance.
2. **Valeur Rouge:** Configure la valeur de gain du rouge.

EQUILIBRE BLANC		
-----		
1 >MODE	:	MANUELLE
2 VAL. ROUGE:		0
3 VAL. BLEUE:		0

Fig. 57

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.

### 8.1.9.13 Menu Configurations Avancées (Autre)

1. **Netteté:** Configure la valeur de netteté de l'image.
2. **Haute Resolution:** Valide la fonction Haute Resolution. Le signal vidéo en sortie a une résolution plus élevée.
3. **Wide Dynamic:** Valide la fonction Wide Dynamic. Améliore la vision quand l'aire filmée a des zones beaucoup plus lumineuses que d'autres.
4. **Stabilisateur:** Habilite la fonction de stabilisation électronique de l'image.
5. **Balayage Progressive:** Habilite la fonction de Balayage Progr. Permet d'obtenir une image plus stable quand la tourelle est branchée à un serveur vidéo.
6. **Noise Reduction:** Programme le niveau de réduction du bruit. En variant le paramètre en fonction des conditions environnementales, il est possible d'obtenir une image plus contrastée.

AUTRE		
-----		
1 NETTETE	:	6
2 HAUTE RESOLUTION:		N
3 WIDE DYNAMIC	:	OFF
4 STABILISATEUR	:	N
5 BALAYAGE PROGR.	:	N
6 NOISE REDUCTION	:	2

Fig. 58

## 8.1.10 Menu Mouvement

1. **Configuration:** Configure l'une des configurations prédéfinies de la tourelle.
  - **Standard:** Configure les vitesses standard de mouvement.
2. **Offset Pan:** La tourelle a une position de 0° définie mécaniquement. La fonction Offset Pan permet de définir une position différente de 0° à l'aide du logiciel.
3. **Contrôle Manuel:** Permet d'accéder aux sous-menus de gestion des paramètres associés aux mouvements manuels du dispositif.
4. **Preset:** Permet d'accéder aux sous-menus de modification des valeurs de Preset.
5. **Patrol:** Permet d'accéder aux sous-menus de modification des valeurs de Patrol.
6. **Autopan:** Permet d'accéder aux sous-menus de modification des valeurs de l'Autopan.
7. **Rappel Mouvements:** Permet d'accéder au sous-menu de gestion du rappel automatique des mouvements.
8. **Avancées:** Permet d'accéder au sous-menu pour la configuration des paramètres avancés.

```

MOUVEMENT
-----
1>CONFIG.      : STANDARD
2 OFFSET PAN:  + 0.00
3 CONTROLE MANUEL  >
4 PRESET          >
5 PATROL          >
6 AUTOPAN         >
7 RAPPEL MOUVEMENTS >
8 AVANCEES       >
  
```

Fig. 59

### 8.1.10.1 Menu Contrôle Manuel

1. **Vitesse Maximale:** Configure la vitesse manuelle maximale.
2. **Mode Fast:** Active le mode Fast. L'activation de cette option permet de déplacer rapidement la tourelle en déplaçant le joystick en fin de course.
3. **Vitesse avec Zoom:** Active l'option Vitesse avec Zoom. L'activation de ce paramètre réduit automatiquement la vitesse de Pan et Tilt en fonction du facteur de Zoom.
4. **Facteur Tilt:** Configure le facteur de réduction de la vitesse manuelle de l'axe tilt.
5. **Autoflip:** Active la fonction autoflip (c'est-à-dire tourne automatiquement la tourelle de 180° quand le tilt arrive en fin de course) pour faciliter la poursuite d'objets le long de couloirs ou de rues.
6. **Limites Mouvement:** Accès au menu Limites.

```

Contrôle Manuel
-----
1>VITESSE MAX      :100.0
2 MODE FAST       :    O
3 VIT. AVEC ZOOM  :    N
4 FACTEUR TILT    :    2
5 AUTOFLIP        :    O
6 LIMITES MOUVEMENT >
  
```

Fig. 60

### 8.1.10.2 Menu Contrôle Manuel (Limites)

Il permet de configurer les paramètres suivants :

1. **Limites Pan:** Valide les limites de Pan.
2. **Pan Début:** Configure la limite initiale de Pan.
3. **Pan Fin:** Configure la limite finale de Pan.
4. **Limites Tilt:** Configure la limite initiale de Tilt.
5. **Tilt Début:** Configure la limite initiale de Tilt.
6. **Tilt Fin:** Configure la limite finale de Tilt.

#### LIMITES

```

-----
1>LIMITES PAN      :      N
2 PAN DEBUT       : +  0.00
3 PAN FIN         : +  0.00
4 LIMITES TILT    :      N
5 TILT DEBUT      : +  0.00
6 TILT FIN        : +  0.00
  
```

Fig. 61

### 8.1.10.3 Menu Preset

1. **Modifier Preset:** Pour accéder au menu Modifier Preset.
2. **Utilités Preset:** Pour accéder au menu Utilités Preset.

#### PRESET

```

-----
1>MODIFIER PRESET  >
2 UTILITES PRESET  >
  
```

Fig. 62

### 8.1.10.4 Menu Preset (Modifier Preset)

Il permet de configurer les paramètres suivants :

1. **Numéro:** Numéro du Preset devant être modifié.
2. **Activation:** Activation du preset.
3. **Pan:** Position de pan exprimée en degrés.
4. **Tilt:** Position de tilt exprimée en degrés.
5. **Zoom:** Position du Zoom.
6. **Focus:** Position du focus diurne et nocturne.
7. **Vitesse:** Vitesse d'atteinte de la position si le preset est rappelé par la fonction Patrol et Scan.
8. **Pause:** Configure l'attente en secondes avant le début du mouvement suivant en Patrol.
9. **Texte:** Texte affiché à l'atteinte de la position de preset.

#### MODIFIER PRESET

```

-----
1>NR.   :      1
2 ON    :      N
3 PAN   :+  0.00
4 TILT  :+  0.00
5 ZOOM  :      0
6 FOCUS:  4096 - 5600
7 VIT.  :  100.0
8 PAUSE:      1
9 TEXTE: Text 001
  
```

Fig. 63

Le menu permet de mémoriser directement les preset en envoyant la commande Iris Close qui active les mouvements de la tourelle.

### 8.1.10.5 Menu Preset (Utilités Preset)

Il permet de configurer les paramètres suivants :

1. **A.Focus jour:** Active l'utilisation de l'autofocus durant le rappel des preset en mode jour. Pour garantir rapidité et précision de la mise au point de l'image, désactiver la mise au point automatique.
2. **A.Focus nuit:** Active l'utilisation de l'autofocus durant le rappel des preset en mode nuit. Il est conseillé d'activer la mise au point automatique quand la tourelle est équipée de phares infrarouges car le point focal varie entre la lumière visible et la lumière infrarouge.
3. **Vitesse Scan:** Vitesse utilisée comme référence en cas de rappel d'une nouvelle position de preset avec la fonction Scan.
4. **Vitesse Par Défaut:** Modifie la vitesse par défaut des Preset. Cette valeur est utilisée par la fonction Configurer Vitesse? pour assigner à tous les Preset la même vitesse.
5. **Pause Par Défaut:** Modifie la pause par défaut des Preset. Cette valeur est utilisée par la fonction Configurer Pause? pour assigner à tous les Preset la même pause.
6. **Configurer Vitesse:** Assigne à tous les Preset la vitesse par défaut.
7. **Configurer Pause:** Assigne à tous les Preset la pause par défaut.

```

UTILITES PRESET
-----
1>AUTOFOCUS JOUR :      N
2 AUTOFOCUS NUIT  :      O
3 VITESSE SCAN   : 200.0
4 VIT. DEFAULT   : 100.0
5 PAUSE DEFAULT  :      3
6 CONFIGURER VITESSE?
7 CONFIGURER PAUSE?
  
```

Fig. 64

### 8.1.10.6 Menu Patrol

1. **Premier Preset:** Premier preset de la séquence de Patrol.
2. **Dernier Preset:** Le dernier Preset de la séquence de Patrol.
3. **Mode Random:** Active l'exécution en mode aléatoire. La séquence est constamment recalculée.

```

PATROL
-----
1>PREMIER PRESET:      1
2 DERNIER PRESET: 250
3 MODE RANDOM   :      N
  
```

Fig. 65

### 8.1.10.7 Menu Autopan

1. **Preset Aller:** Configure la position initiale de l'Autopan.
2. **Preset Retour:** Configure la position finale de l'Autopan.
3. **Vitesse Aller:** Configure la vitesse d'aller de l'Autopan.
4. **Vitesse Retour:** Configure la vitesse de retour de l'Autopan.

```

AUTOPAN
-----
1>PRESET ALLER  :      1
2 PRESET RETOUR :      2
3 VITESSE ALLER : 20.0
4 VITESSE RETOUR:100.0
  
```

Fig. 66

### 8.1.10.8 Menu Rappel Mouvements

Il est possible de configurer le dispositif de façon à ce que, après une certaine période d'inactivité, il effectue automatiquement une fonction de mouvement choisie par l'opérateur.

1. **Type Mouvement:** Type de mouvement à rappeler (None, Home, Autopan, Patrol, Tour 1, Tour 2, Tour 3).
2. **Retard Mouvement:** Période d'inactivité du Joystick, en secondes.

```

RAPPEL MOUVEMENTS
-----
1>TYPE MOUVEMENT :   NONE
2 RET. MOUVEMENT :   60
  
```

Fig. 67

### 8.1.10.9 Menu Avancées

1. **Contrôle Statique:** Active le contrôle de la position uniquement si la tourelle est à l'arrêt
2. **Contrôle Dynamique:** Active le contrôle de la position uniquement si la tourelle est en mouvement.
3. **Homing Cyclique:** Si différent de zéro, impose l'exécution d'une nouvelle procédure de homing après le nombre d'heures spécifié.
4. **Mode Économique:** Réduit le couple des moteurs quand la tourelle est à l'arrêt. Ne pas activer en présence de vent fort ou de vibrations intenses.

```

AVANCEES
-----
1>CONTROLE STATIQUE :  O
2 CONTROLE DYNAMIQUE:  O
3 AUTOGUIDAGE CYCLIQUE
:  0
4 MODE ECONOMIQUE    :  O
  
```

Fig. 68



### 8.1.11 Menu Affichages

1. **Position PTZ:** Si différente de OFF, permet de sélectionner le mode d'affichage des positions de Pan, Tilt et Zoom. Il est possible de sélectionner un affichage temporel (1 S, 3 S et 5 S) ou constant (CONST).
2. **Nom Preset:** Si différente de OFF, permet de sélectionner le mode d'affichage du texte associé à la dernière position de preset atteinte. Il est possible de sélectionner un affichage temporel (1 S, 3 S et 5 S) ou constant (CONST).
3. **Nom Zones:** Si différente de OFF, permet de sélectionner le mode d'affichage des textes associés aux zones activées. Il est possible de sélectionner un affichage temporel (1 S, 3 S et 5 S) ou constant (CONST).
4. **ID Tourelle:** Si différente de OFF, affiche l'ID de la tourelle.
5. **Commandes Reçues:** Si différente de OFF, permet de sélectionner le mode d'affichage des commandes sérielles reçues. Il est possible de sélectionner un affichage temporel (1 S, 3 S et 5 S) ou constant (CONST).
6. **Delta Horizontal:** Déplace horizontalement les textes des menus en autorisant un centrage optimisé de ces derniers.

7. **Delta Vertical:** Déplace verticalement les textes des menus en autorisant un centrage optimisé de ces derniers.

AFFICHAGES		
-----		
1>POSITION PTZ	:	1 S
2 NOM PRESET	:	3 S
3 NOM ZONES	:	OFF
4 ID TOURELLE	:	CONST
5 COMMANDES RECUES	:	CONST
6 DELTA HORIZONTAL	:	3
7 DELTA VERTICAL	:	3

Fig. 69

### 8.1.12 Menu Options

1. **Montage Plafond:** Ce mode entraîne l'inversion de l'image et des commandes de mouvement.
2. **Alarmes:** Permet d'accéder au menu Alarmes.
3. **Système De Lavage:** Permet d'accéder au menu Système de Lavage.

OPTIONS		
-----		
1>MONTAGE PLAFOND:		N
2 ALARMES		>
3 SYSTEME DE LAVAGE		>

Fig. 70

### 8.1.12.1 Menu Alarmes

- 1-5. **Alarme 1-5:** Permettent d'accéder aux menus où il est possible de programmer les paramètres des Alarmes de 1 à 5.
6. **Etat des Alarmes:** Permet d'accéder au menu État des Alarmes.

```

ALARMES
-----
1>ALARME 1          >
2 ALARME 2          >
3 ALARME 3          >
4 ALARME 4          >
5 ALARME 5          >
6 ETAT ALARMES     >
  
```

Fig. 71

**i** Si le projecteur IR est monté, l'alarme 5 est réservée à l'interrupteur crépusculaire externe, c'est pourquoi l'alarme 5 n'apparaît pas sur la vidéo.

A partir du menu Alarmes, il est possible d'accéder à un des menus (Alarme 1-5) dans lequel on peut modifier les paramètres des alarmes.

A partir de ces menus, il est possible de programmer les valeurs suivantes:

1. **Type:** Programme le type de contact: normalement clos (N.C.) ou normalement ouvert (N.O.)
2. **Action:** Le type d'action que l'unité effectue quand l'alarme s'actionne (Autopan, Patrol, Relais 1, Relais 2, Scan, Tour 1, Tour 2, Tour 3, Washer, Wiper). Si on sélectionne la rubrique Off l'alarme n'est plus validée.
3. **Numéro:** La présélection à atteindre quand le type d'action de l'alarme est Scan.
4. **Texte:** L'inscription affichée quand l'alarme est validée.

```

ALARME 1
-----
1>TYPE :N.C.
2 ACT. :SCAN
3 NR.  : 1
4 TEXTE:ALARM 1
  
```

Fig. 72

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.

À partir du menu Alarmes, il est possible d'accéder au menu État des Alarmes où est affiché l'état de l'entrée des alarmes (CLOSED contact clos, OPEN contact ouvert).

```

ETAT ALARMES
-----
ALARME 1          CLOSED
ALARME 2          OPEN
ALLARME 3        CLOSED
ALLARME 4        CLOSED
ALLARME 5        CLOSED
  
```

Fig. 73

### 8.1.13 Menu Système De Lavage

La tourelle offre la possibilité d'utiliser un essuie-glace et d'actionner une pompe pour le nettoyage de la glace.

Pour configurer le système de lavage, positionner l'objectif de la caméra devant la buse du système de lavage.

Sauvegarder une présélection (XY) pour cette position, qui sera rappelée par la tourelle lors de la validation de la fonction Washer.

Configurer les paramètres suivants:

1. **Valider:** Activation de la fonction Washer.
2. **Preset Buse:** Insérer le n° de la présélection (XY) correspondant à la buse.
3. **Retard Essuie-glace On:** Sélectionner l'intervalle de temps qu'il y a entre l'activation de la pompe et celle de l'essuie-glace.
4. **Durée De Lavage:** Choisir la durée de balayage.
5. **Retard Essuie-glace Off:** Choisir la durée de balayage sans eau.

#### SYSTEME DE LAVAGE

```
-----
1>ACTIVE                : N
2 PRESET BUSE           : 1
3 RETARD ESSUIE ON     : 5
4 DUREE LAVAGES        : 10
5 RETARD ESSUIE OFF    : 5
```

Fig. 74



**La validation de la fonction Washer réserve l'utilisation du Relais 2 pour l'allumage de la pompe et enlève la possibilité d'associer le Relais 2 à une alarme.**

### 8.1.14 Menu Par Défaut

1. **Effacer Setup?:** Rétablissement de tous les paramètres à l'exception des preset.
2. **Effacer Preset?:** Élimine tous les preset mémorisés précédemment.

#### DEFAULT

```
-----
1>EFFACER SETUP?
2 EFFACER PRESET?
```

Fig. 75



**Les opérations susmentionnées entraînent la perte de toutes les données mémorisées précédemment (ex.: Preset, Patrol, Autopan, Home...).**

### 8.1.15 Menu Infos

Permet de vérifier la configuration du dispositif et la version de micrologiciel installée.

#### REMARQUE

```
-----
Adresse: 1
Protocole : MACRO
RS485-1: 38400 N81 RX
RS485-2: 38400 N81 RIPET
FW: 0a (Apr 14 2009)
HW: 000-0000
Caméra : 36x
PC: UC1PSSA000A
SN: 109032220029
```

Fig. 76

## 8.1.16 Menu Caméra Thermique

1. **Contrôle:** Configure le type de contrôle de la caméra thermique.
  - **Intérieur:** La configuration de la caméra est gérée par la tourelle.
  - **Extérieur:** La configuration de la caméra est gérée via ligne sérielle RS-485-3 (version avec double caméra uniquement).
2. **Configuration:** Applique l'une des configurations prédéfinies de la caméra thermique.
  - **Standard:** Applique la configuration standard de la configuration thermique.
  - **High Gain:** Définit la configuration prévue pour une résolution supérieure de l'image.
  - **Isotherm:** Applique la configuration prévue pour souligner les objets à l'intérieur d'une plage de température donnée (8.1.16.8 Menu Analyse Thermique (Isotherme), page 47).
  - **Custom:** Signale que la configuration de la caméra thermique a été sélectionnée manuellement par l'utilisateur.
3. **Correction Flat Field:** Permet d'entrer dans le sous-menu pour la gestion de la correction Flat Field.

4. **Configuration Vidéo:** Permet d'entrer dans le sous-menu pour la gestion de la configuration de la vidéo.
5. **Contrôle Gain:** Permet d'entrer dans le sous-menu pour la gestion du contrôle du gain.
6. **Configuration ROI:** Permet d'entrer dans le sous-menu pour la configuration du ROI.
7. **Analyse Thermique:** Permet d'entrer dans le sous-menu pour la gestion de l'analyse thermique.
8. **Status:** Permet d'entrer dans le sous-menu indiquant les caractéristiques techniques de la caméra thermique.

### CAMERA THERMIQUE

```

-----
1>CONTROLE      :      INTERNE
2 CONFIG.      :      STANDARD
3 CORRECTION FLAT FIELD>
4 CONFIGURATION VIDEO >
5 CONTROLE GAIN >
6 CONFIGURATION ROI >
7 ANALYSE THERMIQUE >
8 STATUT >
  
```

Fig. 77

### 8.1.16.1 Menu Correction Flat Field

La caméra thermique possède un mécanisme interne permettant d'améliorer périodiquement la qualité des images: la correction Flat Field (FFC). Les paramètres de gestion de cette fonction sont les suivants:

1. **Flat Field Auto:** Valide la correction Flat Field automatique ou manuelle. Si la correction automatique est validée, la caméra effectue une FFC après un intervalle de temps ou une variation de température donnée. Vice-versa, en cas d'utilisation de la correction manuelle, les opérations FFC sont effectuées sur demande de l'utilisateur. Il est conseillé de toujours utiliser la correction automatique.
2. **Intervalle:** Configure l'intervalle de temps après lequel effectuer une FFC si la plage dynamique de gain est High. L'intervalle de temps est exprimé en photogrammes (33ms pour le NTSC, 40ms pour le PAL).
3. **Intervalle Low:** Configure l'intervalle de temps après lequel effectuer une FFC si la plage dynamique de gain est Low. L'intervalle de temps est exprimé en photogrammes (33ms pour le NTSC, 40ms pour le PAL).
4. **Température:** Configure la variation de température après laquelle effectuer une FFC si la plage dynamique de gain est High. La variation de température est exprimée en intervalles de 0,1 °C.
5. **Température Low:** Configure l'intervalle de temps après lequel effectuer une FFC si la plage dynamique de gain est Low. La variation de température est exprimée en intervalles de 0,1 °C.

6. **Mode Gain:** Permet de sélectionner le type de plage dynamique de gain:
  - **High:** Cette configuration est prévue pour optimiser le contraste et particulièrement indiquée pour les applications effectuant les analyses vidéo des images.
  - **Low:** Cette configuration augmente la plage dynamique de l'image et diminue le contraste. Particulièrement indiquée pour identifier les éléments les plus chauds de l'image.
  - **Auto:** Cette configuration permet à la caméra de commuter entre les modalités High et Low en se basant sur le type d'image actuellement en cours. Les paramètres du menu Valeur Changement Gain servent à modifier le comportement de cette modalité (8.1.16.2 Menu Correction Flat Field (Valeurs Modification Gain), page 44).
7. **Effectuer FFC:** Effectue une opération de FFC.
8. **Valeurs Modification Gain:** Permet d'entrer dans le sous-menu Valeurs Modification Gain.

CORRECTION FLAT FIELD	
-----	
1 >FLAT FIELD AUTO:	S
2 INTERVALLE :	7200
3 INTERVALLE LOW :	1350
4 TEMPERATURE :	5
5 TEMPERATURE LOW:	10
6 MODE GAIN :	HAUT
7 EFFECTUER FFC?	
8 VALEURS MODIF. GAIN	>

Fig. 78



**Il est conseillé de ne pas modifier les valeurs par défaut car ces dernières sont pensées pour offrir une haute qualité des images en toutes conditions de fonctionnement.**

### 8.1.16.2 Menu Correction Flat Field (Valeurs Modification Gain)

Une fois entré dans le menu Valeurs modification gain, il est possible de configurer l'un des paramètres suivants:

1. **Seuil Haut-Bas:** Configure le seuil de température utilisé par le paramètre Population Haut-Bas pour forcer la commutation en mode Faible Gain. La valeur est exprimée en degré Celsius.
2. **Population Haut-Bas:** Configure le taux minimum de pixels au-delà duquel la commutation s'effectue en mode Faible Gain.
3. **Seuil Bas-Haut:** Configure le seuil de température utilisé par le paramètre Population Bas-Haut pour forcer la commutation en mode Gain Élevé. La valeur est exprimée en degré Celsius.
4. **Population Bas-Haut:** Configure le taux minimum de pixels au-delà duquel la commutation s'effectue en mode Gain Élevé.

VALEURS MODIF. GAIN	
-----	
1>SEUIL HAUT-BAS :	140
2 POP. HAUT-BAS :	20
3 SEUIL BAS-HAUT :	100
4 POP. BAS-HAUT :	95

Fig. 79



**Il est conseillé de ne pas modifier les valeurs par défaut car ces dernières sont pensées pour offrir une haute qualité des images en toutes conditions de fonctionnement.**



**Les programmations du menu Valeurs Changement Gain ont effet seulement si le mode Gain a été programmé sur Auto ( 8.1.16.1 Menu Correction Flat Field, page 43).**

### 8.1.16.3 Menu Configuration vidéo

Une fois entré dans le menu Configuration vidéo, il est possible de configurer l'un des paramètres suivants:

1. **Polarité Lut:** Configure le type de coloration de l'image cadrée par la caméra thermique.
2. **Avertissement FFC:** Configure la durée de l'affichage sur l'écran d'un carré coloré en haut à droite avant d'effectuer une FFC. L'intervalle de temps est exprimé en photogrammes (33ms pour le NTSC, 40ms pour le PAL). Une valeur inférieure à 15 photogrammes désactive automatiquement cette signalisation.
3. **Zoom Numérique:** Configure le type de zoom à appliquer au signal vidéo (OFF, Auto, 2x, 4x). En cas d'utilisation du mode Auto le zoom de la caméra thermique s'adapte automatiquement à celui du module SONY
4. **Dynamic DDE:** Configure la valeur du filtre DDE permettant d'améliorer la netteté des contours. Les valeurs types à utiliser varient entre 17 et 25. La valeur 17 désactive le filtre.
5. **Signal Test:** Valide le test pattern pour vérifier le système électronique de la caméra.

CONFIGURATION VIDEO	
-----	
1>POLARITE LUT:	WHITE HOT
2 AVERT. FFC :	60
3 ZOOM NUMER. :	AUTO
4 DYNAMIC DDE :	25
5 SIGNAL TEST :	N

Fig. 80

### 8.1.16.4 Menu Contrôle Gain

Une fois entré dans le menu Configuration contrôle gain, il est possible de configurer l'un des paramètres suivants:

1. **Algorithme:** Configure le type de contrôle automatique du gain (AGC) pour l'optimisation de l'image. Il est possible de sélectionner l'un des algorithmes suivants:
  - **Automatique:** Configure automatiquement le contraste et la luminosité de l'image en cas de variation des conditions ambiantes en égalisant l'histogramme des niveaux de gris. L'image peut être modifiée en changeant la valeur des paramètres ITT Mean, Max Gain et Plateau Value. Cet algorithme est celui configuré par défaut et est conseillé pour l'utilisation normale de la caméra thermique.
  - **Once Bright:** Le niveau de luminosité configuré est la moyenne des valeurs de luminosité de l'image en cas de sélection de cette rubrique. L'image peut être modifiée en changeant la valeur du paramètre Contraste.
  - **Auto Bright:** Le niveau de luminosité configuré est la moyenne des valeurs de luminosité de l'image. Ce niveau est mis à jour en temps réel. L'image peut être modifiée en changeant la valeur des paramètres Contraste et Compensation.
  - **Manuel:** Les niveaux de contraste et de luminosité sont configurés manuellement par l'utilisateur.
  - **Histogramme Linéaire:** Le contraste et la luminosité de l'image sont optimisés au moyen d'une fonction de transfert linéaire. L'image peut être modifiée en changeant la valeur des paramètres ITT Mean et Max Gain.

2. **Valeur De Plateau:** Configure la valeur max. de pixels pouvant être contenus dans un niveau de gris.
3. **Moyenne ITT:** Configure le point moyen de l'échelle de gris.
4. **Gain Max:** Configure le gain max. de l'AGC.
5. **Contraste:** Configure le niveau de contraste de l'image.
6. **Luminosité:** Configure le niveau de luminosité de l'image.
7. **Compensation:** Configure le niveau de compensation de la luminosité de l'image.

CONTROLE GAIN		
-----		
1	>ALGORITHME	AUTO
2	VAL. PLATEAU	150
3	MOY. ITT	127
4	GAIN MAX	8
5	CONTRASTE	32
6	LUMINOSITE	8192
7	COMPENSATION	+ 0

**Fig. 81**

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.

### 8.1.16.5 Menu Configuration ROI

Une fois entré dans le menu Configuration ROI, il est possible de modifier la région intéressée (ROI) utilisée par l'algorithme AGC pour calculer les niveaux de contraste et de luminosité de l'image.

1. **P1 gauche:** Configure la limite gauche de la ROI.
2. **P1 Haut:** Configure la limite supérieure de la ROI.
3. **P2 Droit:** Configure la limite droite de la ROI.
4. **P2 Bas:** Configure la limite inférieure de la ROI.

CONFIGURATION ROI			
-----			
1	>P1 GAUCHE	:	- 160
2	P1 HAUT	:	- 128
3	P2 DROIT	:	+ 160
4	P2 BAS	:	+ 128

Fig. 82

### 8.1.16.6 Menu Analyse Thermique

1. **Point De Mesure:** Permet d'entrer dans le sous-menu pour la configuration du point de mesure.
2. **Isotherme:** Permet d'entrer dans le sous-menu pour la gestion de l'isotherme.

ANALYSE THERMIQUE		
-----		
1	>POINT DE MESURE	>
2	ISOTHERME	>

Fig. 83

### 8.1.16.7 Menu Analyse Thermique (Point de Mesure)

Une fois entré dans le menu Point de mesure, il est possible de configurer l'un des paramètres suivants:

1. **Mode:** Valide l'affichage de la température mesurée des 4 pixels au centre de l'image (en degrés Celsius ou Fahrenheit). L'option OFF désactive l'affichage.
2. **Numérique:** Valide l'affichage du symbole correspondant sur l'écran.
3. **Thermomètre:** Valide l'affichage du symbole correspondant sur l'écran.

POINT DE MESURE		
-----		
1	>MODE	: OFF
2	NUMERIQUE	: N
3	THERMOMETRE	: N

Fig. 84



### 8.1.16.8 Menu Analyse Thermique (Isotherme)

Une fois entré dans le menu Isotherme, il est possible d'activer une coloration particulière des objets compris dans l'intervalle de température configuré. Les paramètres de gestion de cette fonction sont les suivants:

1. **Valider:** Valide la fonction Isotherme.
2. **Mode:** Sélectionne le mode dans lequel est exprimé l'intervalle (en pourcentage ou en degrés Celsius).
3. **Plus Haut:** Configure la limite supérieure de la fonction Isotherme.
4. **Plus Bas:** Configure la limite inférieure de la fonction Isotherme.

ISOTHERME			
-----			
1	>VALIDER	:	N
2	MODE	:	PERCENT
3	PLUS HAUT	:	95
4	PLUS BAS	:	90

Fig. 85

Le menu se configure automatiquement de façon dynamique en fonction de la sélection effectuée en affichant les paramètres pouvant être modifiés.

### 8.1.16.9 Menu Status

Une fois entré dans le menu Statut, il est possible de consulter les caractéristiques techniques de la caméra technique.

STATUS	
-----	
VERSION SW	: 0A00.022B
VERSION FW	: 0802.0040
CAMERA S.N.	: 00001234
SENSORE S.N.	: 00001234
TEMPERATURE	: +0034.0
P.N.	41320035A-SPXXX

Fig. 86

## 9 Accessoires

**i** Pour de plus amples informations sur la configuration et l'utilisation, consulter le manuel de l'accessoire correspondant.

### 9.1 Système de lavage

La tourelle peut être équipée d'une pompe extérieure qui fournit de l'eau pour le nettoyage de la vitre.

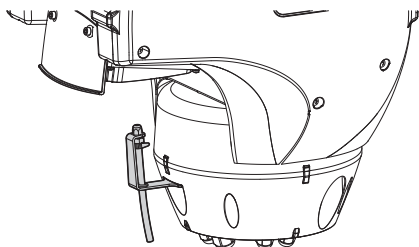


Fig. 87

### 9.2 Support fixation murale

Support mural avec passage interne des câbles.

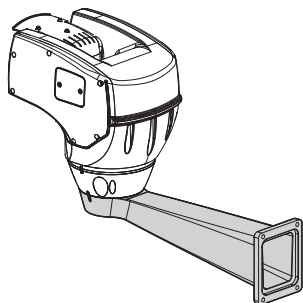


Fig. 88

### 9.3 Support fixation sol

Support de fixation au sol avec passage interne des câbles.

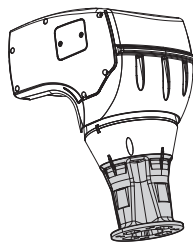


Fig. 89

### 9.4 Pour fixation au plafond

**!** Remplacer les rondelles dentées après chaque retrait du corps de la base.

L'unité peut être installée à l'envers grâce au support de fixation plafond.

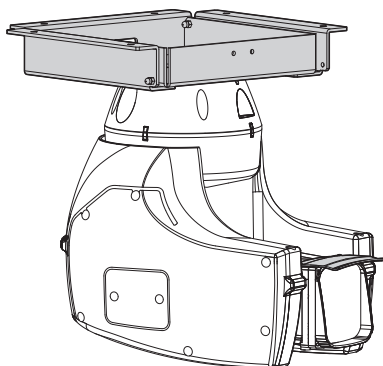


Fig. 90

# 10 Instructions de fonctionnement courant



**Cadrer le soleil directement et pendant une période prolongée peut causer des dommages irréparables au capteur de la caméra thermique.**

## 10.1 Affichage de l'état de la tourelle

Durant le fonctionnement normal, au choix de l'utilisateur, la tourelle affiche sur le moniteur les données organisées selon les illustrations. L'affichage peut être validé ou exclu (8.1.11 Menu Affichages, page 39).

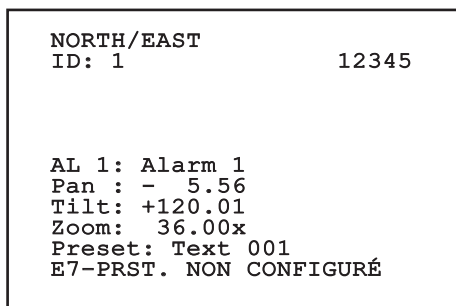


Fig. 91

**NORTH/EAST:** Nom de l'aire dans laquelle on se trouve.

**ID:** 1: L'adresse du récepteur.

**12345:** La liste complète des alarmes validées.

**AL 1:** Alarm 1: Le texte de la dernière alarme validée.

**Pan:** - 5.56/Tilt: +120.01/Zoom: 36.00x: La position actuelle de Pan, Tilt et Zoom.

**Preset:** Text 001: Le nom de la présélection choisie validée.

**E7-PRST. NON CONFIGURÉ:** Le champ suivant affiche les erreurs constatées durant le fonctionnement du système ou les commandes reçues par série (l'affichage peut être validé ou non seulement pour les commandes reçues).

## 10.2 Enregistrement d'un Preset

### 10.2.1 Sauvegarde rapide

A partir du pupitre de contrôle, il est possible de sauvegarder la position actuelle. Pour plus d'informations, se référer au manuel du pupitre utilisé.

Durant la phase de sauvegarde, il est possible de modifier la vitesse d'obtention de la Présélection avec les touches Focus Far/Focus Near et le temps d'attente avec les touches Iris Open/Iris Close.

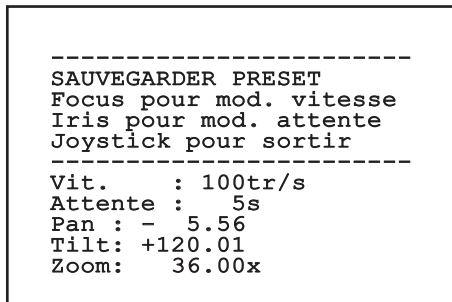


Fig. 92

### 10.2.2 Sauvegarde à partir du Menu

Se référer à 8.1.10.3 Menu Preset, page 36.

## 10.3 Rappel d'une position de Preset (Scan)

Avec un dispositif de contrôle, il est possible de rappeler une position de Preset précédemment sauvegardée (pour de plus amples informations, se référer au manuel du dispositif utilisé).

## 10.4 Activation du Patrol

Pour activer/désactiver la fonction se référer au chapitre relatif du manuel du dispositif de contrôle utilisé. (10.13 Commandes spéciales, page 52).

Pour désactiver la fonction déplacer le joystick ou bien rappeler un type de mouvement différent.

Pour configurer cette fonction se référer au chapitre relatif. (8.1.10.6 Menu Patrol, page 37).

## 10.5 Activation de l'Autopan

La fonction Autopan rappelle de façon continue les 2 Preset mémorisés.

Pour activer/désactiver la fonction se référer au chapitre relatif du manuel du dispositif de contrôle utilisé. (10.13 Commandes spéciales, page 52).

Pour désactiver la fonction déplacer le joystick ou bien rappeler un type de mouvement différent.

Pour configurer cette fonction se référer au chapitre relatif. (8.1.10.7 Menu Autopan, page 37).

## 10.6 Rappel d'un parcours (Tour)

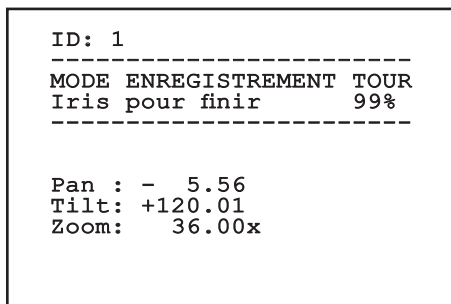
La modalité de fonctionnement Tour permet de répéter un parcours précédemment enregistré de façon continue.

La tourelle peut enregistrer jusqu'à 3 tours d'une durée maximale égale à 2 minutes chacun.

Pour mémoriser un Tour, taper sur le pupitre la présélection spéciale correspondant au numéro du Tour à sauvegarder (10.13 Commandes spéciales, page 52).

Pour faciliter l'enregistrement du Tour, la tourelle limite automatiquement la vitesse de Pan et Tilt en fonction du facteur de Zoom.

Pendant l'enregistrement du Tour, on peut voir le pourcentage du temps d'enregistrement restant, comme l'indique la figure.



**Fig. 93**

Pour interrompre l'enregistrement, appuyer sur la touche Iris Open ou Iris Close.

Pour démarrer la reproduction d'un Tour, taper sur le pupitre le preset spécial correspondant au numéro du Tour à afficher (10.13 Commandes spéciales, page 52).

## 10.7 Rappel de la position de Home

Avec un dispositif de contrôle, il est possible de rappeler une position de Home (Scan n.1) précédemment sauvegardée (pour plus d'informations, se référer au manuel du dispositif de contrôle utilisé).

## 10.8 Validation de l'essuie-glace (Wiper)



**Ne pas utiliser l'essuie-glace lorsque la température extérieure est inférieure à 0°C ou en cas de givre.**

Pour activer/désactiver la fonction se référer au chapitre relatif du manuel du dispositif de contrôle utilisé. (10.13 Commandes spéciales, page 52).



**L'essuie-glace est exclu de façon automatique si on le laisse allumé.**

## 10.9 Activation du système de lavage (Washer)

Lorsque l'on envoie la commande, la tourelle se positionne avec la vitre devant la buse. La pompe et l'essuie-glace sont validés pendant une durée déterminée. À la fin de la procédure la tourelle revient dans sa position initiale.

Pour activer/désactiver la fonction se référer au chapitre relatif du manuel du dispositif de contrôle utilisé. (10.13 Commandes spéciales, page 52).

Pour les modèles avec système de lavage équipés de capteur de niveau, peut en outre visualiser un message sur la vidéo quand le niveau du liquide dans le réservoir est insuffisant (seulement si l'on utilise une pompe à grande hauteur d'élévation).

## 10.10 Reboot du dispositif

Pour d'autres renseignements se référer à le chapitre relatif (10.13 Commandes spéciales, page 52).

## 10.11 Correction manuelle de la mise au point d'un preset

Rappeler le preset dont la mise au point doit être modifiée avec la commande Scan. Modifier la mise au point au moyen des touches Focus Far/Focus Near sans modifier la position de Pan/Tilt/Zoom. Enregistrer le preset au moyen de la commande Preset.



**La correction manuelle du Preset n'est effective que si les Autofocus Jour/Nuit sont désactivés (8.1.10.5 Menu Preset (Utilités Preset), page 37).**

## 10.12 Commutation de la sortie vidéo secondaire

Pour sélectionner le signal vidéo (module intégré ou caméra thermique), se reporter aux commandes Vidéo 2 module intégré et Vidéo 2 caméra thermique (10.13 Commandes spéciales, page 52).

## 10.13 Commandes spéciales

<b>COMMANDES SPÉCIALES</b>					
<b>Commande</b>	<b>Protocole</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Tour 1 Start enregistrement	Sauver Preset 77	Sauver Preset 77	Sauver Preset 77	Sauver Preset 77	Sauver Preset 77
		Début d'enregistrement du pattern 3		Sauver Preset 47	Sauver Preset 2
Tour 2 Start enregistrement	Sauver Preset 78	Sauver Preset 78	Sauver Preset 78	Sauver Preset 78	Sauver Preset 78
				Sauver Preset 48	Sauver Preset 3
Tour 3 Start enregistrement	Sauver Preset 79	Sauver Preset 79	Sauver Preset 79	Sauver Preset 79	Sauver Preset 79
				Sauver Preset 50	Sauver Preset 4
Tour 1 Start	Sauver Preset 80	Sauver Preset 80	Sauver Preset 80	Sauver Preset 80	Sauver Preset 80
		Activer pattern 3		Sauver Preset 51	Pattern 2
Tour 2 Start	Sauver Preset 81	Sauver Preset 81	Sauver Preset 81	Sauver Preset 81	Sauver Preset 81
				Sauver Preset 52	Pattern 3
Tour 3 Start	Sauver Preset 82	Sauver Preset 82	Sauver Preset 82	Sauver Preset 82	Sauver Preset 82
				Sauver Preset 53	Pattern 4
Tour Record Stop	Iris Open/Close	Iris Open/Close	Iris Open/Close	Iris Open/Close	IrisOpen/Close
		Sauvetage nouveau pattern			Ack


<b>COMMANDES SPÉCIALES</b>					
<b>Commande</b>	<b>Protocole</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Wiper Start	Sauver Preset 85	Sauver Preset 85	Sauver Preset 85	Sauver Preset 85	Sauver Preset 85
	Aux 3 ON	Aux 3 ON	Aux 3 ON	Sauver Preset 54	Aux 3 ON
	Wip+				
Wiper Stop	Sauver Preset 86	Sauver Preset 86	Sauver Preset 86	Sauver Preset 86	Sauver Preset 86
	Aux 3 OFF	Aux 3 OFF	Aux 3 OFF	Sauver Preset 55	Aux 3 OFF
	Wip-				
Washer	Sauver Preset 87	Sauver Preset 87	Sauver Preset 87	Sauver Preset 87	Sauver Preset 87
	Aux 4 ON	Aux 4 ON	Aux 4 ON	Sauver Preset 56	Aux 4 ON
	Was+				
Modalité Nocturne On	Sauver Preset 88	Sauver Preset 88	Sauver Preset 88	Sauver Preset 88	Sauver Preset 88
				Sauver Preset 57	
Modalité Nocturne Off	Sauver Preset 89	Sauver Preset 89	Sauver Preset 89	Sauver Preset 89	Sauver Preset 89
				Sauver Preset 58	
Reboot du dispositif	Sauver Preset 94	Sauver Preset 94	Sauver Preset 94	Sauver Preset 94	Sauver Preset 94
	Ini+	Faster+ Zoom out+ Focus far+ Iris open		Sauver Preset 61	
Validation OSM	Sauver Preset 95	Sauver Preset 95	Sauver Preset 95	Sauver Preset 95	Sauver Preset 95
	Men+	Iris open+ Focus+ Zoom out		Sauver Preset 46	

<b>COMMANDES SPÉCIALES</b>					
<b>Commande</b>	<b>Protocole</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Patrol Start	Sauver Preset 93	Sauver Preset 93	Sauver Preset 93	Sauver Preset 93	Sauver Preset 93
	Pat+	Activer pattern 1	Activer patrol	Sauver Preset 60	Pattern
Patrol Stop	Sauver Preset 92	Sauver Preset 92	Sauver Preset 92	Sauver Preset 92	Sauver Preset 92
	Joystick	Joystick	Joystick	Joystick	Joystick
	Pat-			Sauver Preset 59	
Autopan Start	Sauver Preset 99	Sauver Preset 99	Sauver Preset 99	Sauver Preset 99	Sauver Preset 99
	Apa+	Activer pattern 2	Activer Autopan	Sauver Preset 63	Pattern 1
Autopan Stop	Sauver Preset 96	Sauver Preset 96	Sauver Preset 96	Sauver Preset 96	Sauver Preset 96
	Joystick	Joystick	Joystick	Joystick	Joystick
	Apa-			Sauver Preset 62	
Exécuter FFC	Sauver Preset 74	Sauver Preset 74	Sauver Preset 74	Sauver Preset 74	Sauver Preset 74
				Sauver Preset 43	
Vidéo 2 caméra thermique	Sauver Preset 75	Sauver Preset 75	Sauver Preset 75	Sauver Preset 75	Sauver Preset 75
				Sauver Preset 44	
Vidéo 2 module intégré	Sauver Preset 76	Sauver Preset 76	Sauver Preset 76	Sauver Preset 76	Sauver Preset 76
				Sauver Preset 45	

Tab. 12



# 11 Entretien

 **L'entretien doit être uniquement effectué par un personnel qualifié en matière de circuits électriques.**


## 11.1 Clone configuration

En cas de nécessité il est possible d'effectuer une sauvegarde de la configuration du socle de pointage.

Pour toute information supplémentaire contacter le centre d'assistance VIDEOTEC.

L'opération de sauvegarde ou restauration peut être effectuée sur place au moyen du câble fourni avec la tourelle. L'opération peut être effectuée à distance (seulement MACRO/VIDEOTECH et PELCO D protocoles) avec un convertisseur USB/Sérial 485 (non fourni en dotation).

## 11.2 Remplacement des fusibles

 **ATTENTION! Pour assurer la protection contre le risque d'incendie, remplacer les fusibles avec le même type et valeur. Les fusibles doivent être remplacés seulement par un personnel qualifié.**

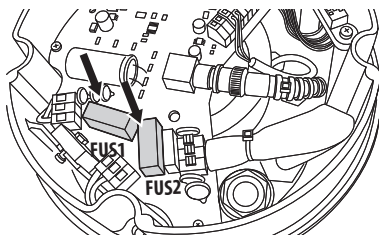


Fig. 94

Les fusibles utilisés sont décrits ci-dessous.


REMPACEMENT DES FUSIBLES		
Tension	Fusible F1	Fusible F2
24Vac, 50/60Hz	T 4A L 250V 5x20	T 6.3A H 250V 5x20
120Vac, 50/60Hz	T 4A L 250V 5x20	T 4A H 250V 5x20
230Vac, 50/60Hz	T 4A L 250V 5x20	T 2A H 250V 5x20

Tab. 13

À la place, utiliser des fusibles homologués possédant des caractéristiques identiques.

# 12 Nettoyage

## 12.1 Entretien de la vitre et des parties en plastique

 **On doit éviter alcool éthylique, solvants, hydrocarbures hydro-génés, acides forts et alcali. L'emploi de ce type de produits abîme d'une façon irréparable la surface traitée.**

Il est conseillé d'utiliser un chiffon souple avec des savons neutres dilués avec de l'eau ou des produits spécifiques pour le nettoyage des verres des lunettes.

## 13 Élimination des déchets



**Ce symbole et le système de recyclage ne sont appliqués que dans les pays UE et non dans les autres pays du monde.**

Votre produit est conçu et fabriqué avec des matériaux et des composants de qualité supérieure qui peuvent être recyclés et réutilisés.

Ce symbole signifie que les équipements électriques et électroniques en fin de vie doivent être éliminés séparément des ordures ménagères.

Nous vous prions donc de confier cet équipement à votre Centre local de collecte ou Recyclage.

Dans l'Union Européenne, il existe des systèmes sélectifs de collecte pour les produits électriques et électroniques usagés.

## 14 Dépannage

Demander l'intervention d'un personnel qualifié dans les cas suivants:

- L'unité est endommagée à la suite d'une chute;
- Les performances de l'unité ont baissé.
- L'unité ne fonctionne pas correctement après avoir respecté toutes les indications de ce manuel.

PROBLÈME	<b>Le produit ne s'allume pas.</b>
CAUSE	<i>Câblage incorrect, rupture des fusibles.</i>
SOLUTION	Vérifier les connexions. Vérifier la continuité des fusibles et les remplacer avec les modèles indiqués en cas de panne.
PROBLÈME	<b>Les positions de Preset enregistrées ne correspondent pas à la zone filmée.</b>
CAUSE	<i>Perte de référence de position absolue.</i>

PROBLÈME

**Durant la mise en service, la tourelle reste bloquée et affiche une page-écran du type suivant:**

Adresse : 1

PROCED. DE DEGIVRAGE  
EN COURS...

MINUTES RESTANTES:59

CAUSE

*La température ambiante est trop basse.*

SOLUTION

Attendre la fin de la procédure de préchauffage. Si la température ambiante est trop basse, l'unité reste bloquée et affiche la page-écran suivante:

Adresse : 1

PROCED. DE DEGIVRAGE

-----  
SYSTEME BLOQUE  
TEMPERATURE TROP BAS  
-----

PROBLÈME

**Erreur E1-AUTOPAN SANS LIMITES.**

CAUSE

*Les deux présélections utilisées comme limites n'ont pas été programmées.*

SOLUTION

Programmer les deux présélections, puis mettre à jour le menu de configuration de l'autopan (10.2 Enregistrement d'un Preset, page 49 e 8.1.10.7 Menu Autopan, page 37).

PROBLÈME	<b>Erreur E2-ESSUIE-GLACE BLOQUÉ.</b>
CAUSE	<i>Essuie-glace bloqué ou cassé.</i>
SOLUTION	Vérifier que l'essuie-glace est libre de se déplacer.

PROBLÈME	<b>Erreur E3-PATROL SANS PRÉSÉLECTION ou erreur E4-PATROL SEULEMENT 1 PRÉSÉLECTION.</b>
CAUSE	<i>Les présélections n'ont pas été programmées.</i>
SOLUTION	Programmer deux ou plusieurs présélections, puis mettre à jour le menu de configuration patrol (10.2 Enregistrement d'un Preset, page 49 e 8.1.10.6 Menu Patrol, page 37).

PROBLÈME	<b>Erreur E5-IR TEMP. TROP HAUTE ou erreur E6-IR EN PANNE.</b>
CAUSE	<i>Fonctionnement erroné du projecteur à infrarouge.</i>
SOLUTION	Sauvegarder la présélection à l'aide de la commande prévue à cet effet (10.2 Enregistrement d'un Preset, page 49).

PROBLÈME	<b>Erreur E7-PRST. NON CONFIGURÉ.</b>
CAUSE	<i>Rappel d'une présélection non programmée.</i>
SOLUTION	Contactez le centre d'assistance autorisé.

PROBLÈME	<b>Erreur E8-TOUR NON CONFIGURÉ.</b>
CAUSE	<i>Rappel d'un Tour non programmé.</i>
SOLUTION	Sauvegarder le Tour avec la commande prévue à cet effet (10.6 Rappel d'un parcours (Tour), page 50).

PROBLÈME	<b>Erreur E9-TEMP. TROP FAIBLE.</b>
CAUSE	<i>La température ambiante est trop basse.</i>
SOLUTION	Les mouvements de la tourelle sont bloqués pour empêcher les dommages mécaniques.

PROBLÈME	<b>Alarme AL6 :NIVEAU DE L'EAU BAS</b>
CAUSE	<i>Niveau liquide lave-glace insuffisant.</i>
SOLUTION	Remplir le réservoir de la pompe avec le liquide lave-glace.

## 15 Données techniques



**ATTENTION! L'installation est du type TNV-1. Ne pas la connecter à des circuits SELV.**



**ATTENTION! Pour réduire les risques d'incendie, utiliser uniquement des câbles certifiés UL Listed ou CSA de dimensions égales ou supérieures à 0.13mm<sup>2</sup> (26 AWG).**

### 15.1 Généralités

Fabriqu  en fonte d'aluminium et en technopolym re

Vernissage avec poudres  poxypolyester, couleur RAL9002

Fen tre avec vitre au Germanium pour la cam ra thermique

Installation simplifi e gr ce au connecteur autocentrant

Aucun jeu m canique

Configuration rapide

Syst me dynamique de contr le de la position

Cha ne de 16 caract res pour intitul  de la zone et des preset

Fonctions: Autopan, Preset, Patrol, Tour (maximum 3), Autoflip

### 15.2 M canique

Presse- toupes: 2xM16, 2xM12

Rotation horizontale: continue

Rotation verticale: -90    +90 

Vitesse horizontale (variable): de 0.1    200 /s

Vitesse verticale (variable): de 0.1    200 /s

Pr cision du rappel des pr positions: 0,05 

Poids net: 12.5kg

### 15.3  lectricite

Tension d'alimentation/Courant absorb :

- 230Vac, 0.4A, 50/60Hz
- 24Vac, 4A, 50/60Hz
- 120Vac, 0.8A, 50/60Hz

Puissance absorb e

- 40W: tourelle   l'arr t, chauffage  teint
- 60W: tourelle en mouvement, chauffage  teint
- 125W: pic   l'allumage, chauffage allum 

Dimension câbles d'entr e: AWG 16-AWG 19

Dimensions câbles de signalisation: AWG 16-AWG 30

Ligne vid o: câble coaxial (1Vpp, 75Ohm)

I/O carte d'alarme

- Entr es d'alarme: 6
- Sorties relais: 2 (2A, 30Vac/60Vdc max)

### 15.4 Communications

Programmation par OSD

Interface s riele RS485 half duplex, RS422 full duplex et configuration en cascade

Mise   jour du logiciel par console   distance (seulement VIDEOTEC MACRO et PELCO D protocoles)

Jusqu'  1023 unit s adressables par dip-switches

### 15.5 Protocoles

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

Nombre maximum de presets pour protocole

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, seul par OSD (On Screen Display)

## 15.6 Caméra

CAMÉRAS THERMIQUES (RÉSOLUTION 320X256)										
	Objectif 35mm		Objectif 25mm		Objectif 19mm		Objectif 13mm		Objectif 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Capteur	Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx	
Résolution	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Dimensions pixel	25µm		25µm		25µm		25µm		25µm	
Réponse spectrale - Infrarouge onde longue (LWIR)	de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm	
Obturateur interne (uniquement pour compensation senseur)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Zoom numérique	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Fréquence de mise à jour d'image	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Haut fréquence de mise à jour d'image	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Gamme scène (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Gamme scène (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Champ de vision horizontal	13°		18°		24°		34°		48°	
Champ de vision vertical	10°		14°		18°		26°		37°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Sensibilité thermique (NEdT)	< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0	
Homme (détection / reconnaissance / identification)	800m / 200m / 105m		590m / 148m / 75m		450m / 112m / 56m		300m / 74m / 37m		205m / 52m / 26m	
Auto (détection / reconnaissance / identification)	2250m / 590m / 290m		1650m / 430m / 215m		1280m / 330m / 165m		840m / 215m / 108m		590m / 150m / 74m	

Tab. 14

CAMÉRAS THERMIQUES (RÉSOLUTION 640X512)										
	Objectif 35mm		Objectif 25mm		Objectif 19mm		Objectif 13mm		Objectif 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Capteur	Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx		Microbolomètre non refroidi VOx	
Résolution	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Dimensions pixel	17µm		17µm		17µm		17µm		17µm	
Réponse spectrale - Infra-rouge onde longue (LWIR)	de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm		de 7.5µm à 13.5µm	
Obturbateur interne (uniquement pour compensation senseur)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Zoom numérique	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Fréquence de mise à jour d'image	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Haut fréquence de mise à jour d'image	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Gamme scène (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Gamme scène (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Champ de vision horizontal	18°		25°		32°		45°		69°	
Champ de vision vertical	14°		20°		26°		37°		56°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Sensibilité thermique (NEdT)	< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0		< 50mK à f/1.0	
Homme (détection / reconnaissance / identification)	1140m / 280m / 142m		820m / 210m / 104m		570m / 144m / 72m		390m / 95m / 47m		250m / 63m / 31m	
Auto (détection / reconnaissance / identification)	3000m / 800m / 200m		2200m / 580m / 290m		1550m / 400m / 200m		1080m / 275m / 140m		720m / 175m / 88m	

Tab. 15

CAMÉRAS ANALOGIQUES (DAY/NIGHT)				
	Day/Night 36x		Day/Night 28x Haute sensibilité	
	PAL	NTSC	PAL	NTSC
Zoom optique	36x		28x	
Wide Dynamic Range (Fix/Auto)	✓		-	
True progressive SCAN	✓		-	
Stabilisation image digitale	✓		✓	
Équilibrage du blanc	Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)		Auto, ATW, Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)	
Haute résolution horizontale	Jusqu'à 550 Lignes TV		Jusqu'à 550 Lignes TV	
Day/Night (Auto ICR)	✓		✓	
Capteur d'image	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Nombre de pixels effectifs	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Éclairage Couleur minimum (IR-Cut Filter = OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Éclairage B/W minimum	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
Accroissement automatique du temps d'exposition pour améliorer la vision de nuit	✓		✓	
Rapport signal/bruit	Supérieur à 50dB		Supérieur à 50dB	
Contrôle AE	Automatique, Priorité de l'obturateur, Priorité du diaphragme, Priorité de la luminosité et Manuel		Automatique, Priorité de l'obturateur, Priorité du diaphragme, Priorité de la luminosité et Manuel	
Compensation de rétro-illumination	On/Off		On/Off	
Masquage (3D) des zones privées avec mise à jour automatique	✓		✓	
Masquage dynamique	On/Off (24 positions)		On/Off (24 positions)	
Nombre maximum de blocs de masquage affichables	8		8	
Résolution des blocs de masquage	160x120 HxV		160x120 HxV	
Masquage	Jusqu'à 15 types de masquage: 14 couleurs ou mosaïque		Jusqu'à 15 types de masquage: 14 couleurs ou mosaïque	
Système de focalisation	Auto (Sensibilité : Normale, Basse), Trigger PTZ, Manuel		Auto (Sensibilité : Normale, Basse), Trigger PTZ, Manuel	
Contrôle "Intelligent" des objectifs	Reset Lentilles Automatique		Reset Lentilles Automatique	
Haute capacité de Zoom et champ horizontal de visualisation étendu	✓		✓	
Zoom optique	36x, f=3.4 (grand angle) à 122.4mm (télé) / F1.6 à F4.5		28x, f=3.5 (grand angle) à 98mm (télé) / F1.35 à F3.7	
Zoom numérique	12x (432x avec zoom optique)		12x (336x avec zoom optique)	
Angle visuel (A)	57.8 degrés (grand angle) à 1,7 degrés (télé)		55.8 degrés (grand angle) à 2,1 degrés (télé)	
Distance minimum de l'objet	320mm (grand angle) à 1500mm (télé)		10mm (grand angle) à 1500mm (télé)	
Vitesse Iris Electronique	1/1 ÷ 1/10000s		1/1 ÷ 1/10000s	

Tab. 16



## 15.7 Environnement

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Intérieur/Extérieur

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Température de fonctionnement (avec chauffage): de -40°C jusqu'à +60°C

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Résistance au vent

- En service: jusqu'à 160km/h
  - Stationnaire: jusqu'à 210km/h
- 

Protection contre les impulsions: jusqu'à 2kV entre ligne et ligne, jusqu'à 4kV entre ligne et terre (Classe 4)

## 15.8 Certifications

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Sécurité électrique (CE): EN60950-1, IEC60950-1

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Compatibilité électromagnétique (CE): EN61000-6-4, EN50130-4, EN55022 (Classe A), EN61000-6-4, FCC Part 15 (Classe A)

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Installation à l'extérieur (CE): EN60950-22, IEC60950-22

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Degré de protection IP: EN60529 (IP66)

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Certification UL: cULus Listed (TYPE 4X)

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Certification EAC

# 16 Dessins techniques



Les dimensions des dessins sont exprimées en millimètres.

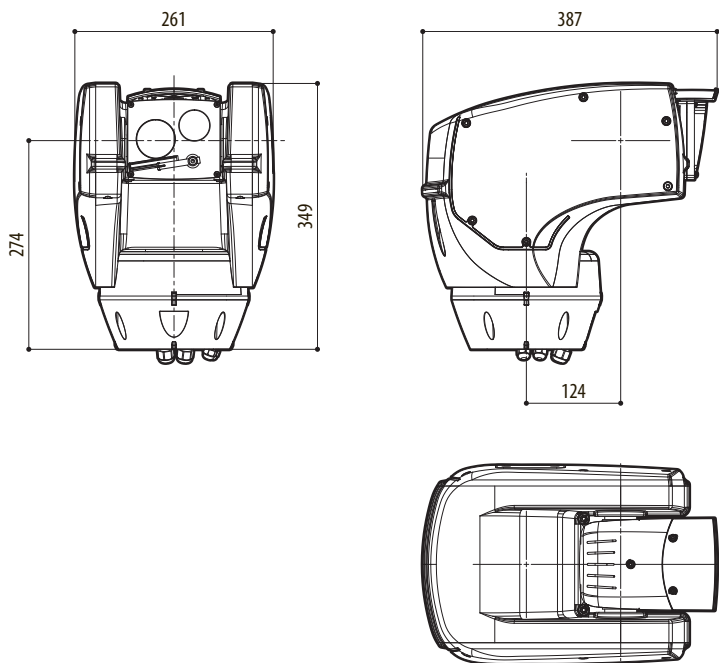


Fig. 95 ULISSE COMPACT THERMAL.

# A Annexe - Tableau des adresses



Le levier du switch vers le haut représente la valeur 1 (ON). Le levier du dip-switch vers le bas représente la valeur 0 (OFF).

Ci-après, on reporte toutes les combinaisons possibles.

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse non valide	Adresse 512
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 1	Adresse 513
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 2	Adresse 514
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 3	Adresse 515
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 4	Adresse 516
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 5	Adresse 517
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 6	Adresse 518
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 7	Adresse 519
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 8	Adresse 520
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 9	Adresse 521
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 10	Adresse 522
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 11	Adresse 523
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 12	Adresse 524
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 13	Adresse 525
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 14	Adresse 526
ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 15	Adresse 527
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 16	Adresse 528
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 17	Adresse 529
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 18	Adresse 530
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 19	Adresse 531
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 20	Adresse 532
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 21	Adresse 533
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 22	Adresse 534
ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 23	Adresse 535
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 24	Adresse 536
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 25	Adresse 537
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 26	Adresse 538
ON	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 27	Adresse 539
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 28	Adresse 540
ON	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 29	Adresse 541
OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 30	Adresse 542
ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 31	Adresse 543
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 32	Adresse 544
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 33	Adresse 545
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 34	Adresse 546
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 35	Adresse 547
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 36	Adresse 548
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 37	Adresse 549
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 38	Adresse 550

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 39	Adresse 551
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 40	Adresse 552
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 41	Adresse 553
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 42	Adresse 554
ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 43	Adresse 555
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 44	Adresse 556
ON	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 45	Adresse 557
OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 46	Adresse 558
ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 47	Adresse 559
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 48	Adresse 560
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 49	Adresse 561
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 50	Adresse 562
ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 51	Adresse 563
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 52	Adresse 564
ON	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 53	Adresse 565
OFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 54	Adresse 566
ON	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 55	Adresse 567
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 56	Adresse 568
ON	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 57	Adresse 569
OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 58	Adresse 570
ON	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 59	Adresse 571
OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 60	Adresse 572
ON	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 61	Adresse 573
OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 62	Adresse 574
ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 63	Adresse 575
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 64	Adresse 576
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 65	Adresse 577
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 66	Adresse 578
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 67	Adresse 579
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 68	Adresse 580
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 69	Adresse 581
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 70	Adresse 582
ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 71	Adresse 583
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 72	Adresse 584
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 73	Adresse 585
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 74	Adresse 586
ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 75	Adresse 587
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 76	Adresse 588
ON	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 77	Adresse 589
OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 78	Adresse 590
ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 79	Adresse 591
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 80	Adresse 592
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 81	Adresse 593
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 82	Adresse 594
ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 83	Adresse 595

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 84	Adresse 596
ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 85	Adresse 597
OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 86	Adresse 598
ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 87	Adresse 599
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 88	Adresse 600
ON	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 89	Adresse 601
OFF	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 90	Adresse 602
ON	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 91	Adresse 603
OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 92	Adresse 604
ON	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 93	Adresse 605
OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 94	Adresse 606
ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 95	Adresse 607
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 96	Adresse 608
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 97	Adresse 609
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 98	Adresse 610
ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 99	Adresse 611
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 100	Adresse 612
ON	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 101	Adresse 613
OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 102	Adresse 614
ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 103	Adresse 615
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 104	Adresse 616
ON	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 105	Adresse 617
OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 106	Adresse 618
ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 107	Adresse 619
OFF	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 108	Adresse 620
ON	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 109	Adresse 621
OFF	ON	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 110	Adresse 622
ON	ON	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 111	Adresse 623
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 112	Adresse 624
ON	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 113	Adresse 625
OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 114	Adresse 626
ON	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 115	Adresse 627
OFF	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 116	Adresse 628
ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 117	Adresse 629
OFF	ON	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 118	Adresse 630
ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 119	Adresse 631
OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 120	Adresse 632
ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 121	Adresse 633
OFF	ON	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 122	Adresse 634
ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 123	Adresse 635
OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	Adresse 124	Adresse 636
ON	OFF	ON	ON	ON	ON	ON	OFF	OFF	Adresse 125	Adresse 637
OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	Adresse 126	Adresse 638
ON	ON	ON	ON	ON	ON	ON	OFF	OFF	Adresse 127	Adresse 639
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 128	Adresse 640

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 129	Adresse 641
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 130	Adresse 642
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 131	Adresse 643
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 132	Adresse 644
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 133	Adresse 645
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 134	Adresse 646
ON	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 135	Adresse 647
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 136	Adresse 648
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 137	Adresse 649
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 138	Adresse 650
ON	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 139	Adresse 651
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 140	Adresse 652
ON	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 141	Adresse 653
OFF	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 142	Adresse 654
ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 143	Adresse 655
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 144	Adresse 656
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 145	Adresse 657
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 146	Adresse 658
ON	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 147	Adresse 659
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 148	Adresse 660
ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 149	Adresse 661
OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 150	Adresse 662
ON	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 151	Adresse 663
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 152	Adresse 664
ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 153	Adresse 665
OFF	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 154	Adresse 666
ON	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 155	Adresse 667
OFF	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 156	Adresse 668
ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 157	Adresse 669
OFF	ON	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 158	Adresse 670
ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 159	Adresse 671
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 160	Adresse 672
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 161	Adresse 673
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 162	Adresse 674
ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 163	Adresse 675
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 164	Adresse 676
ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 165	Adresse 677
OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 166	Adresse 678
ON	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 167	Adresse 679
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 168	Adresse 680
ON	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 169	Adresse 681
OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 170	Adresse 682
ON	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 171	Adresse 683
OFF	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 172	Adresse 684
ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 173	Adresse 685

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 174	Adresse 686
ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 175	Adresse 687
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 176	Adresse 688
ON	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 177	Adresse 689
OFF	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 178	Adresse 690
ON	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 179	Adresse 691
OFF	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 180	Adresse 692
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 181	Adresse 693
OFF	ON	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 182	Adresse 694
ON	ON	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 183	Adresse 695
OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 184	Adresse 696
ON	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 185	Adresse 697
OFF	ON	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 186	Adresse 698
ON	ON	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 187	Adresse 699
OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	Adresse 188	Adresse 700
ON	OFF	ON	ON	ON	ON	OFF	ON	OFF	Adresse 189	Adresse 701
OFF	ON	ON	ON	ON	ON	OFF	ON	OFF	Adresse 190	Adresse 702
ON	ON	ON	ON	ON	ON	OFF	ON	OFF	Adresse 191	Adresse 703
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 192	Adresse 704
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 193	Adresse 705
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 194	Adresse 706
ON	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 195	Adresse 707
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 196	Adresse 708
ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 197	Adresse 709
OFF	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 198	Adresse 710
ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 199	Adresse 711
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 200	Adresse 712
ON	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 201	Adresse 713
OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 202	Adresse 714
ON	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 203	Adresse 715
OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 204	Adresse 716
ON	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 205	Adresse 717
OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 206	Adresse 718
ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 207	Adresse 719
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 208	Adresse 720
ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 209	Adresse 721
OFF	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 210	Adresse 722
ON	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 211	Adresse 723
OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 212	Adresse 724
ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 213	Adresse 725
OFF	ON	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 214	Adresse 726
ON	ON	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 215	Adresse 727
OFF	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 216	Adresse 728
ON	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 217	Adresse 729
OFF	ON	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 218	Adresse 730

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 219	Adresse 731
OFF	OFF	ON	ON	ON	OFF	ON	ON	OFF	Adresse 220	Adresse 732
ON	OFF	ON	ON	ON	OFF	ON	ON	OFF	Adresse 221	Adresse 733
OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	Adresse 222	Adresse 734
ON	ON	ON	ON	ON	OFF	ON	ON	OFF	Adresse 223	Adresse 735
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 224	Adresse 736
ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 225	Adresse 737
OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 226	Adresse 738
ON	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 227	Adresse 739
OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 228	Adresse 740
ON	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 229	Adresse 741
OFF	ON	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 230	Adresse 742
ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 231	Adresse 743
OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 232	Adresse 744
ON	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 233	Adresse 745
OFF	ON	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 234	Adresse 746
ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 235	Adresse 747
OFF	OFF	ON	ON	OFF	ON	ON	ON	OFF	Adresse 236	Adresse 748
ON	OFF	ON	ON	OFF	ON	ON	ON	OFF	Adresse 237	Adresse 749
OFF	ON	ON	ON	OFF	ON	ON	ON	OFF	Adresse 238	Adresse 750
ON	ON	ON	ON	OFF	ON	ON	ON	OFF	Adresse 239	Adresse 751
OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 240	Adresse 752
ON	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 241	Adresse 753
OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 242	Adresse 754
ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 243	Adresse 755
OFF	OFF	ON	OFF	ON	ON	ON	ON	OFF	Adresse 244	Adresse 756
ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	Adresse 245	Adresse 757
OFF	ON	ON	OFF	ON	ON	ON	ON	OFF	Adresse 246	Adresse 758
ON	ON	ON	OFF	ON	ON	ON	ON	OFF	Adresse 247	Adresse 759
OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	Adresse 248	Adresse 760
ON	OFF	OFF	ON	ON	ON	ON	ON	OFF	Adresse 249	Adresse 761
OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	Adresse 250	Adresse 762
ON	ON	OFF	ON	ON	ON	ON	ON	OFF	Adresse 251	Adresse 763
OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	Adresse 252	Adresse 764
ON	OFF	ON	ON	ON	ON	ON	ON	OFF	Adresse 253	Adresse 765
OFF	ON	ON	ON	ON	ON	ON	ON	OFF	Adresse 254	Adresse 766
ON	ON	ON	ON	ON	ON	ON	ON	OFF	Adresse 255	Adresse 767
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 256	Adresse 768
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 257	Adresse 769
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 258	Adresse 770
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 259	Adresse 771
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 260	Adresse 772
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 261	Adresse 773
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 262	Adresse 774
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 263	Adresse 775



CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 264	Adresse 776
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 265	Adresse 777
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 266	Adresse 778
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 267	Adresse 779
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 268	Adresse 780
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 269	Adresse 781
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 270	Adresse 782
ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 271	Adresse 783
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 272	Adresse 784
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 273	Adresse 785
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 274	Adresse 786
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 275	Adresse 787
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 276	Adresse 788
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 277	Adresse 789
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 278	Adresse 790
ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 279	Adresse 791
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 280	Adresse 792
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 281	Adresse 793
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 282	Adresse 794
ON	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 283	Adresse 795
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 284	Adresse 796
ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 285	Adresse 797
OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 286	Adresse 798
ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 287	Adresse 799
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 288	Adresse 800
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 289	Adresse 801
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 290	Adresse 802
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 291	Adresse 803
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 292	Adresse 804
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 293	Adresse 805
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 294	Adresse 806
ON	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 295	Adresse 807
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 296	Adresse 808
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 297	Adresse 809
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 298	Adresse 810
ON	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 299	Adresse 811
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 300	Adresse 812
ON	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 301	Adresse 813
OFF	ON	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 302	Adresse 814
ON	ON	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 303	Adresse 815
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 304	Adresse 816
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 305	Adresse 817
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 306	Adresse 818
ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 307	Adresse 819
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 308	Adresse 820

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 309	Adresse 821
OFF	ON	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 310	Adresse 822
ON	ON	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 311	Adresse 823
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 312	Adresse 824
ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 313	Adresse 825
OFF	ON	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 314	Adresse 826
ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 315	Adresse 827
OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	Adresse 316	Adresse 828
ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	Adresse 317	Adresse 829
OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	Adresse 318	Adresse 830
ON	ON	ON	ON	ON	ON	OFF	OFF	ON	Adresse 319	Adresse 831
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 320	Adresse 832
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 321	Adresse 833
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 322	Adresse 834
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 323	Adresse 835
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 324	Adresse 836
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 325	Adresse 837
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 326	Adresse 838
ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 327	Adresse 839
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 328	Adresse 840
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 329	Adresse 841
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 330	Adresse 842
ON	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 331	Adresse 843
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 332	Adresse 844
ON	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 333	Adresse 845
OFF	ON	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 334	Adresse 846
ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 335	Adresse 847
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 336	Adresse 848
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 337	Adresse 849
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 338	Adresse 850
ON	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 339	Adresse 851
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 340	Adresse 852
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 341	Adresse 853
OFF	ON	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 342	Adresse 854
ON	ON	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 343	Adresse 855
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 344	Adresse 856
ON	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 345	Adresse 857
OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 346	Adresse 858
ON	ON	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 347	Adresse 859
OFF	OFF	ON	ON	ON	OFF	ON	OFF	ON	Adresse 348	Adresse 860
ON	OFF	ON	ON	ON	OFF	ON	OFF	ON	Adresse 349	Adresse 861
OFF	ON	ON	ON	ON	OFF	ON	OFF	ON	Adresse 350	Adresse 862
ON	ON	ON	ON	ON	OFF	ON	OFF	ON	Adresse 351	Adresse 863
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 352	Adresse 864
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 353	Adresse 865

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 354	Adresse 866
ON	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 355	Adresse 867
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 356	Adresse 868
ON	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 357	Adresse 869
OFF	ON	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 358	Adresse 870
ON	ON	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 359	Adresse 871
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 360	Adresse 872
ON	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 361	Adresse 873
OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 362	Adresse 874
ON	ON	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 363	Adresse 875
OFF	OFF	ON	ON	OFF	ON	ON	OFF	ON	Adresse 364	Adresse 876
ON	OFF	ON	ON	OFF	ON	ON	OFF	ON	Adresse 365	Adresse 877
OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	Adresse 366	Adresse 878
ON	ON	ON	ON	OFF	ON	ON	OFF	ON	Adresse 367	Adresse 879
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 368	Adresse 880
ON	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 369	Adresse 881
OFF	ON	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 370	Adresse 882
ON	ON	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 371	Adresse 883
OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	Adresse 372	Adresse 884
ON	OFF	ON	OFF	ON	ON	ON	OFF	ON	Adresse 373	Adresse 885
OFF	ON	ON	OFF	ON	ON	ON	OFF	ON	Adresse 374	Adresse 886
ON	ON	ON	OFF	ON	ON	ON	OFF	ON	Adresse 375	Adresse 887
OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	Adresse 376	Adresse 888
ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	Adresse 377	Adresse 889
OFF	ON	OFF	ON	ON	ON	ON	OFF	ON	Adresse 378	Adresse 890
ON	ON	OFF	ON	ON	ON	ON	OFF	ON	Adresse 379	Adresse 891
OFF	OFF	ON	ON	ON	ON	ON	OFF	ON	Adresse 380	Adresse 892
ON	OFF	ON	ON	ON	ON	ON	OFF	ON	Adresse 381	Adresse 893
OFF	ON	ON	ON	ON	ON	ON	OFF	ON	Adresse 382	Adresse 894
ON	ON	ON	ON	ON	ON	ON	OFF	ON	Adresse 383	Adresse 895
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 384	Adresse 896
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 385	Adresse 897
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 386	Adresse 898
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 387	Adresse 899
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 388	Adresse 900
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 389	Adresse 901
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 390	Adresse 902
ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 391	Adresse 903
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 392	Adresse 904
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 393	Adresse 905
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 394	Adresse 906
ON	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 395	Adresse 907
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 396	Adresse 908
ON	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 397	Adresse 909
OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 398	Adresse 910

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 399	Adresse 911
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 400	Adresse 912
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 401	Adresse 913
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 402	Adresse 914
ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 403	Adresse 915
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 404	Adresse 916
ON	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 405	Adresse 917
OFF	ON	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 406	Adresse 918
ON	ON	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 407	Adresse 919
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 408	Adresse 920
ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 409	Adresse 921
OFF	ON	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 410	Adresse 922
ON	ON	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 411	Adresse 923
OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	Adresse 412	Adresse 924
ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	Adresse 413	Adresse 925
OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	Adresse 414	Adresse 926
ON	ON	ON	ON	ON	OFF	OFF	ON	ON	Adresse 415	Adresse 927
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 416	Adresse 928
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 417	Adresse 929
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 418	Adresse 930
ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 419	Adresse 931
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 420	Adresse 932
ON	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 421	Adresse 933
OFF	ON	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 422	Adresse 934
ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 423	Adresse 935
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 424	Adresse 936
ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 425	Adresse 937
OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 426	Adresse 938
ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 427	Adresse 939
OFF	OFF	ON	ON	OFF	ON	OFF	ON	ON	Adresse 428	Adresse 940
ON	OFF	ON	ON	OFF	ON	OFF	ON	ON	Adresse 429	Adresse 941
OFF	ON	ON	ON	OFF	ON	OFF	ON	ON	Adresse 430	Adresse 942
ON	ON	ON	ON	OFF	ON	OFF	ON	ON	Adresse 431	Adresse 943
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 432	Adresse 944
ON	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 433	Adresse 945
OFF	ON	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 434	Adresse 946
ON	ON	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 435	Adresse 947
OFF	OFF	ON	OFF	ON	ON	OFF	ON	ON	Adresse 436	Adresse 948
ON	OFF	ON	OFF	ON	ON	OFF	ON	ON	Adresse 437	Adresse 949
OFF	ON	ON	OFF	ON	ON	OFF	ON	ON	Adresse 438	Adresse 950
ON	ON	ON	OFF	ON	ON	OFF	ON	ON	Adresse 439	Adresse 951
OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	Adresse 440	Adresse 952
ON	OFF	OFF	ON	ON	ON	OFF	ON	ON	Adresse 441	Adresse 953
OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	Adresse 442	Adresse 954
ON	ON	OFF	ON	ON	ON	OFF	ON	ON	Adresse 443	Adresse 955

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	Adresse 444	Adresse 956
ON	OFF	ON	ON	ON	ON	OFF	ON	ON	Adresse 445	Adresse 957
OFF	ON	ON	ON	ON	ON	OFF	ON	ON	Adresse 446	Adresse 958
ON	ON	ON	ON	ON	ON	OFF	ON	ON	Adresse 447	Adresse 959
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 448	Adresse 960
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 449	Adresse 961
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 450	Adresse 962
ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 451	Adresse 963
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 452	Adresse 964
ON	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 453	Adresse 965
OFF	ON	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 454	Adresse 966
ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 455	Adresse 967
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 456	Adresse 968
ON	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 457	Adresse 969
OFF	ON	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 458	Adresse 970
ON	ON	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 459	Adresse 971
OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	Adresse 460	Adresse 972
ON	OFF	ON	ON	OFF	OFF	ON	ON	ON	Adresse 461	Adresse 973
OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	Adresse 462	Adresse 974
ON	ON	ON	ON	OFF	OFF	ON	ON	ON	Adresse 463	Adresse 975
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 464	Adresse 976
ON	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 465	Adresse 977
OFF	ON	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 466	Adresse 978
ON	ON	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 467	Adresse 979
OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON	Adresse 468	Adresse 980
ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	Adresse 469	Adresse 981
OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	Adresse 470	Adresse 982
ON	ON	ON	OFF	ON	OFF	ON	ON	ON	Adresse 471	Adresse 983
OFF	OFF	OFF	ON	ON	OFF	ON	ON	ON	Adresse 472	Adresse 984
ON	OFF	OFF	ON	ON	OFF	ON	ON	ON	Adresse 473	Adresse 985
OFF	ON	OFF	ON	ON	OFF	ON	ON	ON	Adresse 474	Adresse 986
ON	ON	OFF	ON	ON	OFF	ON	ON	ON	Adresse 475	Adresse 987
OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	Adresse 476	Adresse 988
ON	OFF	ON	ON	ON	OFF	ON	ON	ON	Adresse 477	Adresse 989
OFF	ON	ON	ON	ON	OFF	ON	ON	ON	Adresse 478	Adresse 990
ON	ON	ON	ON	ON	OFF	ON	ON	ON	Adresse 479	Adresse 991
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 480	Adresse 992
ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 481	Adresse 993
OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 482	Adresse 994
ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 483	Adresse 995
OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	Adresse 484	Adresse 996
ON	OFF	ON	OFF	OFF	ON	ON	ON	ON	Adresse 485	Adresse 997
OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	Adresse 486	Adresse 998
ON	ON	ON	OFF	OFF	ON	ON	ON	ON	Adresse 487	Adresse 999
OFF	OFF	OFF	ON	OFF	ON	ON	ON	ON	Adresse 488	Adresse 1000

CONFIGURATION DE L'ADRESSE (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	ON	OFF	ON	ON	ON	ON	Adresse 489	Adresse 1001
OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	Adresse 490	Adresse 1002
ON	ON	OFF	ON	OFF	ON	ON	ON	ON	Adresse 491	Adresse 1003
OFF	OFF	ON	ON	OFF	ON	ON	ON	ON	Adresse 492	Adresse 1004
ON	OFF	ON	ON	OFF	ON	ON	ON	ON	Adresse 493	Adresse 1005
OFF	ON	ON	ON	OFF	ON	ON	ON	ON	Adresse 494	Adresse 1006
ON	ON	ON	ON	OFF	ON	ON	ON	ON	Adresse 495	Adresse 1007
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	Adresse 496	Adresse 1008
ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	Adresse 497	Adresse 1009
OFF	ON	OFF	OFF	ON	ON	ON	ON	ON	Adresse 498	Adresse 1010
ON	ON	OFF	OFF	ON	ON	ON	ON	ON	Adresse 499	Adresse 1011
OFF	OFF	ON	OFF	ON	ON	ON	ON	ON	Adresse 500	Adresse 1012
ON	OFF	ON	OFF	ON	ON	ON	ON	ON	Adresse 501	Adresse 1013
OFF	ON	ON	OFF	ON	ON	ON	ON	ON	Adresse 502	Adresse 1014
ON	ON	ON	OFF	ON	ON	ON	ON	ON	Adresse 503	Adresse 1015
OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	Adresse 504	Adresse 1016
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	Adresse 505	Adresse 1017
OFF	ON	OFF	ON	ON	ON	ON	ON	ON	Adresse 506	Adresse 1018
ON	ON	OFF	ON	ON	ON	ON	ON	ON	Adresse 507	Adresse 1019
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	Adresse 508	Adresse 1020
ON	OFF	ON	ON	ON	ON	ON	ON	ON	Adresse 509	Adresse 1021
OFF	ON	ON	ON	ON	ON	ON	ON	ON	Adresse 510	Adresse 1022
ON	ON	ON	ON	ON	ON	ON	ON	ON	Adresse 511	Adresse 1023

Tab. 17



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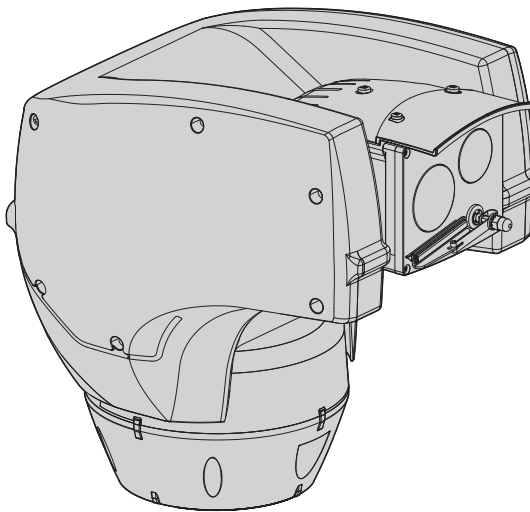
**MNVUCT\_1511\_FR**





# ULISSE COMPACT THERMAL

Outdoor PTZ Kamera Dual Vision, Day/Night-und  
Thermal, für voll Dunkelheit Überwachung





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# 1 Allgemeines


Lesen Sie bitte vor dem Installieren und dem Verwenden dieses Gerätes die Bedienungsanleitung sorgfältig durch. Bewahren Sie sie zum späteren Nachschlagen auf.


## 1.1 Schreibweisen

 **GEFAHR!**  
**Erhöhte Gefährdung.**  
**Stromschlaggefahr.** Falls nichts anderes angegeben, unterbrechen Sie die Stromversorgung, bevor die beschriebenen Arbeiten durchgeführt werden.

 **GEFAHR!**  
**Gefahr mechanischer Natur.**  
**Quetsch- oder Scherkantengefahr.**

 **GEFAHR!**  
**Heiße Oberfläche.**  
**Nicht berühren.** Die Oberflächen sind heiß und können bei Berührung zu Verbrennungen führen.

 **ACHTUNG!**  
**Mittlere Gefährdung.**  
**Der genannte Vorgang hat große Bedeutung für den einwandfreien Betrieb des Systems: es wird gebeten, sich die Verfahrensweise anzulesen und zu befolgen.**

 **ANMERKUNG**  
**Beschreibung der Systemmerkmale.**  
**Eine sorgfältige Lektüre wird empfohlen, um das Verständnis der folgenden Phasen zu gewährleisten.**


## 2 Anmerkungen zum Copyright und Informationen zu den Handelsmarken

Die angeführten Produkt- oder Firmennamen sind Handelsmarken oder eingetragene Handelsmarken.

Microsoft Internet Explorer®, Windows XP®, Windows Vista® sind Eigentum der Microsoft Corporation.

INTEL® Core™ 2 Duo, INTEL® Core™ 2 Quad, INTEL® Xeon® sind Eigentum der Intel Corporation.


# 3 Sicherheitsnormen


 **ACHTUNG! Die elektrische Anlage, an der die Einheit angeschlossen ist, muss mit einem automatischen zweipoligen Schutzschalter 20A max ausgestattet sein. Dieser Schalter muss vom Typ Listed sein. Zwischen den Kontakten muss mindestens ein Abstand von 3mm vorhanden sein. Der Schalter muss eine Schutzeinrichtung gegen Erde Fehlerstrom (Differenzial) und gegen Überstrom haben (magnetothermisch).**

 **ACHTUNG! Gefährliche Loseile. Finger und andere Körperteile fernhalten.**

 **ACHTUNG! Die Installation und Wartung der Vorrichtung ist technischen Fachleuten vorbehalten.**

 **ACHTUNG! Die Anlage gehört zum Typ TNV-1. Nicht an Kreisläufe SELV anschließen.**

 **ACHTUNG! Damit ein ständiger Brandschutz garantiert wird, sind die Sicherungen nur in dem gleichen Typ und Wert zu ersetzen. Die Sicherungen sind nur von Fachleuten zu ersetzen.**

 **ACHTUNG! Zur Senkung der Brandgefahr dürfen nur UL Listed oder CSA zertifizierte Kabel benutzt werden, die mindestens der Größe 0.13mm<sup>2</sup> (26 AWG) entsprechen.**

- Der Hersteller lehnt jede Haftung für eventuelle Schäden ab, die aufgrund unsachgemäßer Anwendung der in diesem Handbuch erwähnten Geräte entstanden ist. Ferner behält er sich das Recht vor, den Inhalt ohne Vorkündigung abzuändern. Die Dokumentation in diesem Handbuch wurde sorgfältig ausgeführt und überprüft. Der Hersteller kann dennoch keine Haftung für die Verwendung übernehmen. Dasselbe gilt für jede Person oder Gesellschaft, die bei der Schaffung oder Produktion von diesem Handbuch miteinbezogen ist.
- Unterbrechen Sie die Stromversorgung, bevor die beschriebenen Arbeiten durchgeführt werden.
- Es dürfen keine Kabel mit Verschleiß- oder Alterungsspuren verwendet werden.
- Unter keinen Umständen dürfen Veränderungen oder Anschlüsse vorgenommen werden, die in diesem Handbuch nicht genannt sind. Der Gebrauch ungeeigneten Geräts kann die Sicherheit des Personals und der Anlage schwer gefährden.
- Es dürfen nur Original-Ersatzteile verwendet werden. Nicht originale Ersatzteile können zu Bränden, elektrischen Entladungen oder anderen Gefahren führen.
- Vor der Installation ist anhand des Kennzeichnungsschildes nachzuprüfen, ob das gelieferte Material die gewünschten Eigenschaften (4.2 Kennzeichnung des Produkts, Seite 10).
- Die Einrichtung ist für den dauerhaften Einbau in ein Gebäude oder eine andere geeignete Struktur konzipiert. Vor jeder Operation muss die Einrichtung dauerhaft eingebaut werden.
- Die Installationskategorie (auch als Überspannungskategorie bezeichnet) gibt den Pegel der Netzspannungsstöße an, denen die Ausrüstung ausgesetzt ist. Die Kategorie hängt vom Installationsort der Ausrüstung und von den externen Schutzeinrichtungen gegen Spannungsstöße ab. Ausrüstungen in einer gewerblichen Umgebung, die direkt mit den Hauptzweigen der Versorgungsanlage verbunden sind, gehören zur Installationskategorie III. In diesem Fall ist eine Abstufung auf Installationskategorie II erforderlich. Dies kann durch den Einsatz eines Isoliertransformators mit einem geerdeten Schirm zwischen Primär- und Sekundärwicklung erreicht werden. Alternativ können UL-gelistete Überspannungsschutzvorrichtungen (SPD) von Fase zu Nullleiter und von Nullleiter zur Erde geführt werden. UL-gelistete Überspannungsschutzvorrichtungen sind für die wiederholte Begrenzung kurzzeitig auftretender Spannungsspitzen und für die folgenden nominellen Betriebsbedingungen auszulegen: Typ 2 (Dauerhaft angeschlossene Überspannungsschutzvorrichtungen für die Installation auf der Ladungsseite der Hilfseinrichtung); Nennentladestrom (In) 20kA min. Benutzt werden können beispielsweise: FERRAZ SHAWMUT, STT2240SPG-CN, STT2BL240SPG-CN, spezifiziert für 120Vac/240Vac, (In=20kA). Der maximale Abstand zwischen dem Einbau und der Abkürzung ist 5m.
- Lediglich für die Produkte mit UL - Markierung mit 24Vac - Versorgung ein UL - Speisetransformator der Klasse 2 verwenden, welches den geltenden Richtlinien entspricht.
- Eine sofort und problemlos zugängliche Abtrennvorrichtung muss in die Elektroanlage des Gebäudes eingebaut werden, um einen schnellen Eingriff zu garantieren.
- Der im Gerät verfügbare Erdungsanschluss muss ständig geerdet sein.



- Vorgeschrieben ist der Anschluss an eine Versorgungsquelle, deren Eigenschaften den Angaben auf dem Kennzeichnungsschild entsprechen. Vor der Installation ist zu prüfen, ob die Stromleitung sachgerecht abgetrennt ist. Die Versorgungsspannung darf die Toleranzen ( $\pm 10\%$ ) nicht überschreiten.
- Die Einrichtung darf nur mit größter Vorsicht transportiert werden. Ruckartige Haltemanöver, Höhenunterschiede und starke Aufpralle können das Objekt beschädigen oder den Benutzer verletzen.
- Um die Vorschriften über Spannungseinbrüche und -abschaltungen einzuhalten, benutzen Sie bitte eine unterbrechungsfreie Stromversorgung (USV).
- Die Einrichtung ist so zu montieren, dass sie für keine andere Person als den Techniker oder Installateur zugänglich ist. Da sie mit beweglichen Teilen ausgestattet ist, bleibt ein Restrisiko, sich an den Bewegungselementen zu verletzen.
- Bringen Sie das Schildchen Gefährliche Bewegungsteile in der Nähe der Einrichtung an. ( Abb. 2, Seite 11).
- Das Gerät nicht in der Nähe entzündlicher Stoffe benutzen.
- Kindern oder unbefugten Personen ist der Gebrauch des Gerätes zu untersagen.
- Das Gerät gilt erst dann als deaktiviert, wenn die Stromversorgung ausgeschaltet und die Verbindungskabel zu den anderen Einrichtungen entfernt worden sind.
- Die Wartung der Einrichtung ist Fachleuten vorbehalten. Während der Wartungsarbeiten ist die tätige Person der Gefahr von Stromschlägen und anderen Gefahren ausgesetzt.
- Verwenden Sie nur vom Hersteller empfohlenes Zubehör. Jede vom Hersteller nicht ausdrücklich genehmigte Veränderung führt zum Verfall der Gewährleistungsrechte.
- Erden Sie das Koaxialkabel.
- Vor dem Anschluss sämtlicher Signalkabel ist zu prüfen, ob die Einrichtung sachgerecht mit dem Erdungskreis verbunden ist.
- Wenn die Einrichtung von der Anlage getrennt werden muss, ist das Erdungskabel stets zuletzt abzuklemmen.
- Vermeiden Sie durch gebotene Vorkehrungen, dass das Gerät durch elektrostatische Entladungen beschädigt wird.
- Die Einheit ist dafür ausgelegt, über ein dreipoliges Kabel angeschlossen zu werden. Folgen Sie den Anleitungen in diesem Handbuch für den korrekten Anschluss des Erdungskreises.
- Die Einrichtung ist vorsichtig zu handhaben, starke mechanische Beanspruchungen könnten sie beschädigen.
- Achten Sie besonders auf die Isolierabstände zwischen der Versorgungsleitung und allen anderen Kabeln einschließlich der Vorrichtungen zum Schutz gegen Blitzschlag.

## 4 Identifizierung

### 4.1 Beschreibung und Bezeichnung des Produktes

Die Videokamera PTZ ULISSE COMPACT THERMAL bietet eine ausgezeichnete integrierte Lösung für eine wirksame Überwachung auch in vollkommener Dunkelheit oder unter extremen Umgebungsbedingungen, Nebel, Regen, Rauch bzw. bei großen Entfernungen.

Die Einheit integriert eine ausgerichtete Video- und eine thermische Kamera mit unabhängigem Betrieb der zwei Videoflüsse.

Die Day/Night Videokamera ist in der Lage, das Ziel unter normalen Lichtbedingungen klar zu erkennen, die thermische Sicht erlaubt dagegen das Erfassen von Personen und Ereignissen in vollkommener Dunkelheit bzw. bei dichtem Rauch oder Nebel.

Die Verwendung dieser Lösung ist besonders in kritischen Anwendungen nützlich, in denen eine konstante und zuverlässige Nonstop-Überwachung eines Outdoor-Bereichs und ein unfehlbares Erhebungssystem von Ereignissen und Präsenzen erforderlich ist, das keine Instandhaltungseingriffe benötigt.

Die sorgfältige Topmount-Konstruktion erlaubt die Sicht über den Horizont hinaus und die kontinuierliche Rotation auf der horizontalen Achse und verbindet hohe Geschwindigkeit mit einer absoluten Ausrichtungsgenauigkeit im manuellen Betrieb und auch beim Rundgang.

## 4.2 Kennzeichnung des Produkts

**i** Auf den Schwenk-Neige-Köpfen befindet sich ein Schildchen, das der CE-Kennzeichnung entspricht.

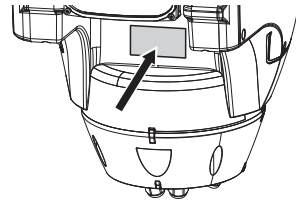


Abb. 1

Das Schildchen nennt:

- Identifizierungscode des Modells (Strichcode Extended 3/9).
- Versorgungsspannung (Volt).
- Frequenz (Hertz).
- Stromaufnahme (Ampere).
- Schutzart (IP).
- Seriennummer.

### 4.2.1 Prüfung der Kennzeichnung

Vor Beginn der Installationsarbeiten ist zu kontrollieren, ob das gelieferte Material den jeweiligen Anforderungen entspricht. Zu erkennen ist dies anhand der Kennzeichnungsschilder.

Unter keinen Umständen dürfen Veränderungen oder Anschlüsse vorgenommen werden, die in diesem Handbuch nicht genannt sind. Der Gebrauch ungeeigneten Geräts kann die Sicherheit des Personals und der Anlage schwer gefährden.

## 5 Vorbereitung des Produktes auf den Gebrauch

 Jede vom Hersteller nicht ausdrücklich genehmigte Veränderung führt zum Verfall der Gewährleistungsrechte.

### 5.1 Sicherheitsvorkehrungen vor dem Gebrauch


 Das Gerät umfasst bewegliche Teile. Stellen Sie sicher, dass die Einheit an einer Stelle positioniert wird, die unter normalen Betriebsbedingungen nicht zugänglich ist. Bringen Sie das im Lieferumfang des Gerätes enthaltene Schildchen in der Nähe des Objektes an gut sichtbarer Stelle an.



Abb. 2

### 5.2 Entfernen der Verpackung

Bei der Lieferung des Produktes ist zu prüfen, ob die Verpackung intakt ist oder offensichtliche Anzeichen von Stürzen oder Abrieb aufweist.

Bei offensichtlichen Schadensspuren an der Verpackung muss umgehend der Lieferant verständigt werden.

Bewahren Sie die Verpackung auf für den Fall, dass das Produkt zur Reparatur eingeschendet werden muss.

### 5.3 Inhalt

Prüfen Sie, ob der Inhalt mit der nachstehenden Materialliste übereinstimmt:

- Positionierungseinheit
- Zubehör Schachtel
- Serielles Verlängerungskabel
- Schildchen
- Silikonummantelung
- Kabelbinder
- Bedienungsanleitung

### 5.4 Sichere Entsorgung der Verpackungsmaterialien

Die Verpackungsmaterialien sind vollständig wiederverwertbar. Es ist Sache des Installationstechnikers, sie getrennt, auf jeden Fall aber nach den geltenden Vorschriften des Anwendungslandes zu entsorgen.

Im Falle der Rückgabe des nicht korrekt funktionierenden Produktes empfiehlt sich die Verwendung der Originalverpackung für den Transport.

## 5.5 Auf die Installation vorbereitende Tätigkeiten

### 5.5.1 Befestigung der Halterung

Verschiedene Halterungen sind (9 Zubehör, Seite 48). Das geeignetste für die Installation auswählen und alle Angaben aus diesem Kapitel befolgen.

**! Besondere Aufmerksamkeit verlangen die Befestigungssysteme des Gerätes. Soll das Gerät an einer Betonfläche fixiert werden, müssen Dübel verwendet werden, deren Zugmoment jeweils mindestens 300dN beträgt. Ist die Fläche aus Metall, verwenden Sie Schrauben angemessener Länge mit einem Minstdurchmesser von 8mm. Das Befestigungssystem muss in jedem Fall in der Lage sein, mindestens das 4 fache Gewicht der gesamten Appartur mitsamt S-N-Kopf, Linsen und Kamera zu tragen.**

**! Die Einrichtung muss in senkrechter Lage montiert werden. Jede andere Stellung könnte die Leistungen des Gerätes beeinträchtigen.**

### 5.5.2 Kabelführung

**! Die Verbindungskabel dürfen von außen nicht zugänglich sein. Die Kabel müssen gegen Lösen durch Abziehen sachgerecht am Träger fixiert werden, damit es verhindert wird, dass es durch das hohe Gewicht unbeabsichtigt abgezogen wird.**

**! Die verwendeten Kabel müssen der Anlagenart angemessen sein.**

Die Kabel so in die Halterung einführen, dass sie ungefähr 50cm hervorschauen.

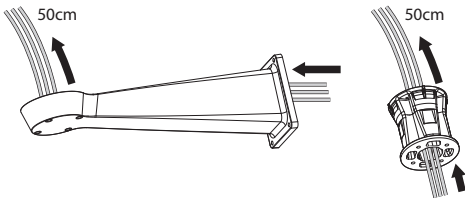


Abb. 3

## 6 Installation

**! Unter keinen Umständen dürfen Veränderungen oder Anschlüsse vorgenommen werden, die in diesem Handbuch nicht genannt sind. Die Missachtung der Angaben, die das Handbuch zu den Anschlüssen macht, kann die Sicherheit von Personen und die Sicherheit der Anlage stark gefährden.**

**! Die Vorverkabelungen des Produktes dürfen nicht verändert werden. Die Missachtung dieses Verbotes kann die Sicherheit des Personals und der Anlage stark gefährden und führt sie zum Verlust der Gewährleistungsrechte.**

**i Bewahren Sie ein Anschlussbild für die zukünftige Einsichtnahme auf.**

### 6.1 Anschließen der Kabel an die Basis

Die Kabel in den Kabelschellen einführen, während die Basis etwa 20cm von der Halterung entfernt gehalten wird. Die Kabelverschraubungen festziehen. Alle Kabelverschraubungen sind für Kabel mit einem Durchmesser von 5mm bis 10mm geeignet.

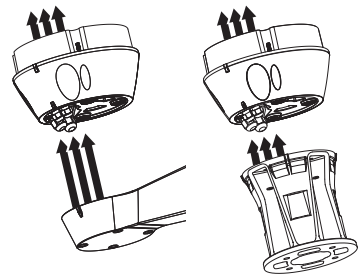


Abb. 4

## 6.2 Befestigung der Basis an der Halterung



Verwenden Sie die mit der Basis gelieferten Schrauben und Unterlegscheiben.

Nach der Positionierung der Dichtung (01) muss die Basis (02) auf der Halterung (03) befestigt werden. Verwenden Sie dazu die Schrauben (04), die Zahnscheiben (05) und die flachen Unterlegscheiben (06). Die O-Ringe gegen Schraubenverlust (06) einfügen.

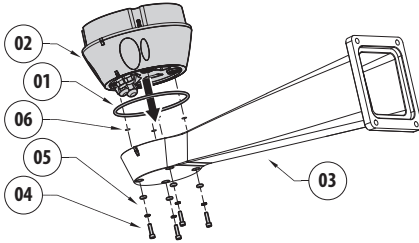


Abb. 5

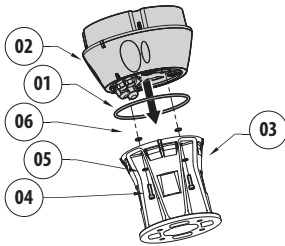


Abb. 6

Die 3 Markierungen auf der Basis an den Markierungen auf den Halterungen ausrichten, wie in der folgenden Abbildung dargestellt.

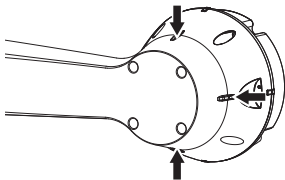


Abb. 7



Auf das Loch der Schrauben ein Gewindegewissungsmittel auftragen (Loctite 243®).



Auf die Befestigung achten. Anzugsdrehmoment: 4Nm.

## 6.3 Anschluss der Verbinderplatine

### 6.3.1 Beschreibung der Karte Anschlüsse

#### BESCHREIBUNG DER KARTE

Verbinder	Funktion
J2	Stromversorgung
J5/J7	Video Ausgang
J10	Telemetrieleitungen

Tab. 1

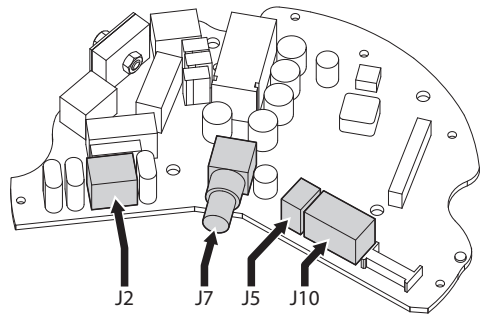


Abb. 8

### 6.3.2 Anschluss der Stromversorgung



Die elektrischen Anschlüsse nur durchführen, wenn die Stromversorgung abgetrennt und die Trennvorrichtung offen ist.



Im Zuge der Installation ist zu prüfen, ob die Merkmale der von der Anlage bereitgestellten Versorgung mit den erforderlichen Merkmalen der Einrichtung übereinstimmen.



Das Erdungskabel muss um etwa 10mm länger sein, als die anderen beiden Kabel, um das ungewollte Lösen durch Ziehen des Kabels zu verhindern.



Es ist zu prüfen, ob die Versorgungsquellen und die Anschlusskabel für den Systemverbrauch ausgelegt sind.



Ferner muss das Versorgungskabel von einer Silikonummantelung (01) überzogen sein, die im Lieferumfang enthalten ist. Die Silikonummantelung soll mit dem zugehörigen Binder fixiert werden (02).

Je nach Version kann die Vorrichtung mit unterschiedlichen Versorgungsspannungen geliefert werden. Der Wert ist auf dem Kennzeichnungsschild des Produktes angegeben (4.2 Kennzeichnung des Produktes, Seite 10).

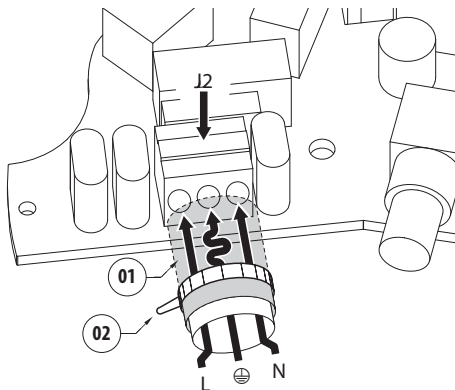


Abb. 9

Die Versorgungskabel sind der J2 Klemme nach der Tabelle anzuschließen.

ANSCHLUSS DER STROMVERSORGUNG	
Farbe	Klemmen
<b>Netzteil 24Vac</b>	
Vom Installateur festgelegt.	N (Nullleiter)
Vom Installateur festgelegt.	L (Phase)
Gelb/Grün	GND
<b>Netzteil 230Vac</b>	
Blau	N (Nullleiter)
Braun	L (Phase)
Gelb/Grün	GND
<b>Netzteil 120Vac</b>	
Blau	N (Nullleiter)
Braun	L (Phase)
Gelb/Grün	GND

Tab. 2



Lediglich für die Produkte mit UL - Markierung mit 24Vac - Versorgung ein UL - Speisetransformator der Klasse 2 verwenden, welches den geltenden Richtlinien entspricht.



Für den Anschluss der Versorgungsleitung den entsprechenden Anschlusskasten verwenden (UPTJBUL). Für weitere Informationen siehe Bedienungs- und Installationshandbuch des Produktes.

## 6.4 Anschluss der sekundären Steckerkarte

**! Alle Signalkabel mit einem Kabelbinder müssen zusammengefasst werden.**

### 6.4.1 Beschreibung der sekundären Karte

BESCHREIBUNG DER KARTE	
Verbinder	Funktion
CN1/CN2	Relais und Alarm
CN3	Sekundären Videoausgangs
CN4	Steuerung der Wärmebildkamera
DS1	Videoformat Auswahl/Abschluss der seriellen Leitung

Tab. 3

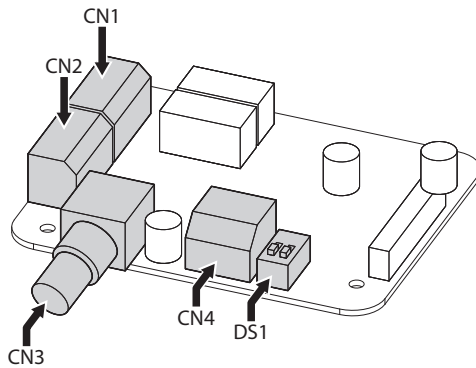


Abb. 10 Leiterplatte für Alarm und Relais.

### 6.4.2 Anschluss der Alarmeingänge

Im Falle von Alarm mit potentialfreiem Kontakt muss der Anschluss gemäß der Abb. durchgeführt werden.

Die Kontakte der Alarme befinden sich am Verbinder (CN1-CN2).

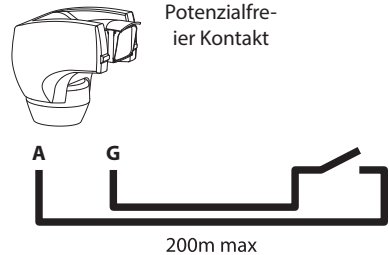


Abb. 11

Der potentialfreie Kontakt kann vom Typ NO (normalerweise offen) oder vom Typ NC (normalerweise geschlossen) sein.

Alle Alarme haben eine Reichweite von etwa 200m, die sich mit einem nicht abgeschirmten Kabel eines Mindestquerschnitts von 0.25mm<sup>2</sup> (24 AWG) erzielen lässt.

### 6.4.3 Anschluss der Relais

**! Die Relais können nur für niedrige Betriebsspannungen (bis zu 30Vac oder 60Vdc) verwendet werden und mit einem Höchststrom von 1A. Kabel mit einem für die Last geeignetem Querschnitt verwenden, und zwar zwischen einem Minimum von 0.25mm<sup>2</sup> (24 AWG) und einem Maximum von 1.5mm<sup>2</sup> (16 AWG).**

Die Klemmen des Relais sind am entsprechenden Anschluss vorhanden: Relais und Alarm (6.4.1 Beschreibung der sekundären Karte, Seite 15).

Die Relais sind nicht gepolt, sodass es keine Rolle spielt, ob Klemme A oder B desselben Relais für Wechsel- oder Gleichspannungen benutzt wird.

ANSCHLUSS DER RELAIS	
Klemme	Beschreibung
R1A	Relais 1, Klemme A
R1B	Relais 1, Klemme B
R2A	Relais 2, Klemme A
R2B	Relais 2, Klemme B

Tab. 4

**i Für weitere Infos bitte entsprechendes Kapitel beachten (8.1.12.1 Menü Alarme, Seite 40).**

## 6.5 Anschluss von einem oder mehrerer Videokabel



Die Anlage gehört zum Typ CDS (Cable Distribution System). Nicht an Kreisläufe SELV anschließen.

### 6.5.1 Anschluss Hauptvideo

Das Videosignal liegt an den Steckverbindern J5 und J7 der Karte an. Verwenden Sie stets nur einen Steckverbinder.

**Verbinder J5:** Die Abschirmung und das Zentralkabel an die Klemmen GND und CVBS anschließen.

**Verbinder J7:** Das Koaxialkabel an die Buchse BNC (nicht im Lieferumfang enthalten), dann an die Buchse J7 anschließen.

Die Klemmen können Kabel mit Querschnitten zwischen 1,5mm<sup>2</sup> (16 AWG) und 0,5mm<sup>2</sup> (30 AWG) aufnehmen.

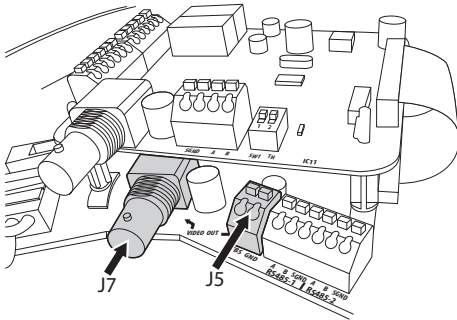


Abb. 12

### 6.5.2 Anschluss Sekundärvideo

Das Koaxialkabel an die Buchse BNC (nicht im Lieferumfang enthalten), dann an die Buchse CN3 anschließen.

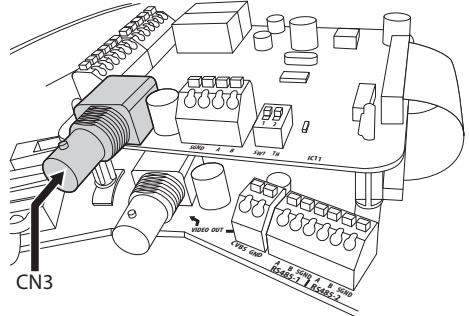


Abb. 13

### 6.5.3 Videosignalausgang (Version mit Doppelkamera)

Beschreibung der Videoausgänge:

- **Hauptvideo:** Der Ausgang wird benutzt, um das Videosignal des integrierten Moduls zu übertragen (Stecker J5, J7).
- **Sekundärvideo:** Der Ausgang wird benutzt, um das Videosignal des thermischen Moduls zu übertragen (Verbinder CN3)

### 6.5.4 Anschluss des Videokabels (Versionen mit nur einer Wärmebildkamera)

Beschreibung der Videoausgänge:

- **Hauptvideo:** Bei allen Modellen mit nur einer Wärmebildkamera wird der Hauptvideoausgang benutzt, um das Videosignal der Wärmebildkamera zu übertragen (Stecker J5, J7).
- **Sekundärvideo:** Das sekundäre Videosignal wird nicht benutzt (Verbinder CN3)



## 6.6 Anschluss der Leitung für die Direktsteuerung der Wärmebildkamera RS-485-3 (nur Versionen mit Doppelkamera)

Die Wärmebildkamera kann von außen über die serielle Leitung gesteuert werden (CN4, 8.1.16 Menü Wärmebildkamera, Seite 42).

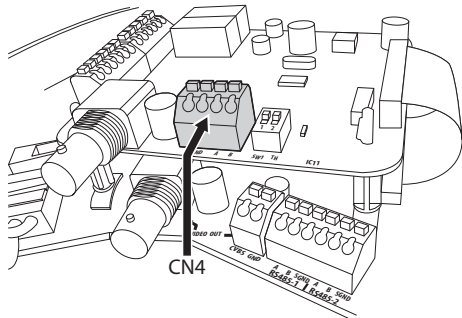


Abb. 14

## 6.7 Einstellung des DS1 Videoformats (nur Versionen mit Wärmebildkamera)

Dipschalter 1 ist dazu bestimmt, das Videoformat für das ausgehende Videosignal einzustellen.

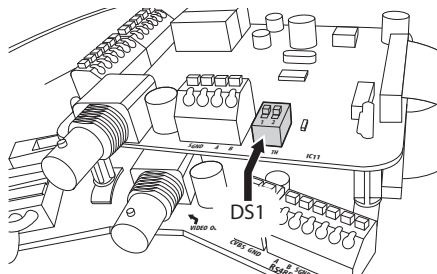


Abb. 15

CONFIGURATION DER VIDEO UND TELEMETRIE (DS1)			
Beschreibung	SW1	SW2	Konfiguration
Format des Videosignals	On	–	PAL Video Format
	Off	–	NTSC Video Format

Tab. 5

## 6.8 Beschaltung der seriellen Leitung RS-485-3 mit Abschlusswiderstand (DS1)

Mit Dipschalter 2 wird die Beschaltung der seriellen Leitung mit einem Abschlusswiderstand (120 Ohm) aktiviert.

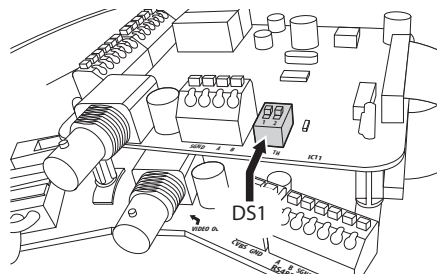


Abb. 16

CONFIGURATION DER VIDEO UND TELEMETRIE (DS1)			
Beschreibung	SW1	SW2	Konfiguration
Abschluss der seriellen Leitung	–	On	Endung RS-485-3 frei
	–	Off	Abschluss RS-485-3 deaktiviert

Tab. 6

## 6.9 Anschluss der Waschanlage.

**i** Für weitere Details zur Konfiguration und zum Gebrauch beachten Sie bitte das Handbuch des entsprechenden Geräts.

**i** Bei der Freigabe der Waschanlage wird das Relais 2 ausschliesslich für die Inbetriebnahme der Pumpe benutzt (8.1.13 Menü Waschanlage, Seite 41).

## 6.10 Befestigung des oberen Körpers

Den selbstzentrierenden Steckverbinder (01) der oberen Einheit ausrichten. Den seitlichen Überstand (02) in die Blickrichtung der Videokamera ausrichten. Die obere Einheit auf der Basis mit der Ausrichtung positionieren, wie in der Abbildung gezeigt.

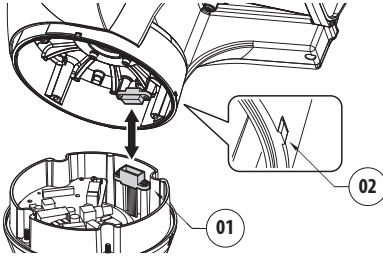


Abb. 17

Auf diese Weise sind die seitlichen Überstände auf der Basis und der oberen Einheit in der einzig möglichen Position ausgerichtet.

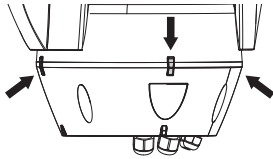


Abb. 18

Die obere Einheit (01) mit den Befestigungsschrauben (03), den Zahnscheiben (04) und den Flachscheiben (05) an der Basis (02) fixieren. Prüfen Sie, ob die Dichtung der Basis (06) vorhanden und in gutem Zustand ist.

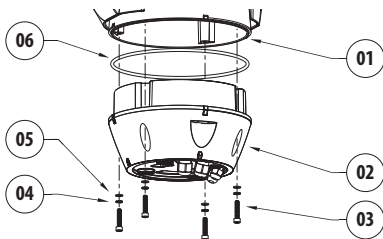


Abb. 19

**!** Auf das Loch der Schrauben ein Gewindesicherungsmittel des Typs Loctite 243® auftragen.

**!** Auf die Befestigung achten. Anzugsdrehmoment: 4Nm.

## 6.11 Hardware Konfiguration

### 6.11.1 Öffnen der Konfigurationsklappe

Bevor die Einrichtung mit Strom versorgt wird, muss sie richtig mit den Dipschaltern innerhalb des Konfigurierungsklappchens konfiguriert werden. Das Konfigurierungsklappchen wird durch Entfernen der Schrauben geöffnet, wie in der Abbildung gezeigt.

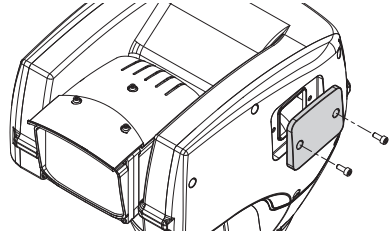


Abb. 20

## 6.11.2 Vorgabe des Einstellungsprüfmodus (DIP 1)

SW 1=ON: Anzeige Konfiguration. Nur verwenden, um die Konfiguration nach Vornahme der Einstellungen zu prüfen. Während des normalen Betriebes ist sicherzustellen, dass der kleine Hebel auf OFF steht (SW 1=OFF).

## 6.11.3 Baud rate-Konfiguration

### Zur Festlegung der Baud Rate eingreifen auf DIP 1.

Die Switch 4, 3 und 2 werden benutzt, um die Kommunikationsgeschwindigkeit der Einrichtung wählen.

BAUD RATE-KONFIGURATION (DIP 1)						
Beschreibung	SW 1	SW 2	SW 3	SW 4	SW 5-6-7-8	Konfiguration
Auswahl Baudrate	-	ON	ON	ON	-	38400 baud
	-	OFF	ON	ON	-	19200 baud
	-	ON	OFF	ON	-	9600 baud
	-	OFF	OFF	ON	-	4800 baud
	-	ON	ON	OFF	-	2400 baud
	-	OFF	ON	OFF	-	1200 baud
	-	ON	OFF	OFF	-	600 baud
	-	OFF	OFF	OFF	-	300 baud
Visualisierung Konfigurationen	ON	-	-	-	-	Visualisierung aktiviert
	OFF	-	-	-	-	Visualisierung deaktiviert

Tab. 7

## 6.11.4 Die Leitungen der seriellen Datenübertragung konfigurieren

### Zur Festlegung der seriellen Übertragungsleitungen eingreifen auf DIP 1.

Das Produkt sieht folgenden serielle Datenaustauschlinien vor:

- RS-485: 2 Linien

Die Konfiguration der seriellen Linien ist durch folgende Dip-Switch durchzuführen:

- DIP 1: SW 5-SW 6

DIE LEITUNGEN DER SERIELLEN DATENÜBERTRAGUNG KONFIGURIEREN (DIP 1)					
Beschreibung	SW 1-2-3-4	SW 5	SW 6	SW 7-8	Konfiguration (siehe entsprechende Kapitel)
Serielle Leitungen	-	ON	ON	-	Leitung RS-485 TX/RX bidirektional
	-	OFF	ON	-	Leitung 1 RS-485 Empfang, Leitung 2 RS-485 Wiederholung
	-	ON	OFF	-	Leitung RS-422 bidirektional
	-	OFF	OFF	-	Leitung RS-485 mono-direktional
	-	ON	ON	-	Leitung RS-485 TX/RX bidirektional

Tab. 8

### 6.11.4.1 Leitung RS-485 TX/RX bidirektional

Diese Einstellung gestattet eine beidseitig gerichtete Half-Duplex-Übertragung auf der Leitung RS-485-1.

Die serielle Leitung RS-485-2 ist nicht benutzt.

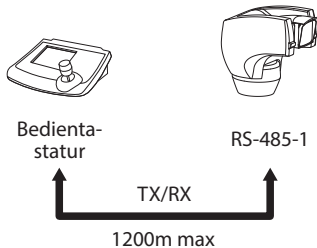


Abb. 21

### 6.11.4.2 Leitung 1 RS-485 Empfang, Leitung 2 RS-485 Wiederholung

Bei dieser Einstellung können mehrere Einrichtungen kaskadiert angeschlossen werden. Das Signal wird von jeder Einheit regeneriert und ist dadurch über eine erheblich größere Distanz übertragbar.

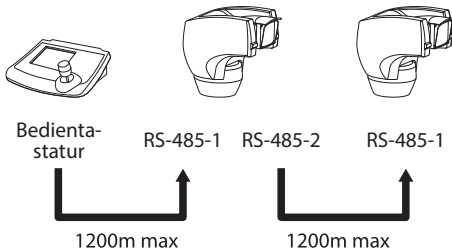


Abb. 22

**i** Diese Konfiguration kann nur mit Ein-Weg-Protokollen verwendet werden.

**i** In dieser Konfiguration lässt sich das Update der Firmware nicht von fern vornehmen.

### 6.11.4.3 Leitung RS-422 bidirektional

Diese Einstellung gestattet die Full-Duplex-Kommunikation nach dem Standard RS-422.

La ligne RS-485-1 est toujours en réception (RS-422-RX).

La ligne RS-485-2 est toujours en transmission (RS-422-TX).

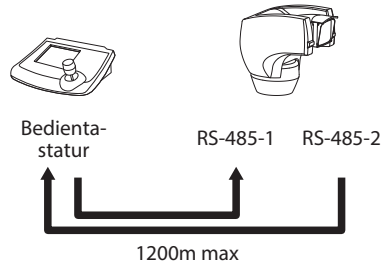


Abb. 23

### 6.11.4.4 Leitung RS-485 monodirektional

Die erste Leitung (RS485-1) arbeitet mit den Einstellungen, die mit Hilfe der Dipschalter Adresse, Baudrate und Protokoll vorgegeben werden.

Die Leitung RS-485-2 wird nicht benutzt.

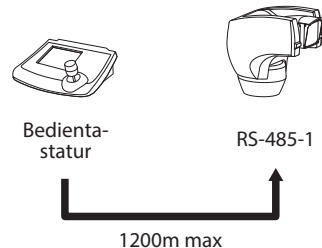


Abb. 24

**i** Diese Konfiguration kann nur mit Ein-Weg-Protokollen verwendet werden.

**i** In dieser Konfiguration lässt sich das Update der Firmware nicht von fern vornehmen.

### 6.11.5 Abschließens serieller Leitungen

#### Zur Festlegung des Abschließens serieller Leitungen eingreifen auf DIP 1.

Auf der Platine befinden sich zwei Dip-Switches für die Konfiguration der Terminierung (120 Ohm) der seriellen Linie (Tab. 9, Seite 21).

Jede Peripherieeinheit, die am Leitungsende hängt, muss mit dem zugehörigen Dipschalter mit einem Abschlusswiderstand beschaltet werden, um zu vermeiden, dass entlang der Leitung Reflexionen und Deformationen auftreten.

ABSCHLIESSENS SERIELLER LEITUNGEN (DIP 1)				
Beschreibung	SW 1-2-3-4-5-6	SW 7	SW 8	Konfiguration
Abschließens serieller Leitungen	-	-	ON	Linie RS-485-2, Abschluss aktiviert
	-	-	OFF	Linie RS-485-2, Abschluss deaktiviert
	-	ON	-	Linie RS-485-1, Abschluss aktiviert
	-	OFF	-	Linie RS-485-1, Abschluss deaktiviert

Tab. 9

### 6.11.6 Konfiguration des Protokoll



**Für Ausführungen mit digitalem Video-Encoder muss das Protokoll auf NETWORK eingestellt werden..**

#### Zur Festlegung des Protokolls eingreifen auf DIP 3.

Der Schwenk-Neige-Kopf kann mit den verschiedenen Protokollen gesteuert werden.

KONFIGURATION DES PROTOKOLL (DIP 3)				
SW 1	SW 2	SW 3	SW 4	Konfiguration
OFF	ON	OFF	OFF	AMERICAN DYNAMICS
OFF	OFF	ON	OFF	ERNITEC
OFF	ON	ON	OFF	NETWORK
ON	OFF	ON	OFF	PANASONIC
ON	OFF	OFF	OFF	PELCO D
OFF	OFF	OFF	OFF	VIDEOTEC MACRO

Tab. 10

### 6.11.7 Adressekonfiguration

#### Zur Festlegung der Adresse eingreifen auf DIP 2.

Als S-N-Kopf-Adresse lassen sich vorgeben: von 1 a 1023. Die Vorgabe der Adresse erfolgt nach dem Binärcode mit Hilfe der Dipschalter (A Anhang - Adressentabelle, Seite 65).

## 7 Einschaltung



Der automatische Vorheizvorgang (De-Ice) könnte immer dann aktiviert werden, wenn das Gerät bei einer Umgebungstemperatur von unter 0°C in Betrieb genommen wird. Dieser Vorgang dient dazu, auch bei niedrigen Temperaturen den einwandfreien Betrieb der Einrichtungen sicherzustellen. Die Dauer liegt je nach Bedingungen zwischen 60 und 120 Minuten.

Für das Einschalten der Einheit die elektrische Versorgung anzulegen.

Die elektrische Versorgung abtrennen, um die Einheit abzuschalten.

### 7.1 Erstes Einschalten



**Sicherstellen, das die Einheit und die anderen Bauteile der Anlage korrekt geschlossen sind, um den Kontakt mit unter Spannung stehenden Bauteilen zu verhindern.**



**Vergewissern Sie sich, dass alle Teile solide und zuverlässig befestigt sind.**

Beim erstmaligen Einschalten ist es stets zweckmäßig, die korrekte Konfiguration der Einrichtung zu überprüfen.

Dazu ist es notwendig, die Stromversorgung zu unterbrechen. Dann die Schutzklappe über den Dipschaltern entfernen und den Hebel des Dipschalters für die Anzeige Konfiguration (DIP1, SW1) auf ON setzen.

Die Vorrichtung versorgen. Nach einigen Sekunden kann am Monitor die eingestellte Konfiguration überprüft werden..

Nach Abschluss der Überprüfung die Einrichtung abschalten und den Hebel des Dipschalters für die Anzeige Konfiguration (DIP1, SW1)

Die Klappe schließen und die Einrichtung wieder speisen.

## 7.2 Liste der Kontrollen



Wenn eine der Kontrollen den Test (ERR) nicht besteht, kontaktieren Sie den technischen Kundendienst. "--" bedeutet, dass der Schwenk-Neige-Kopf nicht mit der genannten Option ausgestattet ist.



Der Inhalt dieses Kapitels gilt nicht für Ausführungen mit digitalem Video-Encoder.

Beim Hochfahren zeigt die Einrichtung die Liste der Kontrollen an, welche sie vor dem Wechsel in den Normalbetrieb durchführen muss.

```
EINSCHALTVOORGANG
Parameter Lesen.....OK
Nullsuche.....OK
Kamera.....36x.OK
Temperaturfühler....OK
IR-Strahler.....--
Scheibenwischer.....--
Wahlfreie Karte.....--
```

Abb. 25

## 8 Konfiguration

Die Konfiguration des Geräts kann unter Verwendung folgender Instrumente erfolgen:

- OSM-Schnittstelle (On Screen Menu): Konfiguration mittels Text auf analogem Videosignal.
- Software-Schnittstelle: Konfiguration mittels auf PC installierter Anwendung.
- Web-Schnittstelle: Konfiguration mittels Browser.

### 8.1 OSM-Schnittstelle (On Screen Menu)

#### 8.1.1 Gebrauch des OSM

Während des normalen Betriebs der Einheit kann OSM für die Auswahl und die Konfiguration der erweiterten Funktionen aktiviert werden. Für weitere Informationen siehe entsprechendes Kapitel im Handbuch der verwendeten Tastatur. (10.13 Spezialbefehle, Seite 52).

Austritt aus OSM mit Zoom Wide (Zoom-).

**i** Das Menü konfiguriert sich je nach Modell des Schwenk-Neige-Kopfes dynamisch selbst.

#### 8.1.1.1 Verwendung des Steuerknüppels

Alle Menüvorgänge werden mit dem Steuerknüppel veranlasst.

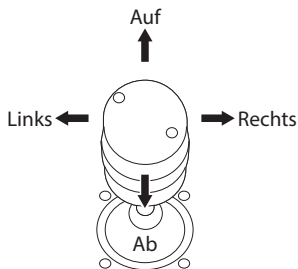


Abb. 26 Pan und tilt.

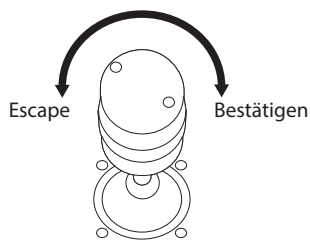


Abb. 27 Zoom Wide und Zoom Tele.

**i** Falls Bedientastaturen mit Zweiachsen-Joystick verwendet werden, die Tasten Zoom Wide und Zoom Tele verwenden, um die Befehle Beenden und Bestätigen zu senden.

## 8.1.2 Das Bewegen innerhalb der Menüs

Jeder OSM-Bildschirm weist eine Liste mit Parametern oder Untermenüs auf, die vom Bediener angewählt werden können. Um die verschiedenen Parameter durchzublätern, den Cursor mit dem Joystick (rauf und runter) bewegen.

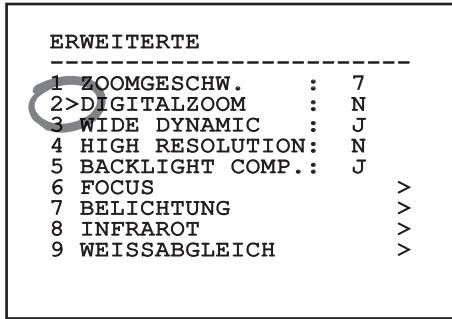


Abb. 28

Das Symbol > am Zeilenende weist darauf hin, dass ein spezielles Untermenü vorhanden ist. Um es aufzurufen, reicht es aus, die entsprechende Menüoption zu bestätigen. Zum Verlassen des Untermenüs die Funktion Escape (Zoom Wide) benutzen.

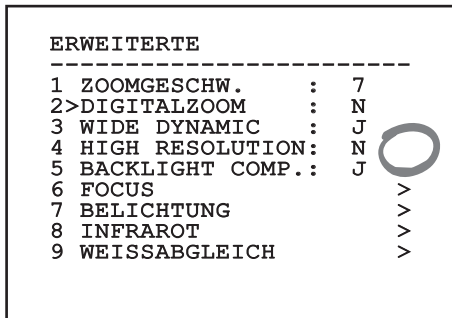


Abb. 29

## 8.1.3 Ändern von Parametern

Den Cursor auf den zu ändernden Parameter bewegen und bestätigen. Das Feld beginnt zu blinken als Zeichen dafür, dass es geändert wird. Mithilfe des Joysticks (Bewegung nach oben und unten) werden die Wahlmöglichkeiten angezeigt.

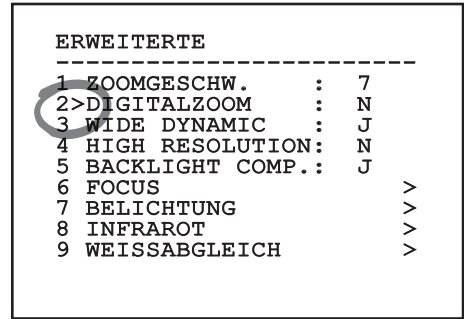


Abb. 30

Nach der Bestimmung der gewünschten Option bestätigen.

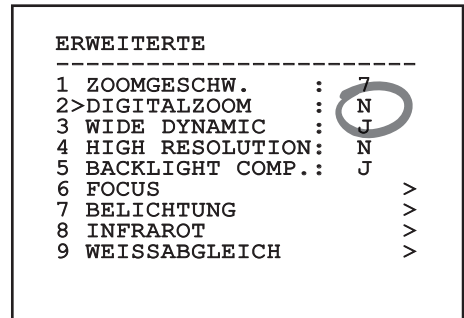


Abb. 31

Das Feld hört auf zu blinken, um die Präferenz zu bestätigen.



## 8.1.4 Ändern der Zahlenfelder

Den Cursor auf den zu ändernden Parameter bewegen und bestätigen.

```
PRESET ANDERN
-----
1 NR.      :      1
2 ABIL.   :      N
3>PAN     :+   0.00
4 TILT    :+   0.00
5 ZOOM    :      0
6 FOCUS   :  4096
SPEED:    100.0
8 PAUSE   :      1
9 TEXT    : Text 001
```

Abb. 32

Die erste Ziffer des gerade geänderten Zahlenfeldes blinkt und in der unteren Zeile wird gezeigt, welche Werte für das Feld zulässig sind. Das Feld mit dem Steuerknüppel aufsuchen (rechts und links) und das Vorzeichen oder den Zahlenwert ändern (auf und ab).

```
PRESET ANDERN
-----
1 NR.      :      1
2 ABIL.   :      N
3>PAN     :+000.00
4 TILT    :+  0.00
5 ZOOM    :      0
6 FOCUS   :  4096
SPEED:    100.0
8 PAUSE   :      1
9 TEXT    : Text 001
min:-180.00 max:+179.99
```

Abb. 33

Die vorgenommene Änderung bestätigen. Der Cursor bewegt sich nach links und die bearbeitete Ziffer hört auf zu blinken. Das Feld wird zwangsweise auf den zulässigen Mindest- oder Höchstwert gebracht, wenn versucht wird, einen nicht vorgesehenen Wert einzugeben.

## 8.1.5 Ändern von Texten

Den Cursor auf den zu ändernden Parameter bewegen und bestätigen.

```
ZONE ANDERN
-----
1 NR      :      1
2 START:+ 0.00
3 STOP  :+  0.00
4>TEXT   :TXT AREA1
```

Abb. 34

Es erscheint die Bildschirmseite für die Bearbeitung des Textes. Das Pfeilsymbol positioniert sich unter dem Zeichen, das verändert werden soll, während der Cursor > sich links neben dem ausgewählten Zeichen positioniert.

```
EDIT TEXT: AREA
-----
Text: TEXT AREA1
      ↑
>A B C D E F G   ERASE
  H I J K L M N   SAVE
  O P Q R S T U   EXIT
  V W X Y Z 0 1   abc
  2 3 4 5 6 7 8
  9 : ; . / ? !
  \ + - * / = "
  < > SPACE ← →
```

Abb. 35

Es ist möglich, mit dem Joystick innerhalb des Menüs zu navigieren.

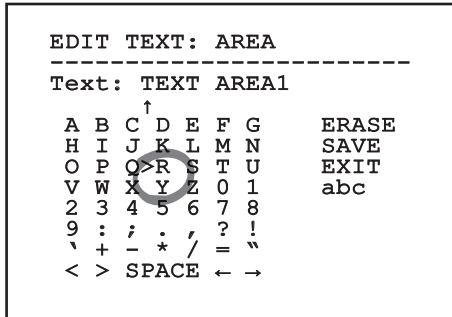


Abb. 36

Mit dem Befehl Bestätigen (Zoom Tele) wird das gewünschte Zeichen eingefügt.

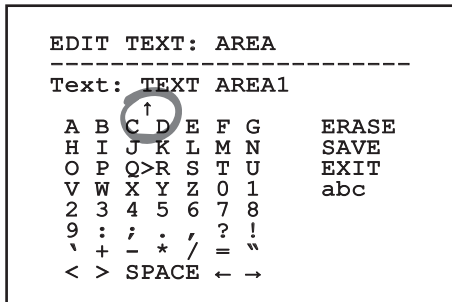


Abb. 37

Verwenden Sie:

- **ERASE:** Die gesamte Textzeilenfolge löschen.
- **SAVE:** Speichern des neuen Textes vor dem Austritt aus dem Menü.
- **EXIT:** Austritt aus dem Menü.
- **abc:** Anzeige der Kleinbuchstaben.

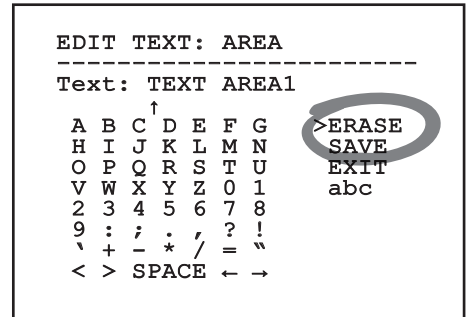


Abb. 38

Das Menü kann auch mit Zoom Wide verlassen werden.

## 8.1.6 Konfiguration über OSM

Im Folgenden werden die Bildschirmseiten zur Konfiguration des Produkts beschrieben.

### 8.1.7 Hauptmenü

Vom Hauptmenü aus kann die Konfigurierung der Einrichtung aufgerufen werden.

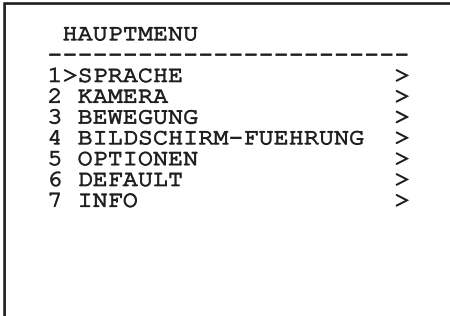


Abb. 39

### 8.1.8 Menü Sprachwahl

Mit dem Menü kann die gewünschte Sprache ausgewählt werden.

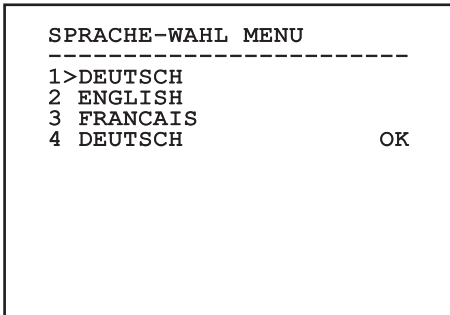


Abb. 40

## 8.1.9 Kameramenü

1. **Konfiguration:** Hier kann eine der für das Modul SONY vorgegebenen Konfigurationen gewählt werden:
  - **Standard:** Normaler Kamerabetrieb.
  - **Low Light:** Betriebsart für schwach beleuchtete Umgebungen.
  - **Far Mode:** Betriebsart für weitläufige Bereiche. Aktiviert das Proportional- und Digitalzoom.
  - **Custom:** Weist darauf hin, dass die Kameraparameter vom Benutzer manuell eingestellt worden sind.
2. **Zonenbetitelung:** Gestattet den Aufruf des Untermenüs für die Zonenbetitelung.
3. **Maskierung:** Für den Aufruf des Untermenüs für die dynamische Maskierung.
4. **Erweiterte:** Gestattet den Aufruf des Untermenüs für die Festlegung der erweiterten Parameter des Moduls SONY.

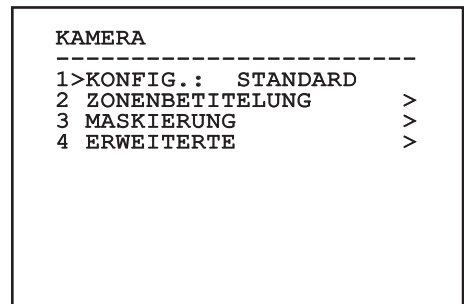


Abb. 41

### 8.1.9.1 Menü Zonenbetitelung

Diese Funktion gestattet die Festlegung von bis zu acht Zonen (verschiedener Größe), die sich betiteln lassen.

1. **Befähigung:** Hier kann die Bildschirmanzeige der Meldung aktiviert werden, die der erreichten Zone zugewiesen ist.
2. **Zone Ändern:** Gestattet den Aufruf des Untermenüs für die Einstellung der Zonenparameter.

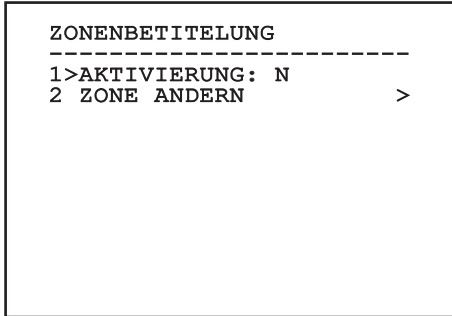


Abb. 42

### 8.1.9.2 Menü Zonenbetitelung (Zone Ändern)

Nach dem Aufruf des Menüs können die folgenden Parameter eingestellt werden:

1. **Nummer:** Auswahl der zu ändernden Zone.
2. **Start:** Anfangsposition der Zone.
3. **Stop:** Endposition der Zone.
4. **Text:** Änderung des Textes, der angezeigt wird, wenn man sich innerhalb des Bereiches bewegt.

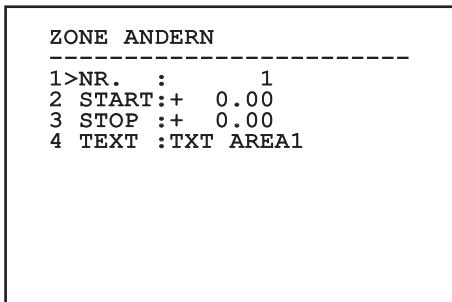


Abb. 43

**Beispiel:** Um die Betitelung der Zone 1 zu aktivieren, wenn sich die Vorrichtung zwischen +15° und +45° befindet, ist folgendermaßen vorzugehen:

- Die Zonenbetitelung aktivieren, indem man unter Aktivierung im Menü Zonenbetitelung ein J vorgibt
- Für den Parameter Nr im Menü Zone Ändern den Wert 1 eingeben.
- Für den Parameter Start im Menü Zone Ändern den Wert +15.00 vorgeben.
- Für den Parameter Stop im Menü Zone Ändern den Wert +45.00 vorgeben.
- Falls gewünscht, den angezeigten Text mit der Option Text aus dem Menü Zone Ändern bearbeiten.

**i** Wenn man die Parameter Start und Stop aus dem Menü Zone ändern auf den Wert Null setzt, wird die Anzeige der Betitelung deaktiviert. Bei Überlagerung mehrerer Bereiche ist die höhere Nummer ausschlaggebend.

**i** Für die Definition der Bereiche folgen Sie dem Uhrzeigersinn, wie in der Abbildung gezeigt.

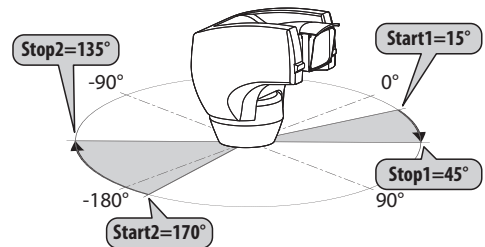


Abb. 44

**i** Der Standardname und die Standardposition der Bereiche des Schwenk-Neige-Kopfes beziehen sich auf die vier Himmelsrichtungen. Die Position NORD wird mit dem Parameter Offset Pan des Bewegungsmenüs geändert (8.1.10 Menü Bewegung, Seite 35).

### 8.1.9.3 Menü Maskierung

Die dynamische Maskierung ermöglicht die Vorgabe von bis zu 24 Masken, mit denen besondere benutzerdefinierte Bereiche verdunkelt werden.

Die Masken werden im Raum definiert und berücksichtigen die Zoomposition in der Horizontalen, der Vertikalen und der Tiefe zum Zeitpunkt der Einstellung.

ULISSE COMPACT/ULISSE COMPACT THERMAL hält automatisch die Position und Größe der Maskierung in Abhängigkeit vom angezeigten Bereich konstant.

Es lassen sich bis zu 8 Masken gleichzeitig anzeigen.

Fährt man die Einrichtung mit Höchstgeschwindigkeit, werden die Zeiten für die Aktualisierung des Videosignals kritisch und es müssen Masken erstellt werden, die größer sind als das Objekt, damit dies während des Kameradurchlaufs länger ausgeblendet wird und nicht sichtbar ist.

**i** Um die volle Funktionsfähigkeit zu gewährleisten, muss die Tiltposition der Maske zwischen -70 und +70 Grad liegen. Außerdem muss die Maske doppelt so groß sein, wie das abzudeckende Objekt (sowohl in der Höhe, als auch in der Breite).

Ermöglicht die Konfiguration folgender Parameter:

- Maskenfarbe:** Auswahl der Maskenfarbe.
- Masken Ändern:** Aufruf des Untermenüs Masken Ändern, in dem die Parameter der dynamischen Maskierung festgelegt werden können.

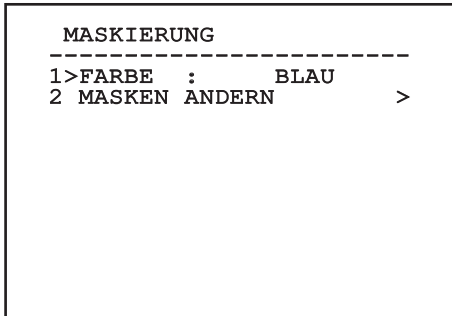


Abb. 45

### 8.1.9.4 Menü Maskierung (Masken Ändern)

Ermöglicht die Konfiguration folgender Parameter:

- Maskennummer:** Zur Auswahl der zu ändernden Maske.
- Maske Aktivieren:** Aktiviert oder deaktiviert die ausgewählte Maske.
- Maske Ändern:** Gestattet die Erstellung oder Änderung einer Maske.

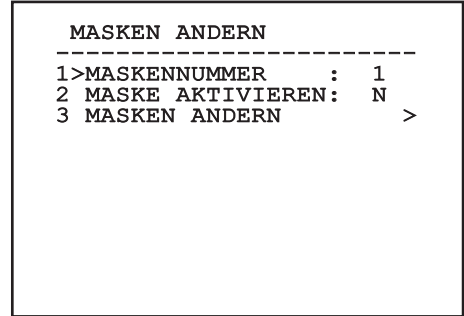


Abb. 46

Wählt man die Menüoption Maske Ändern, lassen sich neue Werte der ausgewählten Maske vorgeben.

### 8.1.9.5 Come creare una nuova maschera

Mit der Option Maske Nummer aus dem Menü Masken Ändern eine nicht aktivierte Maske wählen. Um sie zu bearbeiten, wählen Sie bitte Maske Ändern (Abb. 46, Seite 29).

Im folgenden Beispiel wird eine Blume maskiert.

- Den Knopf Iris Close drücken, um vom Modus Maskierung zum Modus Kamera bewegen zu wechseln.

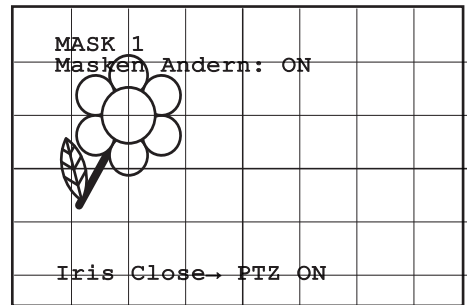


Abb. 47

- Mit dem Steuerknüppel der Bedientastatur die Einheit bewegen und bei Bedarf zoomen, bis die Blume auf dem Bildschirm zentriert ist.

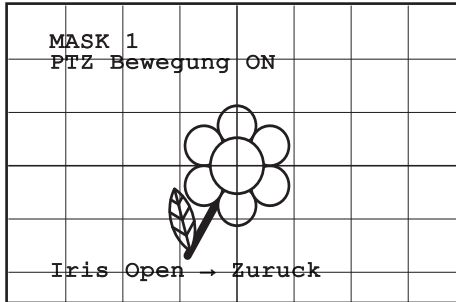


Abb. 48

- Wenn dieses Ergebnis vorliegt, den Knopf Iris Open drücken.

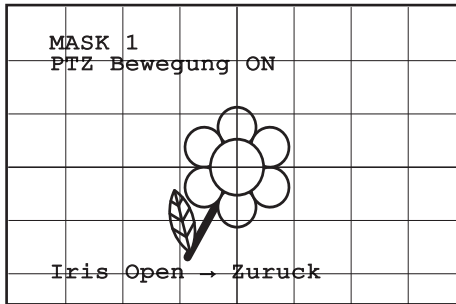


Abb. 49

- Es erscheint ein kleines Rechteck. Mit dem Steuerknüppel (Pan und Tilt) das Rechteck vergrößern, bis die gesamte Blume verdeckt ist.

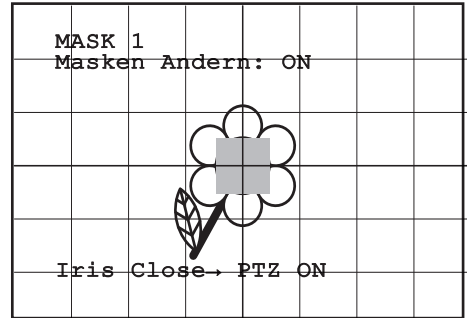


Abb. 50

- Wenn das gegeben ist, durch Drehen des Zooms auf Tele bestätigen.

### 8.1.9.6 Bearbeiten einer Maske

Mit der Option Maske Nummer aus dem Menü Masken Ändern eine aktivierte Maske wählen (Abb. 46, Seite 29). Um sie zu bearbeiten, wählen Sie bitte.

- Mit dem Steuerknüppel (Pan und Tilt) das Rechteck vergrößern oder verkleinern, bis die gewünschte Wirkung erzielt ist.

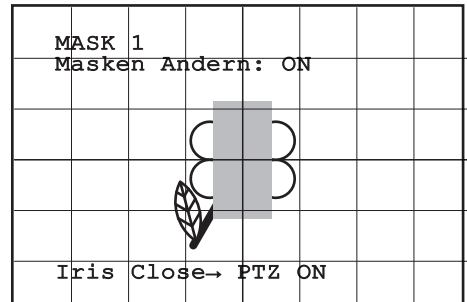


Abb. 51

- Durch Drehen des Zooms auf Tele bestätigen.

### 8.1.9.7 Menü Erweitert Konfiguriert

Mit diesem Menü kann das Modul von SONY konfiguriert werden.

1. **Zoom:** Aufruf des Untermenüs Zoom.

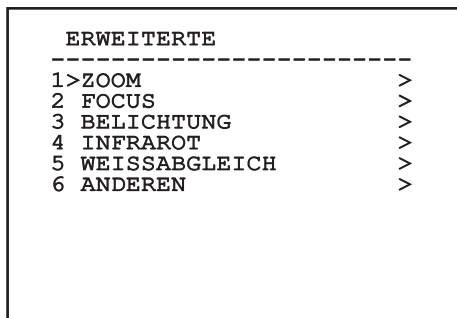


Abb. 52

### 8.1.9.8 Menü Erweitert Konfiguriert (Zoom)

1. **Zoomgeschwindigkeit:** Einstellung der Zoomgeschwindigkeit. Der Geschwindigkeitsbereich liegt zwischen 0 (Mindestgeschwindigkeit) und 7 (Höchstgeschwindigkeit).
2. **Digital-Zoom:** Hier kann der digitale Zoom aktiviert werden.

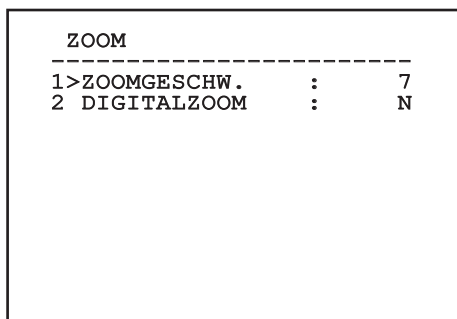


Abb. 53

### 8.1.9.9 Menü Erweitert Konfiguriert (Focus)

Ermöglicht die Konfiguration folgender Parameter:

1. **Focus-Geschwindigkeit:** Einstellbar ist hier die Focusgeschwindigkeit. Die Geschwindigkeitswerte liegen in einem Bereich zwischen 0 (Mindestgeschwindigkeit) und 7 (Höchstgeschwindigkeit).
2. **Autofocus:** Ein- oder Ausschalten des Autofocus. Im eingeschalteten Zustand kann bei jeder Positionierung oder Bewegung des Zooms je nach ausgewählter Betriebsart automatisch der Autofocus aufgerufen werden.
3. **Art des Autofocus:** Hier lässt sich die Art des Autofocus vorgeben. Folgende Werte sind möglich:
  - **Normal:** Der Autofocus ist immer eingeschaltet.
  - **Intervall:** Aufruf der Autofocusfunktion in festgelegten Intervallen. Der Aufruf ist in Intervallen von 5 Sekunden festgelegt.
  - **Trigger:** Aufruf des Autofocus bei jeder PTZ-Bewegung. Dies ist die empfohlene Lösung.
4. **Empfindlichkeit:** Einstellung der Empfindlichkeit. Folgende Werte sind möglich:
  - **Normal:** Fokussierung mit höherer Geschwindigkeit. Dies ist die empfohlene Lösung. Dies ist die empfohlene Lösung.
  - **Gering:** Verlangsamte Fokussierung. Hilfreich zur Stabilisierung des Bildes bei schlechten Lichtverhältnissen in der Umgebung.

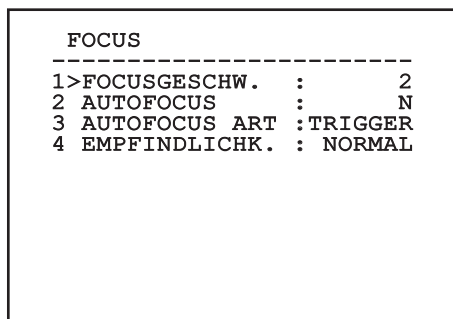


Abb. 54

### 8.1.9.10 Menü Erweitert Konfiguriert (Belichtung)

Ermöglicht die Konfiguration folgender Parameter:

- 1-5. **Modus:** Art der Belichtungssteuerung - Automatik, Manuell, Shutter, Iris und Bright.
6. **Auto Slowshutter:** Im eingeschalteten Zustand wird die Belichtungsdauer automatisch für einen effizienteren Nachtbetrieb erhöht.
- 7-8. **Kompensation, Kompensationswert:** Einstellung der Belichtungskompensation.
9. **Backlight-Kompensation:** Zum Einschalten der Funktion Backlight-Kompensation. Gestattet es, eventuelle dunkle Zonen im Bild besser zu sehen.

Im automatischen Modus kann auch die Backlightkompensation aktiviert werden.

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.

Die Art der Belichtungssteuerung wird auf alle Presetpositionen angewendet.

Die empfohlene Einstellung lautet Automatik.

BELICHTUNG	
1 > MODUS :	AUTO
6 AUTO SLOW SHUTTER :	J
7 KOMPENSATION :	N
8 KOMPENSATIONSWERT :	7
9 BACKLIGHT COMP. :	N

Abb. 55

In der folgenden Tabelle sind die Entsprechungen zwischen den eingegebenen Werten und der Wirkung auf die Optik des SONY-Moduls zusammengestellt.

ENTSPRECHUNG WERT/WIRUNG FÜR DIE OPTIK DES SONY-MODULS					
Wert	Shutter		Iris	Gain	Belichtung-korrektur
	NTSC	PAL			
0	1/1	1/1	Zu	-3db	-10,5db
1	1/2	1/2	F28	0db	-9db
2	1/4	1/3	F22	2db	-7,5db
3	1/8	1/6	F19	4db	-6db
4	1/15	1/12	F16	6db	-4,5db
5	1/30	1/25	F14	8db	-3db
6	1/60	1/50	F11	10db	-1,5db
7	1/90	1/75	F9.6	12db	0db
8	1/100	1/100	F5	14db	1,5db
9	1/125	1/120	F6.8	16db	3db
10	1/180	1/150	F5.6	18db	4.5db
11	1/250	1/215	F4.8	20db	6db
12	1/350	1/300	F4	22db	7,5db
13	1/500	1/425	F3.4	24db	9db
14	1/725	1/600	F2.8	26db	10,5db
15	1/1000	1/1000	F2.4	28db	
16	1/1500	1/1250	F2		
17	1/2000	1/1750	F1.6		
18	1/3000	1/2500			
19	1/4000	1/3500			
20	1/6000	1/6000			
21	1/10000	1/10000			

Tab. 11



### 8.1.9.11 Menü Erweitert Konfiguriert (Infrarot)

Ermöglicht die Konfiguration folgender Parameter:

1. **IR-Modus:** Wird hier OFF eingestellt, ist dauerhaft der Tagesmodus aktiviert (ein vorhandener Scheinwerfer wird mit Dämmerungsschalter oder dem zugehörigen Tastaturbefehl betätigt). Wird ON eingestellt, ist dauerhaft der Nachtmodus aktiviert. Wird Auto eingestellt, wird die automatische Umschaltung der Kamera aktiviert.
2. **Nacht Schwelle:** Stellt die Schwelle zur Erhebung der Lichtbedingungen für die Schaltung in den Nachtmodus ein. Niedrigere Werte entsprechen einem geringeren Leuchtkraftniveau.
3. **Verzögerung Nacht:** Stellt die in Sekunden ausgedrückte Zeit zur Erhebung der Dunkelbedingungen vor der Schaltung in den Nachtmodus ein.
4. **Tag Schwelle:** Stellt die Schwelle zur Erhebung der Lichtbedingungen für die Schaltung in den Tagmodus ein. Niedrigere Werte entsprechen einem geringeren Leuchtkraftniveau.
5. **Verzögerung Tag:** Stellt die in Sekunden ausgedrückte Zeit zur Erhebung der Lichtbedingungen vor der Schaltung in den Tagmodus ein.
6. **Cut Off Filter:** Wenn S eingestellt ist, funktioniert der Schwenk-Neige-Kopf normal. Wenn N eingestellt ist, schaltet die Kamera nicht vom Modus Tag auf Nacht um, sondern funktioniert nur im Tagesmodus. Wenn I eingestellt ist, wird der Scheinwerfer, falls vorhanden, gemäß den Einstellungen des Stichworts IR-Modus ein- und ausgeschaltet



Um falsche Schaltungen zu vermeiden ist es ratsam, die höchsten Werte sowohl für die Schwelle als auch die Verzögerung der Tagschaltung auszuwählen.

INFRAROT		
-----		
1	>MODUS IR	: AUTO
2	NACHT SCHWELLE:	5
3	VERZOGER.NACHT:	5
4	TAG SCHWELLE :	20
5	VERZOGER. TAG :	30
6	CUT OFF FILTER:	J

Abb. 56

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.



**Es wird dringend vom automatischen Schaltungsmodus Day/Night des Moduls abgeraten, wenn die Schwenkvorrichtung während der Nachtzeit unvermittelten Lichtveränderungen unterworfen wird, z.B. bei einer Patrol- Strecke oder beim Einschalten von zusätzlichen Beleuchtungsgeräten. In diesen Fällen könnten zahlreiche unerwünschte Schaltungen verursacht werden und so würde die Funktionstüchtigkeit dieses Moduls beeinträchtigt.**

### 8.1.9.12 Menü Erweitert Konfiguriert (Weißabgleich)

Ermöglicht die Konfiguration folgender Parameter:

1. **Modus:** Einstellbar ist die Steuerung des Weißabgleichs. Folgende Werte sind möglich:
  - **Automatisch:** Der Weißabgleich erfolgt automatisch. Dies ist die empfohlene Lösung.
  - **Manuell:** Die manuelle Einstellung der Rot- und Blaulichtverstärkung wird aktiviert.
  - **Outdoor:** Für Außenbereiche werden feste Werte für die Rot- und Blaulichtverstärkung vorgegeben.
  - **Indoor:** Für Innenbereiche werden feste Werte für die Rot- und Blaulichtverstärkung vorgegeben.
  - **ATW:** Einschalten des Auto Tracing White Balance.
2. **Rotwert:** Vorgabe des Wertes zur Rotlichtverstärkung.

WEISSABGLEICH		
-----		
1>MODUS	:	MANUELL
2 ROTWERT	:	0
3 BLAUWERT	:	0

Abb. 57

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.

### 8.1.9.13 Menü Erweitert Konfiguriert (Anderen)

1. **Sharfe:** Einstellung der Bildschärfe.
2. **Hohe Auflösung:** Zum Einschalten der Funktion Hohe Auflösung. Das ausgehende Videosignal hat eine höhere Auflösung.
3. **Wide Dynamic:** Zum Einschalten der Funktion Wide Dynamic. Verbessert die Sicht, wenn der ins Bild genommene Bereich Zonen hat, die sehr viel heller sind als andere.
4. **Stabilisator:** Schaltet die elektronische Bildstabilisierungsfunktion ein.
5. **Progressive Scan:** Schaltet die Funktion Progressive Scan ein. Sie sorgt für ein stabileres Bild, wenn der Schwenk-Neige-Kopf mit einem Videoserver verbunden ist.
6. **Noise Reduction:** Zur Einstellung des Rauschunterdrückungspegels. Durch Anpassung des Parameters an die Umgebungsbedingungen lässt sich ein kontrastreicherer Bild erzielen.

ANDEREN		
-----		
1 SCHARFE	:	6
2 HOHE AUFLÖSUNG	:	N
3 WIDE DYNAMIC	:	OFF
4 STABILISATOR	:	N
5 PROGRESSIVE SCAN:		N
6 NOISE REDUCTION :		2

Abb. 58

## 8.1.10 Menü Bewegung

1. **Konfiguration:** Eine der vorgegebenen Konfigurationen des Schwenk-Neige-Kopfes kann eingestellt werden.
  - **Standard:** Normale Bewegungsgeschwindigkeit.
2. **Offset Pan:** Der Schwenk-Neige-Kopf hat eine Position von 0°, die mechanisch definiert ist. Die Funktion Offset Pan ermöglicht es, auf Softwareebene eine andere Position als 0° festzulegen.
3. **Manuelle Steuerung:** Ermöglicht den Zugriff auf die Untermenüs mit den Parametern, welche der manuellen Bewegungen der Einrichtung zugeordnet sind.
4. **Preset:** Ermöglicht den Zugriff auf die Untermenüs, welche die Änderung der Presetwerte ermöglichen.
5. **Patrol:** Ermöglicht den Aufruf der Untermenüs, welche die Änderung der Patrolwerte ermöglichen.
6. **Autopan:** Ermöglicht den Aufruf der Untermenüs für die Änderung der Autopanwerte.
7. **Bewegungsanforderung:** Ermöglicht den Aufruf des Untermenüs für die automatische Bewegungsanforderung.
8. **Erweiterte:** Gestattet den Aufruf des Untermenüs für die Festlegung der erweiterten Parameter.

### BEWEGUNG

```

-----
1>KONFIG.      :  STANDARD
2 OFFSET PAN:  + 0.00
3 MANUELLE STEUERUNG  >
4 PRESET              >
5 PATROL              >
6 AUTOPAN            >
7 BEWEGUNGSANFORDERUNG >
8 ERWEITERTE        >
  
```

Abb. 59

## 8.1.10.1 Menü Handsteuerung

1. **Höchstgeschwindigkeit:** Hier kann die Höchstgeschwindigkeit bei manueller Steuerung vorgegeben werden..
2. **Fastmodus:** Zum Einschalten des Fastbetriebes. Wenn diese Option aktiviert wird, kann der Schwenk-Neige-Kopf durch Bewegung des Steuerknüppels bis zum Anschlag mit einer Geschwindigkeit schnell bewegt werden.
3. **Geschwindigkeit Mit Zoom:** Zum Einschalten der Geschwindigkeit mit Zoom. Bei Aktivierung dieses Parameters wird die Geschwindigkeit für Pan und Tilt automatisch in Abhängigkeit vom Zoomfaktor reduziert.
4. **Tilt-Faktor:** Reduzierfaktor für die manuelle Geschwindigkeit der Tiltachse.
5. **Autoflip:** Zur Aktivierung der Funktion Autoflip (der Schwenk-Neige-Kopf wird dabei automatisch um 180° gedreht, wenn die Tiltfunktion den Endanschlag erreicht). Dadurch wird die Verfolgung von Subjekten entlang von Fluren oder Straßen erleichtert.
6. **Bewegungsgrenzpunkte:** Ermöglicht den Aufruf des Menüs Grenzpunkte.

### Manuelle Steuerung

```

-----
1>HOCHSTGESCHW.    :100.0
2 FASTMODUS       :      J
3 GESCHW. MIT ZOOM:      N
4 TILT FAKTOR     :      2
5 AUTOFLIP        :      J
6 BEWEGUNGSGRENZPUNKTE >
  
```

Abb. 60

### 8.1.10.2 Menü Handsteuerung (Grenzpunkte)

Ermöglicht die Konfiguration folgender Parameter:

1. **Grenzpunkte Pan:** Aktiviert die Grenzpunkte für die Funktion Pan (Kameraschwenk).
2. **Beginn Pan:** Vorgabe der Grenzposition zu Beginn des Kameraschwenks (Pan).
3. **Ende Pan:** Vorgabe der Grenzposition am Ende des Kameraschwenks (Pan).
4. **Grenzpunkte Tilt:** Aktiviert die Grenzpositionen der Tiltfunktion (Kameraneigung).
5. **Beginn Tilt:** Vorgabe der Grenzposition zu Beginn der Kameraneigung (Tilt)
6. **Ende Tilt:** Vorgabe der Grenzposition am Ende der Kameraneigung (Tilt).

```

GRENZPUNKTE
-----
1>PAN           :      N
2 BEGINN PAN   : +  0.00
3 ENDE PAN     : +  0.00
4 TILT         :      N
5 BEGINN TILT  : +  0.00
6 ENDE TILT    : +  0.00

```

Abb. 61

### 8.1.10.3 Menü Preset

1. **Preset Ändern:** Für den Zugriff auf das Menü Änderung Preset.
2. **Utility Preset:** Für den Zugriff auf das Menü Utility Preset.

```

PRESET
-----
1>PRESET ANDERN >
2 UTILITY PRESET >

```

Abb. 62

### 8.1.10.4 Menü Preset (Preset Ändern)

Ermöglicht die Konfiguration folgender Parameter:

1. **Nummer:** Dies ist die Nummer des zu ändernden Preset.
2. **Befähigung:** Zum Einschalten des Preset.
3. **Pan:** Pan-Position in Grad.
4. **Tilt:** Tilt-Position in Grad.
5. **Zoom:** Zoomposition.
6. **Focus:** Position des Fokus tags und nachts.
7. **Geschwindigkeit:** Die Geschwindigkeit, mit der die Position erreicht wird, wenn die Presetposition von der Patrol- und Scanfunktion aufgerufen wird.
8. **Pause:** Wartezeit in Sekunden vor Beginn der nachfolgenden Patrol- Bewegung.
9. **Text:** Der angezeigte Text bei Erreichen der Presetposition.

```

PRESET ANDERN
-----
1>NR.          :      1
2 ON           :      N
3 PAN          :+  0.00
4 TILT         :+  0.00
5 ZOOM         :      0
6 FOCUS       : 4096 - 5600
SPEED         : 100.0
8 PAUSE       :      1
9 TEXT        : Text 001

```

Abb. 63

Vom Menü aus lassen sich die Presetpositionen direkt speichern, wenn man den Befehl Iris Close übermittelt, der die Bewegungen des Schwenk-Neige-Kopfes aktiviert.

### 8.1.10.5 Menü Preset (Utility Preset)

Ermöglicht die Konfiguration folgender Parameter:

1. **A.Focus Tag:** Zum Einschalten des Autofokus beim Aufruf der Presets im Tagesmodus. Damit eine schnelle und saubere Fokussierung des Bildes garantiert ist, ist die automatische Fokussierung auszuschalten.
2. **A.Focus Nacht:** Zum Einschalten des Autofokus beim Aufruf der Presets im Nachtmodus. Es wird empfohlen, die automatische Fokussierung zu aktivieren, wenn der Schwenk-Neige-Kopf mit Infrarotscheinwerfer ausgestattet ist, denn der Brennpunkt variiert zwischen sichtbarem Licht und Infrarotlicht.
3. **Scan Geschwindigkeit:** Diese Referenzgeschwindigkeit wird benutzt, wenn eine neue Presetposition mit der Funktion Scan aufgerufen wird.
4. **Standardgeschwindigkeit:** Änderung der Standardgeschwindigkeit beim Anfahren der Presetfunktionen. Auf diesen Wert greift die Funktion Ges. Setzen? zurück, um allen Vorwahlpositionen dieselbe Geschwindigkeit zuzuweisen.
5. **Standardpause:** Änderung der Standardpausendauer für die Presetpositionen. Auf diesen Wert greift die Funktion Pause Setzen? zurück, um allen Vorwahlpositionen dieselbe Pause zuzuweisen.
6. **Geschwindigkeit Setzen:** Weist allen Vorwahlpositionen (Preset) die Standardgeschwindigkeit zu.
7. **Pause Setzen:** Weist allen Vorwahlpositionen die Standardpause zu.

```
UTILITY PRESET
-----
1>AUTOFOKUS TAG      :      N
2 AUTOFOKUS NACHT   :      J
3 SCAN GESCHWIND    : 200.0
4 STANDARDGESCHW.  : 100.0
5 STANDARDPAUSE     :      3
6 GESCHW. SETZEN?
7 PAUSE SETZEN?
```

Abb. 64

### 8.1.10.6 Menü Patrol

1. **Erstes Preset:** Erster Preset der Sequenz Patrol.
2. **Letzes Preset:** Letzter Preset der Sequenz Patrol.
3. **Random Modus:** Aktiviert wird die zufällige Ausführung. Die Sequenz wird laufend neu berechnet.

```
PATROL
-----
1>ERSTES PRESET      :      1
2 LETZES PRESET     : 250
3 RANDOM MODUS      :      N
```

Abb. 65

### 8.1.10.7 Menü Autopan

1. **Preset Hin:** Anfangsposition des Autopan.
2. **Preset Zurück:** Endposition des Autopan.
3. **Geschwindigkeit Hin:** Geschwindigkeit für den Hinweg des Autopan.
4. **Geschwindigkeit Zurück:** Geschwindigkeit für den Rückweg des Autopan.

```
AUTOPAN
-----
1>PRESET HIN        :      1
2 PRESET ZURUCK     :      2
3 GESCHW. HIN      : 20.0
4 ESCHW. ZURUCK    :100.0
```

Abb. 66

### 8.1.10.8 Menü Bewegungsanforderung

Das Gerät kann so konfiguriert werden, dass nach einer gewissen Zeit der Inaktivität automatisch eine vom Bediener ausgewählte Bewegungsfunktion ausgeführt wird.

1. **Bewegungsart:** Auswahl der aufzurufenden Bewegungsart (None, Home, Autopan, Patrol, Tour 1, Tour 2, Tour 3).
2. **Bewegungsverzug:** Ausfallzeiten Joystick, in Sekunden.

```

BEWEGUNGSANFORDERUNG
-----
1>BEWEGUNGSART      :   NONE
2 BEWEGUNGSVERZ.   :       60
  
```

Abb. 67

### 8.1.10.9 Menü Erweiterte

1. **Statische Steuerung:** Aktiviert die Positionssteuerung nur, wenn die Schwenk-Neige-Einrichtung stillsteht.
2. **Dynamische Steuerung:** Aktiviert die Positionssteuerung nur, wenn die Schwenk-Neige-Einrichtung in Bewegung ist
3. **Zyklisches Homing:** Bei Wert ungleich Null wird nach Ablauf der vorgegebenen Stundenzahl ein neuerlicher Homingvorgang vorgegeben.
4. **Sparmodus:** Reduziert das Drehmoment der Motoren, wenn der S-N-Kopf stillsteht. Nicht bei starkem Wind oder starken Vibrationen aktivieren.

```

ERWEITERTE
-----
1>STATISCH           :   J
2 DYNAMISCH         :   J
3 HOMING ZYKLISCH   :
0
4 OEKO-MODE         :   J
  
```

Abb. 68

## 8.1.11 Menü Anzeigen

1. **Position PTZ:** Wenn die Einstellung nicht auf OFF lautet, kann gewählt werden, wie auf dem Bildschirm die Positionen Pan, Tilt und Zoom angezeigt werden. Es kann eine bestimmte Anzeigedauer (1 S, 3 S und 5 S) oder eine Daueranzeige (CONST) gewählt werden.
2. **Name Preset:** Wenn die Einstellung nicht auf OFF lautet, kann gewählt werden, wie auf dem Bildschirm der Text angezeigt wird, welcher der zuletzt erreichten Presetposition zugeordnet ist. Es kann eine bestimmte Anzeigedauer (1 S, 3 S und 5 S) oder eine Daueranzeige (CONST) gewählt werden.
3. **Name Zonen:** Lautet die Einstellung nicht auf OFF, kann gewählt werden, wie die den aktiven Zonen zugeordneten Texte angezeigt werden. Es kann eine bestimmte Anzeigedauer (1 S, 3 S und 5 S) oder eine Daueranzeige (CONST) gewählt werden.
4. **ID Schwenk-Neige-Kopf:** Lautet die Einstellung nicht auf OFF, wird die ID des Schwenk-Neige-Kopfes angezeigt.
5. **Empfangene Befehle:** Lautet die Einstellung nicht auf OFF, kann der Modus gewählt werden, mit dem die empfangenen seriellen Befehle angezeigt werden. Es kann eine bestimmte Anzeigedauer (1 S, 3 S und 5 S) oder eine Daueranzeige (CONST) gewählt werden.
6. **Delta Horizontal:** Bewegt die Menütex te zur besseren Textzentrierung horizontal.

7. **Delta Vertical:** Bewegt die Menütex te zur besseren Textzentrierung vertikal.

ANZEIGEN		
-----		
1>POSITION PTZ	:	1 S
2 NAME PRESET	:	3 S
3 NAME ZONEN	:	OFF
4 ID	:	CONST
5 RX BEFEHLE	:	CONST
DELTA HORIZONTAL:		3
7 DELTA VERTICAL	:	3

Abb. 69

## 8.1.12 Menü Optionen

1. **Deckenmontage:** Wird dieser Modus aktiviert, werden das Bild und die Direktionsbefehle umgekehrt.
2. **Alar me:** Gestattet den Zugriff auf das Alarmmenü.
3. **Waschanlage:** Gestattet den Zugriff auf das Menü Waschanlage.

OPTIONEN		
-----		
1>DECKENMONTAGE :		N
2 ALARME		>
3 WASCHANLAGE		>

Abb. 70

### 8.1.12.1 Menü Alarme

- 1-5. **Alarm 1-5:** Sie ermöglichen den Aufruf der Menüs, in denen die Parameter der Alarme 1 bis 5 festgelegt werden können.
6. **Status Alarme:** Aufrufbar ist das Menü Status Alarme.

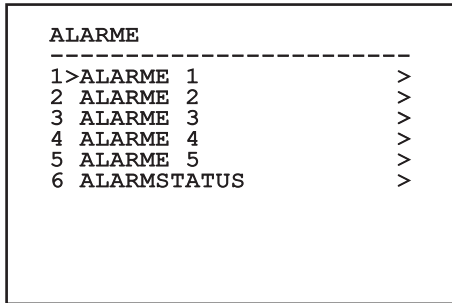


Abb. 71



Bei montiertem IR-Strahler ist Alarm 5 für den externen Dämmerungsschalter reserviert. Deshalb erscheint Alarm 5 nicht auf dem Bildschirm.

Vom Menü Alarme kann man auf eines der Menüs (Alarm 1-5) zugreifen und dort die Alarmparameter ändern.

In diesem Menü können die folgenden Werte vorgegeben werden:

1. **Art:** Eingestellt wird die Kontaktart: Normalerweise geschlossen (NC) oder normalerweise geöffnet (NO)
2. **Aktion:** Die Art der Aktion, die die Einheit ausführt, wenn der Alarm ausgelöst wird (Autopan, Patrol, Relais 1, Relais 2, Scan, Tour 1, Tour 2, Tour 3, Washer, Wiper). Wählt man die Option Off, ist der Alarm deaktiviert.
3. **Nummer:** Das anzufahrende Preset, wenn die Art der Aktion für den Alarm Scan lautet.
4. **Text:** Die angezeigte Beschriftung, wenn der Alarm ausgelöst ist.

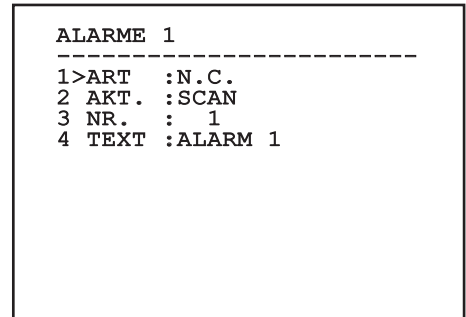


Abb. 72

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.

Im Menü Alarme kann auf das Menü Status Alarme zugegriffen werden, in dem der Status des Eingangs der Alarme angezeigt wird (CLOSED Kontakt hergestellt, OPEN Kontakt nicht hergestellt).

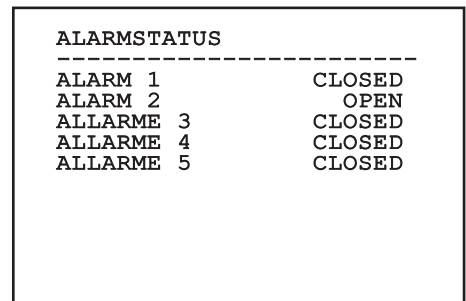


Abb. 73



### 8.1.13 Menü Waschanlage

Der S-N-Kopf bietet die Möglichkeit, einen Scheibenwischer einzusetzen und eine Pumpe für die Scheibenreinigung zu betätigen.

Zur Einstellung der Waschanlage das Kameraobjektiv vor der Düse der Waschanlage positionieren.

Speichern Sie ein Preset (XY) für diese Position ab, die vom Schwenk-Neige-Kopf bei Aktivierung der Funktion WASHER aufgerufen wird.

Die folgenden Parameter konfigurieren.:


1. **Ein:** Aktivierung der Funktion Waschanlage (Washer).
2. **Preset Düse:** Eingabe der Presetnummer (XY), die der Düse entspricht.
3. **Verzögerung Wischer On:** Auswahl des Zeitintervalls, der zwischen der Aktivierung der Pumpe und der des Scheibenwischers verstreicht.
4. **Dauer Waschvorgang:** Auswahl der Dauer des Bürstvorgangs.
5. **Verzögerung Wischer Off:** Auswahl der Dauer des Bürstvorgangs ohne Wasser.

#### WASCHANLAGE

```

-----
1>FREIGABE           : N
2 PRESET DUSE        : 1
3 WISCHERVERZOG. ON : 5
4 WASCHVORGANGSDAUER: 10
5 WISCHERVERZOG. OFF: 5
  
```

Abb. 74

 Bei der Aktivierung der Funktion Washer ist die Verwendung von Relais 2 für das Einschalten der Pumpe reserviert. Dadurch besteht nicht mehr die Möglichkeit, Relais 2 einem Alarm zuzuweisen.

### 8.1.14 Menü Default

1. **Setup löschen?:** Versetzt alle Parameter außer die Presetparameter in den ursprünglichen Zustand.
2. **Preset löschen?:** Löscht alle gespeicherten Presetpositionen.

#### DEFAULT

```

-----
1>SETUP LOSCHEN?
2 PRESET LOSCHEN?
  
```

Abb. 75

 Bei den oben beschriebenen Vorgängen gehen alle gespeicherten Daten verloren (z. B. Preset, Patrol, Autopan, Home...).

### 8.1.15 Menü Info

Das Menü ermöglicht es, die Konfiguration der Einrichtung und die Version der installierten Firmware zu prüfen.

#### ANMERKUNG

```

-----
Adresse: 1
Protokoll : MACRO
RS485-1: 38400 N81 RX
RS485-2: 38400 N81 RIPET
FW: 0a (Apr 14 2009)
HW: 000-0000
Kamera    : 36x
PC: UC1PSSA000A
SN: 109032220029
  
```

Abb. 76

## 8.1.16 Menü Wärmebildkamera

1. **Steuerung:** Vorgegeben wird die Art, wie die Wärmebildkamera gesteuert wird.
  - **Innen:** Die Konfiguration der Kamera wird vom Schwenk-Neige-Kopf gesteuert.
  - **Außen:** Gesteuert wird die Konfiguration der Kamera über die serielle Leitung RS-485-3 (nur bei der Version mit Doppelkamera).
2. **Konfiguration:** Vorgegeben wird eine der vordefinierten Konfigurationen der Wärmebildkamera.
  - **Standard:** Hier wird die Standardkonfiguration der Wärmebildkamera eingestellt.
  - **High Gain:** Hier wird die Konfiguration eingestellt, die für eine bessere Bildauflösung gedacht ist.
  - **Isotherm:** Diese Konfiguration ist dafür gedacht, die Gegenstände innerhalb eines bestimmten Temperaturbereiches hervorzuheben (8.1.16.8 Menü Isotherme, Seite 47).
  - **Custom:** Signalisiert, dass die Konfiguration der Wärmebildkamera vom Benutzer manuell gewählt worden ist.
3. **Flat Field-Korrektur:** Gestattet den Aufruf des Untermenüs für die Steuerung der Flat- Field-Korrektur.
4. **Videokonfiguration:** Gestattet den Aufruf des Untermenüs für die Steuerung der Videokonfiguration.
5. **Verstärkungssteuerung:** Gestattet den Aufruf des Untermenüs für die Steuerung der Verstärkungskontrolle.
6. **Konfiguration ROI:** Gestattet den Aufruf des Untermenüs für die Konfiguration der Funktion ROI.
7. **Wärmeanalyse:** Gestattet den Aufruf des Untermenüs für die Steuerung der Wärmeanalyse.
8. **Status:** Gestattet den Aufruf des Untermenüs mit den technischen Eigenschaften der Wärmebildkamera.

### WÄRMEBILDKAMERA

```

-----
1>STEUERUNG:    INTERN
2 KONFIG.  :    STANDARD
3 FLAT FIELD-KORREKTUR >
4 VIDEOKONFIGURATION  >
5 VERSTÄRKUNGSSTEUERUNG>
6 KONFIGURATION ROI   >
7 WÄRMEANALYSE       >
8 STATUS              >
  
```

Abb. 77

### 8.1.16.1 Menü Flat-Field-Korrektur

Die Wärmebildkamera hat einen internen Mechanismus, der in bestimmten Zeitabständen die Bildqualität verbessert: Die Flat-Field-Korrektur (FFC). Diese Funktion hat die folgenden Parameter:

1. **Flat Field Auto:** Aktiviert die automatische oder manuelle Flat-Field-Korrektur. Wenn die automatische Korrektur aktiviert ist, führt die Kamera nach einer gegebenen Zeitspanne oder einer gegebenen Temperaturänderung eine FFC durch. Verwendet man umgekehrt die manuelle Korrektur, werden die Vorgänge der FFC vom Benutzer veranlasst. Es wird empfohlen, stets die automatische Korrektur zu verwenden.
2. **Intervall:** Die Zeitspanne, nach der eine FFC durchgeführt wird, wenn als dynamischer Verstärkungsbereich High vorgegeben ist. Die Zeitspanne wird in Frames ausgedrückt (33ms bei NTSC, 40ms bei PAL).
3. **Low Intervall:** Die Zeitspanne, nach der eine FFC durchgeführt wird, wenn als dynamischer Verstärkungsbereich Low vorgegeben ist. Die Zeitspanne wird in Frames ausgedrückt (33ms bei NTSC, 40ms bei PAL).
4. **Temperatur:** Dies ist die Temperaturänderung, nach deren Erreichen eine FFC durchgeführt wird, wenn als dynamischer Verstärkungsbereich High vorgegeben ist. Die Temperaturänderung wird in Intervallen von 0,1 °C ausgedrückt.
5. **Low Temperatur:** Eingestellt wird hier das Temperaturintervall, nach dem eine FFC durchgeführt wird, wenn der dynamische Verstärkungsbereich Low ist. Die Temperaturänderung wird in Intervallen von 0,1 °C ausgedrückt.
6. **Verstärkungsmodus:** Hier kann die Art des dynamischen Verstärkungsbereiches gewählt werden:
  - **High:** Diese Einstellung ist dazu bestimmt, den Kontrast zu maximieren. Besonders geeignet ist sie für Anwendungen mit Videoanalyse der Bilder.
  - **Low:** Bei dieser Einstellung ist der dynamische Bildbereich größer und der Kontrast kleiner. Sie ist besonders zur Identifizierung der wärmsten Bildelemente geeignet.
  - **Auto:** Diese Einstellung ermöglicht es der Kamera, zwischen der Modalität High und Low zu wechseln, wobei sie sich auf den aktuell visualisierten Bildtyp basiert. Die Parameter des Menüs Werte Wechsel Gewinn dienen dazu, das Verhalten dieser Modalität zu verändern. (8.1.16.2 Menü Flat-Field-Korrektur (Verstärkungsänderungswerte), Seite 44).
7. **FFC ausführen:** Veranlasst wird ein FFC-Vorgang.
8. **Werte Verstärkungskontrolle Schalt:** Gestattet den Aufruf des Untermenüs für die Steuerung der Verstärkungsänderungswerte.

FLAT FIELD-KORREKTUR	
-----	
1>FLAT FIELD AUTO:	S
2 INTERVALL :	7200
3 LOW INTERVALL :	1350
4 TEMPERATUR :	5
5 LOW TEMPERATUR :	10
6 VERSTÄRKUNGSMODUS :	HOCH
7 FFC AUSFÜHREN?	
8 WERTE VERSTÄRK. SCHALT>	

Abb. 78



Es wird empfohlen, die Standardwerte nicht zu ändern, weil sie so bemessen sind, dass sie unter allen Betriebsbedingungen eine hohe Bildqualität gewährleisten.

### 8.1.16.2 Menü Flat-Field-Korrektur (Verstärkungsänderungswerte)

Nach dem Aufruf des Menüs

Verstärkungsänderungswerte lässt sich einer der folgenden Parameter vorgeben:

1. **Schwelle Hoch-Niedrig:** Für die Einstellung der Temperaturschwelle, auf die der Population Hoch-Niedrig Parameter zurückgreift, um in den Modus Verstärkung Niedrig umzuschalten. Der Wert wird in Grad Celsius ausgedrückt.
2. **Population Hoch-Niedrig:** Für die Einstellung der prozentualen Mindestpixelzahl, oberhalb derer die Umschaltung in den Modus Verstärkung Niedrig erfolgt.
3. **Schwelle Niedrig-Hoch:** Für die Einstellung der Temperaturschwelle, auf die der Parameter Population Niedrig-Hoch zurückgreift, um in den Modus Verstärkung Hoch umzuschalten. Der Wert wird in Grad Celsius ausgedrückt.
4. **Population Niedrig-Hoch:** Für die Einstellung der prozentualen Mindestpixelzahl, oberhalb derer die Umschaltung in den Modus Verstärkung Hoch erfolgt.


#### WERTE VERSTÄRK. SCHALT


```

-----
1>SCH. HOCH-NIEDR.: 140
2 POP. HOCH-NIEDR.:  20
3 SCH. NIEDR.-HOCH: 100
4 POP. NIEDR.-HOCH:  95

```

Abb. 79

 **Es wird empfohlen, die Standardwerte nicht zu ändern, weil sie so bemessen sind, dass sie unter allen Betriebsbedingungen eine hohe Bildqualität gewährleisten.**

 **Die Einstellungen des Menüs Werte Verstärkungswechsel haben nur Wirkung, wenn der Verstärkungsmodus auf Auto gesetzt worden ist (8.1.16.1 Menü Flat-Field-Korrektur, Seite 43).**

### 8.1.16.3 Menü Videokonfiguration

Nach dem Aufruf des Menüs Videokonfiguration lässt sich einer der folgenden Parameter einstellen:

1. **Polarität Lut:** Eingestellt wird die Koloration des von der Wärmebildkamera erfassten Bildes.
2. **Hinweis FFC:** Vorgegeben wird die Anzeigedauer eines farbigen Quadrates oben rechts auf dem Bildschirm, wenn eine FFC bevorsteht. Das Zeitintervall wird in Frames ausgedrückt (33ms bei NTSC, 40ms bei PAL). Ein Wert von unter 15 Frames deaktiviert automatisch diesen Hinweis.
3. **Digital-Zoom:** Eingestellt wird die Art des Zooms, der auf das Videosignal angewendet wird (OFF, Auto, 2x, 4x). Verwendet man den Modus Auto, passt sich der Zoom der Wärmebildkamera automatisch an den Zoom des SONY-Moduls an.
4. **Dynamic DDE:** Vorgegeben wird hier der Wert des Filters DDE, der dazu dient, die Schärfe der Umrisse zu verbessern. Die zu verwendenden, typischen Werte liegen zwischen 17 und 25. Bei einem Wert von 17 ist der Filter deaktiviert.
5. **Testsignal:** Aktiviert den Pattern-Test zur Prüfung der Kameraelektronik.

#### VIDEOKONFIGURATION

```

-----
1>POLARIT. LUT:WHITE HOT
2 HINWEIS FFC :      60
3 ZOOM DIGIT. :      AUTO
4 DYNAMIC DDE :      25
5 TESTSIGNAL:      N

```

Abb. 80

### 8.1.16.4 Menü Verstärkungssteuerung

Nach dem Aufruf des Menüs Konfiguration Verstärkungskontrolle kann einer der folgenden Parameter eingestellt werden:

1. **Algorithmus:** Hier wird die Art der automatischen Verstärkungskontrolle (AGC) für die Bildoptimierung eingestellt. Folgende Algorithmen stehen zur Wahl:
  - **Automatisch:** Der Kontrast und die Helligkeit des Bildes werden bei einer Änderung der Umgebungsbedingungen automatisch eingestellt. Dabei wird das Histogramm der Graustufen ausgeglichen. Das Bild kann modifiziert werden, indem man den Wert der Parameter ITT Mean, Max Gain und Plateau Value ändert. Dieser Algorithmus ist standardmäßig eingestellt und wird für den normalen Betrieb der Wärmebildkamera empfohlen.
  - **Once Bright:** Der eingestellte Helligkeitspegel ist der Durchschnitt aus den Bildhelligkeitswerten, wenn diese Position gewählt wird. Das Bild kann durch Änderung des Parameterwertes Kontrast geändert werden.
  - **Auto Bright:** Der eingestellte Helligkeitspegel ist der Durchschnitt aus den Bildhelligkeitswerten. Dieser Pegel wird in Echtzeit aktualisiert. Das Bild kann modifiziert werden, indem man die Werte der Parameter Kontrast und Kompensation ändert.
  - **Manuell:** Die Kontrast- und Helligkeitspegel werden vom Benutzer manuell eingestellt.
  - **Linear-Histogramm:** Der Kontrast und die Helligkeit des Bildes werden mit einer linearen Übertragungsfunktion optimiert. Das Bild kann modifiziert werden, indem man den Wert der Parameter ITT Mean, Max Gain ändert.

2. **Plateau-Wert:** Eingestellt wird der maximale Wert der Bildpunkte, die in einer Graustufe enthalten sein können.
3. **Durchschnitt ITT:** Eingestellt wird der Durchschnittspunkt der Grauskala.
4. **Max Verstärkung:** Eingestellt wird die maximale Verstärkung des AGC.
5. **Kontrast:** Eingestellt wird der Bildkontrastpegel.
6. **Helligkeit:** Vorgegeben wird der Bildhelligkeitspegel.
7. **Kompensation:** Eingestellt wird der Kompensationsgrad der Bildhelligkeit.

VERSTÄRKUNGSSTEUERUNG	
-----	
1 >ALGORITHMUS :	AUTO
2 PLATEAU VAL.:	150
3 MITTELWERT ITT :	127
4 MAX VERSTÄRKUNG:	8
5 KONTRAST :	32
6 HELBIGKEIT :	8192
7 KOMPENSATION:	+ 0

Abb. 81

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.

### 8.1.16.5 Menü Konfiguration ROI

Nach dem Aufruf des Menüs Konfiguration ROI kann der Bereich, der von Interesse ist (region of interest - ROI) geändert werden, der vom Algorithmus AGC genutzt wird, um die Kontrast- und Helligkeitspegel für das Bild zu berechnen.

1. **P1 Links:** Einstellung der linken Grenze ROI.
2. **P1 Oben:** Einstellung der oberen Grenze ROI.
3. **P2 Rechts:** Einstellung der rechten Grenze ROI.
4. **P2 Unten:** Einstellung der unteren Grenze ROI.

KONFIGURATION ROI			
-----			
1	>P1 LINKS	:	- 160
2	P1 HOCH	:	- 128
3	P2 RECHTS	:	+ 160
4	P2 UNTEN	:	+ 128

Abb. 82

### 8.1.16.6 Menü Wärmeanalyse

1. **Messpunkt:** Gestattet den Aufruf des Untermenüs für die Konfiguration des Messpunktes.
2. **Isotherme:** Gestattet den Aufruf des Untermenüs für die Bestimmung der Isotherme.

WÄRMEANALYSE	
-----	
1	>MESSPUNKT >
2	ISOTHERME >

Abb. 83

### 8.1.16.7 Menü Wärmeanalyse (Messpunkt)

Nach dem Aufruf des Menüs Messpunkt kann einer der folgenden Parameter eingestellt werden:

1. **Modus:** Aktiviert die Anzeige der gemäß den 4 Pixeln in der Bildmitte gemessenen Temperatur (in Grad Celsius oder Fahrenheit). Die Option OFF deaktiviert die Anzeige.
2. **Digital:** Aktiviert die Anzeige des zugehörigen Symbols auf dem Bildschirm.
3. **Thermometer:** Aktiviert die Anzeige des zugehörigen Symbols auf dem Bildschirm.

MESSPUNKT		
-----		
1	>MODUS :	OFF
2	DIGITAL :	N
3	THERMOMETER:	N

Abb. 84

### 8.1.16.8 Menü Isotherme

Nach dem Aufruf des Menüs Isotherme kann eine spezielle Koloration für Objekte aktiviert werden, die innerhalb des vorgegebenen Temperaturbereiches liegen. Die Funktionsparameter sind die Folgenden:

1. **Ein:** Aktiviert die Isothermen-Funktion.
2. **Modus:** Ausgewählt wird der Modus, in dem das Intervall ausgedrückt wird (als prozentualer Anteil oder in Grad Celsius).
3. **Oben:** Gibt die obere Grenze der Isothermenfunktion vor.
4. **Unten:** Gibt die untere Grenze der Isothermenfunktion vor.

ISOTHERME		
-----		
1>FREIGABE	:	N
2 MODUS	:	PERCENT
3 HÖHER	:	95
4 NIEDRIGER	:	90

Abb. 85

Das Menü konfiguriert sich dynamisch in Abhängigkeit von der gewählten Einstellung und weist die Parameter aus, die verändert werden können.

### 8.1.16.9 Menü Status

Nach dem Aufruf des Menüs Status können die technischen Eigenschaften der Wärmebildkamera in Erfahrung gebracht werden.

STATUS	
-----	
VERSION SW	: 0A00.022B
FW VERSION	: 0802.0040
KAMERA S.N.	: 00001234
SENSORE S.N.	: 00001234
TEMPERATUR	: +0034.0
P.N.	41320035A-SPXXX

Abb. 86

## 9 Zubehör

**i** Für weitere Details zur Konfiguration und zum Gebrauch beachten Sie bitte das Handbuch des entsprechenden Geräts.

### 9.1 Waschanlage

Der Schwenk-Neige-Kopf muss mit einer externen Pumpe ausgestattet sein, die Wasser für die Reinigung des Glases liefert.

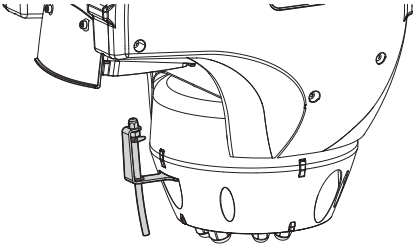


Abb. 87

### 9.2 Wandhalterung

Wandhalterung mit interner Kabelführung.

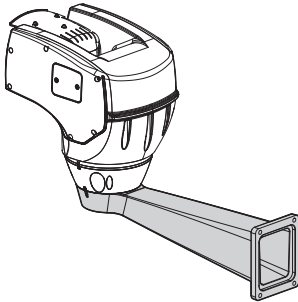


Abb. 88

### 9.3 Halterung für Brüstungsmontage

Brüstungshalterung mit interner Kabelführung.

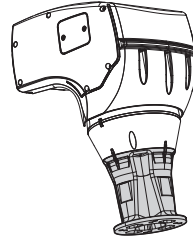


Abb. 89

### 9.4 Deckenbefestigung

**!** Jedes Mal, wenn der Korpus von der Basis genommen wird, sind die Zahnscheiben auszutauschen.

Dank der Deckenmontagehalterung kann die Einheit umgekehrt installiert werden.

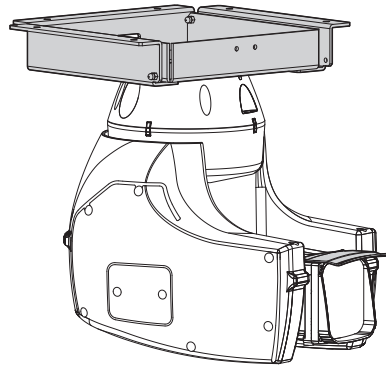



Abb. 90



# 10 Anleitung für den normalen Betrieb

 **Wird die Wärmebildkamera für längere Zeit auf die Sonne gerichtet, kann dies irreparable Schäden an ihrem Sensor verursachen.**

## 10.1 Statusanzeige Schwenk-Neige-Kopf

Während des normalen Betriebes zeigt der Schwenk-Neige-Kopf nach Wahl des Benutzers auf dem Monitor die wie erläutert organisierten Daten. Die Anzeige kann ein- und ausgeschaltet werden (8.1.11 Menü Anzeigen, Seite 39).

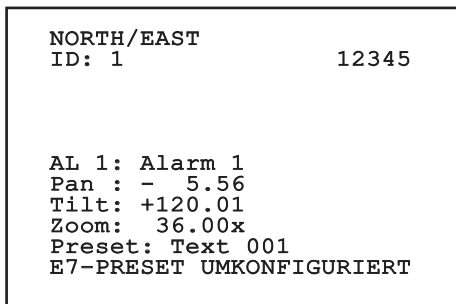


Abb. 91

**NORTH/EAST:** Name des Bereiches, in dem man sich befindet.

**ID:** 1: Empfängeradresse.

**12345:** Die vollständige Liste der bestehenden Alarme.

**AL 1:** Alarm 1: Der Text des letzten Alarms.

**Pan:** - 5.56/Tilt: +120.01/Zoom: 36.00x: Die aktuelle Position von Pan, Tilt und Zoom.

**Preset:** Text 001: Der Name des ausgewählten, aktiven Preset.

**E7-PRESET UMKONFIGURIERT:** Das folgende Feld zeigt die während des Systembetriebs gefundenen Fehler oder die über serielle Leitung empfangenen Befehle an (nur für die empfangenen Befehle kann die Anzeige ein- oder ausgeschaltet werden).

## 10.2 Speichern eines Preset.

### 10.2.1 Schnellspeicherung

Mit der Bedientastatur kann die aktuelle Position gespeichert werden. Für weitere Informationen siehe das Handbuch der verwendeten Tastatur.

Während des Speichervorgangs kann die Geschwindigkeit beim Anfahren des Preset mit den Tasten Focus Far/Focus Near sowie die Wartezeit mit den Tasten Iris Open/Iris Close geändert werden.

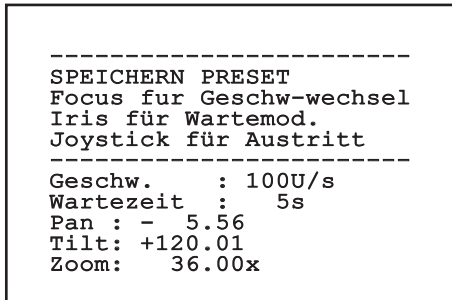


Abb. 92

### 10.2.2 Speichern vom Menü aus

Siehe 8.1.10.3 Menü Preset, Seite 36.

## 10.3 Aufruf einer Position Preset (Scan)

Mithilfe des Kontrollgerätes kann eine zuvor gespeicherte Preset Position aufgerufen werden (weitere Informationen enthält das Handbuch der verwendeten Einrichtung).

## 10.4 Aktivierung Patrol

Für die Aktivierung/Deaktivierung der Funktion siehe Handbuch der verwendeten Steuervorrichtung bzw. entsprechendes Kapitel. (10.13 Spezialbefehle, Seite 52).

Für die Deaktivierung der Funktion den Joystick bewegen oder einen anderen Bewegungstyp abrufen.

Für die Konfiguration dieser Funktion siehe entsprechendes Kapitel. (8.1.10.6 Menü Patrol, Seite 37).

## 10.5 Aktivierung Autopan

Bei der Funktion Autopan werden die 2 gespeicherten Presets kontinuierlich angesteuert.

Für die Aktivierung/Deaktivierung der Funktion siehe Handbuch der verwendeten Steuervorrichtung bzw. entsprechendes Kapitel. (10.13 Spezialbefehle, Seite 52).

Für die Deaktivierung der Funktion den Joystick bewegen oder einen anderen Bewegungstyp abrufen.

Für die Konfiguration dieser Funktion siehe entsprechendes Kapitel. (8.1.10.7 Menü Autopan, Seite 37).

## 10.6 Aufruf einer Strecke (Tour)

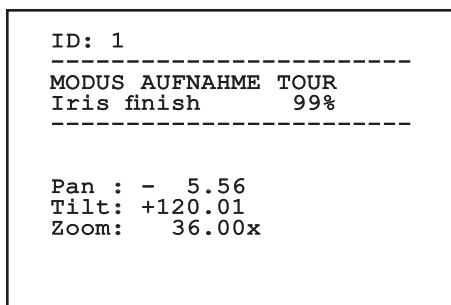
Die Betriebsart Tour ermöglicht es, einen zuvor registrierten Streckenverlauf ständig abzufahren.

Der Schwenk-Neige-Kopf kann bis zu 3 Tour von einer maximalen Dauer von je 2 Minuten speichern.

Zur Speicherung einer Tour auf der Tastatur das Spezialpreset der zu speichernden Tournummer eingeben (10.13 Spezialbefehle, Seite 52).

Um die Aufnahme Tour zu erleichtern, begrenzt der Schwenk-Neige-Kopf automatisch die Geschwindigkeit Pan und Tilt gemäß des Faktors Zoom.

Während der Aufnahme der Tour wird die verbleibende Zeit für die Aufnahme in Prozent visualisiert, siehe Abbildung.



**Abb. 93**


Mit der Taste Iris Open oder Iris Close kann die Aufzeichnung unterbrochen werden.

Um die Wiedergabe einer Tour zu starten, geben Sie auf der Tastatur das Spezialpreset bezüglich der anzuzeigenden Tournummer ein (10.13 Spezialbefehle, Seite 52).


## 10.7 Aufruf der Homeposition

Mithilfe des Kontrollgerätes kann eine zuvor gespeicherte Home (Scan n.1) Position aufgerufen werden (für weitere Informationen siehe das Handbuch des verwendeten Kontrollgerätes).

## 10.8 Aktivierung der Scheibenwischer (Wiper)

 **Der Scheibenwischer ist bei Aussentemperaturen unter 0°C oder bei Glas nicht zu betätigen.**

Für die Aktivierung/Deaktivierung der Funktion siehe Handbuch der verwendeten Steuervorrichtung bzw. entsprechendes Kapitel. (10.13 Spezialbefehle, Seite 52).

 **Der Scheibenwischer schaltet sich automatisch aus, wenn er laufen gelassen wird.**

## 10.9 Aktivierung der Waschanlage (Washer)

Wird der Befehl abgesendet, positioniert sich der Schwenk-Neige-Kopf mit dem Fenster vor der Düse. Es werden nun für eine bestimmte Zeit die Pumpe und der Scheibenwischer aktiviert. Am Ende des Vorgangs kehrt der S-N-Kopf in die Ausgangsposition zurück.

Für die Aktivierung/Deaktivierung der Funktion siehe Handbuch der verwendeten Steuervorrichtung bzw. entsprechendes Kapitel. (10.13 Spezialbefehle, Seite 52).


Bei den Modellen mit Waschanlagen mit Standsensor kann außerdem eine Bildschirmnachricht anzeigen, wenn der Flüssigkeitsstand im Behälter zu gering ist (nur bei Verwendung einer Pumpe mit hoher Druckhöhe).

## 10.10 Reboot der Einheit

Für weitere Infos bitte entsprechendes Kapitel beachten (10.13 Spezialbefehle, Seite 52).

## 10.11 Manuelle Korrektur Fokussierung eines Preset

Mit dem Befehl Scan das Preset aufrufen, dessen Fokussierung geändert werden soll. Die Fokussierung mit den Tasten Focus Far/Focus Near ändern, ohne die Position Pan/Tilt/Zoom zu ändern. Dann das Preset mit dem Befehl Preset speichern.

 **Die manuelle Presetkorrektur ist nur wirksam, wenn die Felder Autofocus Tag/Nacht deaktiviert sind (8.1.10.5 Menü Preset (Utility Preset), Seite 37).**

## 10.12 Umschaltung des sekundären Videoausgangs

Zur Auswahl des Videosignals (integrierten Moduls oder Wärmebildkamera) siehe die Befehle Video 2 integriertes Modul und Video 2 Wärmebildkamera (10.13 Spezialbefehle, Seite 52).

## 10.13 Spezialbefehle

<b>SPEZIALBEFEHLE</b>					
<b>Befehl</b>	<b>Protokoll</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Tour 1 Start Aufnahme	Preset Speichern 77	Preset Speichern 77	Preset Speichern 77	Preset Speichern 77	Preset Speichern 77
		Beginn Speichern des Pattern 3		Preset Speichern 47	Preset 2- speichern
Tour 2 Start Aufnahme	Preset Speichern 78	Preset Speichern 78	Preset Speichern 78	Preset Speichern 78	Preset Speichern 78
				Preset Speichern 48	Preset 3- speichern
Tour 3 Start Aufnahme	Preset Speichern 79	Preset Speichern 79	Preset Speichern 79	Preset Speichern 79	Preset Speichern 79
				Preset Speichern 50	Preset 4- speichern
Tour 1 Start	Preset Speichern 80	Preset Speichern 80	Preset Speichern 80	Preset Speichern 80	Preset Speichern 80
		Einschalten pattern 3		Preset Speichern 51	Pattern 2
Tour 2 Start	Preset Speichern 81	Preset Speichern 81	Preset Speichern 81	Preset Speichern 81	Preset Speichern 81
				Preset Speichern 52	Pattern 3
Tour 3 Start	Preset Speichern 82	Preset Speichern 82	Preset Speichern 82	Preset Speichern 82	Preset Speichern 82
				Preset Speichern 53	Pattern 4
Tour Record Stop	Iris Open/Close	Iris Open/Close	Iris Open/Close	Iris Open/Close	IrisOpen/Close
		Neue Pattern Rettung			Ack

<b>SPEZIALBEFEHLE</b>					
<b>Befehl</b>	<b>Protokoll</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Wiper Start	Preset Speichern 85	Preset Speichern 85	Preset Speichern 85	Preset Speichern 85	Preset Speichern 85
	Aux 3 ON	Aux 3 ON	Aux 3 ON	Preset Speichern 54	Aux 3 ON
	Wip+				
Wiper Stop	Preset Speichern 86	Preset Speichern 86	Preset Speichern 86	Preset Speichern 86	Preset Speichern 86
	Aux 3 OFF	Aux 3 OFF	Aux 3 OFF	Preset Speichern 55	Aux 3 OFF
	Wip-				
Washer	Preset Speichern 87	Preset Speichern 87	Preset Speichern 87	Preset Speichern 87	Preset Speichern 87
	Aux 4 ON	Aux 4 ON	Aux 4 ON	Preset Speichern 56	Aux 4 ON
	Was+				
Nachtmodus On	Preset Speichern 88	Preset Speichern 88	Preset Speichern 88	Preset Speichern 88	Preset Speichern 88
				Preset Speichern 57	
Nachtmodus Off	Preset Speichern 89	Preset Speichern 89	Preset Speichern 89	Preset Speichern 89	Preset Speichern 89
				Preset Speichern 58	
Reboot der Einrichtung	Preset Speichern 94	Preset Speichern 94	Preset Speichern 94	Preset Speichern 94	Preset Speichern 94
	Ini+	Faster+ Zoom out+ Focus far+ Iris open		Preset Speichern 61	
Aktivierung OSM	Preset Speichern 95	Preset Speichern 95	Preset Speichern 95	Preset Speichern 95	Preset Speichern 95
	Men+	Iris open+ Focus+ Zoom out		Preset Speichern 46	

<b>SPEZIALBEFEHLE</b>					
<b>Befehl</b>	<b>Protokoll</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Patrol Start	Preset Speichern 93	Preset Speichern 93	Preset Speichern 93	Preset Speichern 93	Preset Speichern 93
	Pat+	Einschalten pattern 1	Einschalten patrol	Preset Speichern 60	Pattern
Patrol Stop	Preset Speichern 92	Preset Speichern 92	Preset Speichern 92	Preset Speichern 92	Preset Speichern 92
	Joystick	Joystick	Joystick	Joystick	Joystick
	Pat-			Preset Speichern 59	
Autopan Start	Preset Speichern 99	Preset Speichern 99	Preset Speichern 99	Preset Speichern 99	Preset Speichern 99
	Apa+	Einschalten pattern 2	Einschalten Autopan	Preset Speichern 63	Pattern 1
Autopan Stop	Preset Speichern 96	Preset Speichern 96	Preset Speichern 96	Preset Speichern 96	Preset Speichern 96
	Joystick	Joystick	Joystick	Joystick	Joystick
	Apa-			Preset Speichern 62	
FFC betätigen	Preset Speichern 74	Preset Speichern 74	Preset Speichern 74	Preset Speichern 74	Preset Speichern 74
				Preset Speichern 43	
Video 2 thermische Kamera	Preset Speichern 75	Preset Speichern 75	Preset Speichern 75	Preset Speichern 75	Preset Speichern 75
				Preset Speichern 44	
Video 2 integriertes Modul	Preset Speichern 76	Preset Speichern 76	Preset Speichern 76	Preset Speichern 76	Preset Speichern 76
				Preset Speichern 45	

Tab. 12

# 11 Wartung

**⚠** Die Wartung darf nur von Fachleuten vorgenommen werden, die befähigt sind, an elektrischen Schaltkreisen tätig zu werden.

## 11.1 Konfigurationsklon

Sollte es sich als notwendig erweisen, kann ein Backup der Konfiguration des Schwenk-Neige-Kopfes erstellt werden.

Weitere Auskünfte erteilt das Kundendienstcenter von VIDEOTECH.

Die Speicherung oder Zurücksetzung kann an Ort und Stelle mit dem zugehörigen Kabel vorgenommen werden, das dem Lieferumfang des S-N-Kopfes beiliegt. Die Operation kann auch von fern (nur Protokolle VIDEOTECH MACRO und PELCO D) mit einem USB/Seriellen 485 Wandler durchgeführt werden (nicht im Lieferumfang enthalten).

## 11.2 Wechsel der Sicherungen

**⚠ ACHTUNG! Damit ein ständiger Brandschutz garantiert wird, sind die Sicherungen nur in dem gleichen Typ und Wert zu ersetzen. Die Sicherungen sind nur von Fachleuten zu ersetzen.**

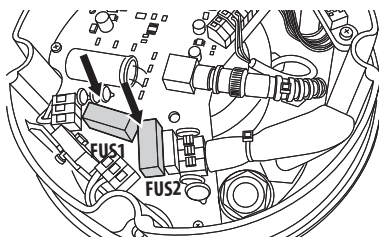


Abb. 94

Die benutzten Schmelzsicherungen sind wie folgt beschrieben.

WECHSEL DER SICHERUNGEN		
Spannung	Schmelz- siche- rung F1	Schmelz- siche- rung F2
24Vac, 50/60Hz	T 4A L 250V 5x20	T 6.3A H 250V 5x20
120Vac, 50/60Hz	T 4A L 250V 5x20	T 4A H 250V 5x20
230Vac, 50/60Hz	T 4A L 250V 5x20	T 2A H 250V 5x20

Tab. 13

Als Alternative eine zugelassene Sicherungen mit denselben Eigenschaften verwenden.

# 12 Reinigung

## 12.1 Reinigung des Glases und der Kunststoffteile

**⚠** Zu vermeiden sind Äthylalkohol, Lösungsmittel, hydrierte Kohlenwasserstoffe, starke Säuren und Alkali. Diese Produkte können die behandelte Oberfläche beschädigen.

Es wird empfohlen, ein weiches Tuch und neutrale mit Wasser verdünnte Seife oder ein spezifisches Reinigungsmittel für Brillengläser zu verwenden.

## 13 Müllentsorgungsstellen



**Dieses Symbol und das entsprechende Recycling-System gelten nur für EULänder und finden in den anderen Ländern der Welt keine Anwendung.**

Ihr Produkt wurde entworfen und hergestellt aus qualitativ hochwertigen Materialien und Komponenten, die recycelt und wiederverwendet werden können.

Dieses Symbol bedeutet, daß elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer von Hausmüll getrennt entsorgt werden sollen.

Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen Sammelstelle oder im Recycling Centre.

In der Europäischen Union gibt es unterschiedliche Sammelsysteme für Elektrik- und Elektronikgeräte.

## 14 Problemlösung

Fordern Sie Fachleute für die Arbeiten an, wenn:

- Die Einheit nach einem Sturz beschädigt ist;
- Die Leistungen der Einheit merklich abgefallen sind.
- Die Einheit trotz der Befolgung sämtlicher Ausführungen in diesem Handbuch nicht korrekt funktioniert.

PROBLEM	<b>Das Produkt lässt sich nicht einschalten.</b>
URSACHE	<i>Falsche Verkabelung, Schmelzsicherungen durchgebrannt.</i>
LÖSUNG	Anschlüsse prüfen. Die Kontinuität der Sicherungen überprüfen und im Falle eines Defektes müssen sie durch die aufgeführten Modelle ersetzt werden.
PROBLEM	<b>Die gespeicherten Preset-Positionen entsprechen nicht dem Bereich der Aufnahme.</b>
URSACHE	<i>Verlust der absoluten Referenzposition.</i>



PROBLEM

**Beim Einschalten bleibt die Schwenk-Neige-Einrichtung blockiert, die folgende Bildschirmseite erscheint:**

Adresse : 1

ENTFROSTUNGSVERF  
LAUFEND...

BLEIBENDE MINUTE: 59

URSACHE

*Die Umgebungstemperatur ist zu niedrig.*

LÖSUNG

Ende des Vorheizvorgangs abwarten. Wenn die Umgebungstemperatur zu niedrig ist, blockiert die Einheit und zeigt den folgenden Bildschirm:

Adresse : 1

ENTFROSTUNGSVERF

-----  
GEBLOCK ES-SYSTEM  
TEMPERATURE ZU NIEDRIG  
-----

PROBLEM

**Fehler E1-AUTOPAN NICHT BEGRENZT.**

URSACHE

*Die beiden als Begrenzungspunkte verwendeten Presets sind nicht programmiert worden.*

LÖSUNG

Die beiden Presets programmieren und anschließend das Konfigurationsmenü der Funktion Autopan aktualisieren (10.2 Speichern eines Preset., Seite 49 e 8.1.10.7 Menü Autopan, Seite 37).

---

PROBLEM	<b>Fehler E2-SCHEIBENWISCHER BLOCKIERT.</b>
URSACHE	<i>Scheibenwischer blockiert oder defekt.</i>
LÖSUNG	Sicherstellen, dass sich der Scheibenwischer ungehindert bewegen kann.

---

PROBLEM	<b>Fehler E3-PATROL OHNE PRESET oder Fehler E4-PATROL NUR 1 PRESET.</b>
URSACHE	<i>Die Presets sind nicht programmiert worden.</i>
LÖSUNG	Zwei oder mehr Presets programmieren, dann das Konfigurationsmenü der Funktion Patrol aktualisieren (10.2 Speichern eines Preset., Seite 49 e 8.1.10.6 Menü Patrol, Seite 37).

---

PROBLEM	<b>Fehler E5-IR TEMP. ZU HOCH oder Fehler E6-IR DEFECT.</b>
URSACHE	<i>Fehlfunktion des Infrarotstrahlers.</i>
LÖSUNG	Das Preset mit dem zugehörigen Befehl speichern (10.2 Speichern eines Preset., Seite 49).

---

PROBLEM	<b>Fehler E7-PRST. NICHT KONFIGURIERT.</b>
URSACHE	<i>Aufruf eines nicht programmierten Preset.</i>
LÖSUNG	Kontaktieren Sie den autorisierten Kundendienst.

---



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PROBLEM	<b>Fehler E8-TOUR NICHT KONFIGURIERT.</b>
URSACHE	<i>Aufruf einer nicht programmierten Tour.</i>
LÖSUNG	Die Tour mit dem zugehörigen Befehl speichern (10.6 Aufruf einer Strecke (Tour), Seite 50).

---

PROBLEM	<b>Fehler E9-TEMP. ZU NIEGRIG.</b>
URSACHE	<i>Die Umgebungstemperatur ist zu niedrig.</i>
LÖSUNG	Die Bewegungen des S-N-Kopfes sind blockiert, um mechanische Schäden zu vermeiden.

---

PROBLEM	<b>Alarmer AL6 :WASSERSTAND NIEDRIG</b>
URSACHE	<i>Niedriger Stand der Scheibenwaschflüssigkeit.</i>
LÖSUNG	Den Pumpenbehälter mit Scheibenwaschflüssigkeit befüllen.

---

# 15 Technische Daten



**ACHTUNG! Die Anlage gehört zum Typ TNV-1. Nicht an Kreisläufe SELV anschließen.**



**ACHTUNG! Zur Senkung der Brandgefahr dürfen nur UL Listed oder CSA zertifizierte Kabel benutzt werden, die mindestens der Größe 0.13mm<sup>2</sup> (26 AWG) entsprechen.**

## 15.1 Allgemeines

Konstruktion aus Aluminiumdruckguss und Technopolymer

Pulverlackierung mit Epoxydpolyester, Farbe RAL9002

Fensterscheibe aus Germanium für die Wärmebildkamera

Installationsfreundlich dank selbstzentrierendem Stecker

Kein mechanisches Spiel

Schnelle Einrichtung und Setup

Dynamisches Kontrollsystem der Positionierung

16-stellige Zeichenkette für die Betitelung der Bereiche und Vorwahlpositionen

Funktionen: Autopan, Preset, Patrol, Tour (bis zu 3), Autoflip

## 15.2 Mechanik

Kabelverschraubungen: 2xM16, 2xM12

Horizontale Drehung: kontinuierlich

Neigung: -90° bis +90°

Schwenkgeschwindigkeit rechts - links (einstellbar): von 0.1° bis 200°/s

Neigegeschwindigkeit Auf-Ab einstellbar (einstellbar): von 0.1° bis 200°/s

Genauigkeit bei der Anfahrt von Vorwahlpositionen: 0.05°

Einheitsgewicht: 12,5 kg

## 15.3 Elektrik

Versorgungsspannung/Stromaufnahme:

- 230Vac, 0.4A, 50/60Hz
- 24Vac, 4A, 50/60Hz
- 120Vac, 0.8A, 50/60Hz

Leistungsaufnahme

- 40W: S-N-Kopf unbewegt, ohne Heizung
- 60W: S-N-Kopf in Bewegung, ohne Heizung
- 125W: Spitzenverbrauch, laufende Heizung

Größe Eingangskabel: AWG 16-AWG 19

Maße Signalkabel: AWG 16-AWG 30

Videoleitung: Koax-Kabel (1Vpp, 75Ohm)

I/O Alarm-Karte

- Alarmeingänge: 6
- Relais-Ausgänge: 2 (2A, 30Vac/60Vdc max)

## 15.4 Kommunikation

Durch OSD konfigurierbar

Serielle Schnittstelle RS485 half duplex, RS422 full duplex und kaskadierte Konfiguration

Fernaktualisierung der Firmware an der Konsole (nur Protokolle VIDEOTEC MACRO und PELCO D)

Bis zu 1023 Einheiten über Dipschalter adressierbar

## 15.5 Protokolle

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

Maximale Anzahl der Presets für Protokoll

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, nur von OSD (On Screen Display)

# 15.6 Kamera

WÄRMEBILDKAMERAS (AUFLÖSUNG 320X256)										
	Objectiv 35mm		Objectiv 25mm		Objectiv 19mm		Objectiv 13mm		Objectiv 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Bildaufnehmer	Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)	
Auflösung	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Pixelzahl	25µm		25µm		25µm		25µm		25µm	
Spektrale Empfindlichkeit - langwellige Infrarotstrahlung (LWIR)	von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm	
Interne Blende (nur zur Sensor-Kompensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Digital-Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Bildwiederholffrequenz	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Hohe Bildwiederholffrequenz	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Szenebereich (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Szenebereich (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontaler Sehbereich	13°		18°		24°		34°		48°	
Vertikaler Sehbereich	10°		14°		18°		26°		37°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Thermische Empfindlichkeit (NEdT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Mensch (Peilung / Erkennung / Identifizierung)	800m / 200m / 105m		590m / 148m / 75m		450m / 112m / 56m		300m / 74m / 37m		205m / 52m / 26m	
Auto (Peilung / Erkennung / Identifizierung)	2250m / 590m / 290m		1650m / 430m / 215m		1280m / 330m / 165m		840m / 215m / 108m		590m / 150m / 74m	

Tab. 14

**WÄRMEBILDKAMERAS (AUFLÖSUNG 640X512)**

	Objectiv 35mm		Objectiv 25mm		Objectiv 19mm		Objectiv 13mm		Objectiv 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Bildaufnehmer	Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)		Ungekühltes Vanadiumoxid-Mikrobolometer (VOx)	
Auflösung	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Pixelzahl	17µm		17µm		17µm		17µm		17µm	
Spektrale Empfindlichkeit - langwellige Infrarotstrahlung (LWIR)	von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm		von 7.5µm bis 13.5µm	
Interne Blende (nur zur Sensor-Kompensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Digital-Zoom	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Bildwiederholfrequenz	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Hohe Bildwiederholfrequenz	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Szenebereich (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Szenebereich (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontaler Sehbereich	18°		25°		32°		45°		69°	
Vertikaler Sehbereich	14°		20°		26°		37°		56°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Thermische Empfindlichkeit (NEDT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Mensch (Peilung / Erkennung / Identifizierung)	1140m / 280m / 142m		820m / 210m / 104m		570m / 144m / 72m		390m / 95m / 47m		250m / 63m / 31m	
Auto (Peilung / Erkennung / Identifizierung)	3000m / 800m / 200m		2200m / 580m / 290m		1550m / 400m / 200m		1080m / 275m / 140m		720m / 175m / 88m	

Tab. 15

ANALOG KAMERAS (DAY/NIGHT)				
	Day/Night 36x		Day/Night 28x Hohe Empfindlichkeit	
	PAL	NTSC	PAL	NTSC
Zoom optique	36x		28x	
Wide Dynamic Range (Fix/Auto)	✓		–	
True progressive SCAN	✓		–	
Digitale Bildstabilisierung	✓		✓	
Weißabgleich	Auto, ATW, Indoor, Outdoor (Fix/Auto), Natriumdampfampe (Fix/Auto)		Auto, ATW, Indoor, Outdoor (Fix/Auto), Natriumdampfampe (Fix/Auto)	
Horizontale Hochoauflösung	Bis zu 550 TV-Linien		Bis zu 550 TV-Linien	
Day/Night (Auto ICR)	✓		✓	
Bildsensor	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Anzahl der effektiven Pixel	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Min. Farbe- Beleuchtung (IR-Cut Filter = OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Min. B/W Beleuchtung	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
Automatische Verlängerung der Belichtungszeit, um die Nachtsicht zu verbessern	✓		✓	
Geräuschabstand	Über 50 dB		Über 50 dB	
AE-Kontrolle	Automatik, Verschlusspriorität, Blendenpriorität, Helligkeitspriorität und Manuell		Automatik, Verschlusspriorität, Blendenpriorität, Helligkeitspriorität und Manuell	
Hintergrundbeleuchtung-Kompensation	On/Off		On/Off	
Sphärische Maskierung (3D) von Privatzonen mit automatischer Aktualisierung	✓		✓	
Privatzonenmaskierung	On/Off (24 Positionen)		On/Off (24 Positionen)	
Höchstzahl der anzeigbaren Maskierungsblöcke	8		8	
Auflösung der Maskierungsblöcke	160x120 HxV		160x120 HxV	
Maskierung	Bis zu 15 Maskierungstypen: 14 Farbe oder Mosaik		Bis zu 15 Maskierungstypen: 14 Farbe oder Mosaik	
Fokussiersystem	Auto (Sensibilität: normal, niedrig), Trigger PTZ, manuell		Auto (Sensibilität: normal, niedrig), Trigger PTZ, manuell	
Intelligente Liniensteuerung	Automatische Linienreset		Automatische Linienreset	
Hohe Zoom-Kapazität und weitreichender horizontaler Blickwinkel	✓		✓	
Zoom optique	36x, f=3,4 (Weitwinkel) bis 122,4mm (Tele) / F 1,6 bis F 4,5		28x, f=3,5 (Weitwinkel) bis 98mm (Tele) / F 1,35 bis F 3,7	
Digital-Zoom	12x (432x mit optischem Zoom)		12x (336x mit optischem Zoom)	
Sehwinkel (A)	57.8 Grad (Weitwinkel) bis 1,7 Grad (Tele)		55.8 Grad (Weitwinkel) bis 2,1 Grad (Tele)	
Mindestentfernung des Objekts	320mm (Weitwinkel) bis 1500mm (Tele)		10mm (Weitwinkel) bis 1500mm (Tele)	
Elektronische Iris-Geschwindigkeit	1/1 ÷ 1/10000s		1/1 ÷ 1/10000s	

Tab. 16

## 15.7 Umgebung

---

Innen/Außen

Betriebstemperatur (mit Heizung): von -40°C bis zu +60°C

---

Windfestigkeit

- In Betrieb: bis zu 160km/h
  - Fest stehend: bis zu 210km/h
- 

Impulsfestigkeit: bis zu 2kV zwischen zwei Leitungen, bis zu 4kV zwischen Leitung und Erde (Klasse 4)

## 15.8 Zertifizierungen

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Elektrische Sicherheit (CE): EN60950-1, IEC60950-1

Elektromagnetische Verträglichkeit (CE): EN610000-6-4, EN50130-4, EN55022 (Klasse A), EN61000-6-4, FCC Part 15 (Klasse A)

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Außeninstallation (CE): EN60950-22, IEC60950-22

Schutzart IP: EN60529 (IP66)

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UL- Zertifizierung: cULus Listed (TYPE 4X)

---

EAC-Zertifizierung

# 16 Technische Zeichnungen



Die Abmessungen der Zeichnungen sind in Millimeter angegeben.

DE - Deutsch - Bedienungsanleitung

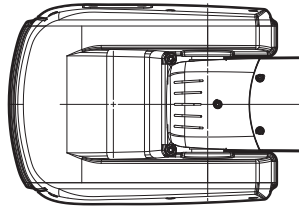
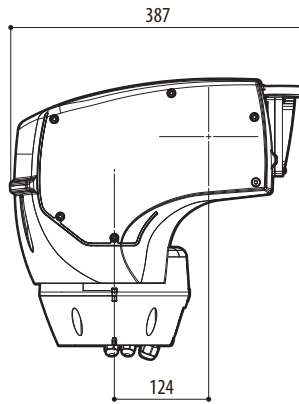
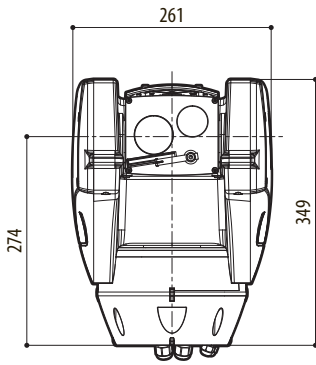


Abb. 95 ULISSE COMPACT THERMAL.



# A Anhang - Adressentabelle



Der nach oben zeigende Kipphebel des Schalters steht für den Wert 1 (ON). Der nach unten zeigende Kipphebel des Dipschalters steht für den Wert 0 (OFF).

Nachstehend sind alle Kombinationsmöglichkeiten aufgelistet.

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse unfähige	Adresse 512
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 1	Adresse 513
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 2	Adresse 514
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 3	Adresse 515
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 4	Adresse 516
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 5	Adresse 517
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 6	Adresse 518
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Adresse 7	Adresse 519
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 8	Adresse 520
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 9	Adresse 521
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 10	Adresse 522
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Adresse 11	Adresse 523
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 12	Adresse 524
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 13	Adresse 525
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 14	Adresse 526
ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Adresse 15	Adresse 527
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 16	Adresse 528
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 17	Adresse 529
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 18	Adresse 530
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Adresse 19	Adresse 531
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 20	Adresse 532
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 21	Adresse 533
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 22	Adresse 534
ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Adresse 23	Adresse 535
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 24	Adresse 536
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 25	Adresse 537
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 26	Adresse 538
ON	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Adresse 27	Adresse 539
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 28	Adresse 540
ON	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 29	Adresse 541
OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 30	Adresse 542
ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Adresse 31	Adresse 543
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 32	Adresse 544
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 33	Adresse 545
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 34	Adresse 546
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Adresse 35	Adresse 547
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 36	Adresse 548
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 37	Adresse 549
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 38	Adresse 550

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Adresse 39	Adresse 551
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 40	Adresse 552
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 41	Adresse 553
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 42	Adresse 554
ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Adresse 43	Adresse 555
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 44	Adresse 556
ON	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 45	Adresse 557
OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 46	Adresse 558
ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Adresse 47	Adresse 559
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 48	Adresse 560
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 49	Adresse 561
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 50	Adresse 562
ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Adresse 51	Adresse 563
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 52	Adresse 564
ON	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 53	Adresse 565
OFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 54	Adresse 566
ON	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Adresse 55	Adresse 567
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 56	Adresse 568
ON	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 57	Adresse 569
OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 58	Adresse 570
ON	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Adresse 59	Adresse 571
OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 60	Adresse 572
ON	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 61	Adresse 573
OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 62	Adresse 574
ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	Adresse 63	Adresse 575
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 64	Adresse 576
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 65	Adresse 577
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 66	Adresse 578
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Adresse 67	Adresse 579
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 68	Adresse 580
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 69	Adresse 581
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 70	Adresse 582
ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Adresse 71	Adresse 583
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 72	Adresse 584
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 73	Adresse 585
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 74	Adresse 586
ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Adresse 75	Adresse 587
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 76	Adresse 588
ON	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 77	Adresse 589
OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 78	Adresse 590
ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Adresse 79	Adresse 591
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 80	Adresse 592
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 81	Adresse 593
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 82	Adresse 594
ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Adresse 83	Adresse 595

**ADRESSEKONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 84	Adresse 596
ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 85	Adresse 597
OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 86	Adresse 598
ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Adresse 87	Adresse 599
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 88	Adresse 600
ON	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 89	Adresse 601
OFF	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 90	Adresse 602
ON	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Adresse 91	Adresse 603
OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 92	Adresse 604
ON	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 93	Adresse 605
OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 94	Adresse 606
ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	Adresse 95	Adresse 607
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 96	Adresse 608
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 97	Adresse 609
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 98	Adresse 610
ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Adresse 99	Adresse 611
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 100	Adresse 612
ON	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 101	Adresse 613
OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 102	Adresse 614
ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Adresse 103	Adresse 615
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 104	Adresse 616
ON	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 105	Adresse 617
OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 106	Adresse 618
ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Adresse 107	Adresse 619
OFF	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 108	Adresse 620
ON	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 109	Adresse 621
OFF	ON	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 110	Adresse 622
ON	ON	ON	ON	OFF	ON	ON	OFF	OFF	Adresse 111	Adresse 623
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 112	Adresse 624
ON	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 113	Adresse 625
OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 114	Adresse 626
ON	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Adresse 115	Adresse 627
OFF	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 116	Adresse 628
ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 117	Adresse 629
OFF	ON	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 118	Adresse 630
ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	Adresse 119	Adresse 631
OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 120	Adresse 632
ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 121	Adresse 633
OFF	ON	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 122	Adresse 634
ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	Adresse 123	Adresse 635
OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	Adresse 124	Adresse 636
ON	OFF	ON	ON	ON	ON	ON	OFF	OFF	Adresse 125	Adresse 637
OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	Adresse 126	Adresse 638
ON	ON	ON	ON	ON	ON	ON	OFF	OFF	Adresse 127	Adresse 639
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 128	Adresse 640

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 129	Adresse 641
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 130	Adresse 642
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Adresse 131	Adresse 643
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 132	Adresse 644
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 133	Adresse 645
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 134	Adresse 646
ON	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Adresse 135	Adresse 647
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 136	Adresse 648
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 137	Adresse 649
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 138	Adresse 650
ON	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Adresse 139	Adresse 651
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 140	Adresse 652
ON	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 141	Adresse 653
OFF	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 142	Adresse 654
ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Adresse 143	Adresse 655
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 144	Adresse 656
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 145	Adresse 657
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 146	Adresse 658
ON	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Adresse 147	Adresse 659
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 148	Adresse 660
ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 149	Adresse 661
OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 150	Adresse 662
ON	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Adresse 151	Adresse 663
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 152	Adresse 664
ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 153	Adresse 665
OFF	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 154	Adresse 666
ON	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Adresse 155	Adresse 667
OFF	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 156	Adresse 668
ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 157	Adresse 669
OFF	ON	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 158	Adresse 670
ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	Adresse 159	Adresse 671
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 160	Adresse 672
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 161	Adresse 673
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 162	Adresse 674
ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Adresse 163	Adresse 675
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 164	Adresse 676
ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 165	Adresse 677
OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 166	Adresse 678
ON	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Adresse 167	Adresse 679
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 168	Adresse 680
ON	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 169	Adresse 681
OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 170	Adresse 682
ON	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Adresse 171	Adresse 683
OFF	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 172	Adresse 684
ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 173	Adresse 685

**ADRESSEKONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 174	Adresse 686
ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	Adresse 175	Adresse 687
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 176	Adresse 688
ON	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 177	Adresse 689
OFF	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 178	Adresse 690
ON	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Adresse 179	Adresse 691
OFF	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 180	Adresse 692
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 181	Adresse 693
OFF	ON	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 182	Adresse 694
ON	ON	ON	OFF	ON	ON	OFF	ON	OFF	Adresse 183	Adresse 695
OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 184	Adresse 696
ON	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 185	Adresse 697
OFF	ON	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 186	Adresse 698
ON	ON	OFF	ON	ON	ON	OFF	ON	OFF	Adresse 187	Adresse 699
OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	Adresse 188	Adresse 700
ON	OFF	ON	ON	ON	ON	OFF	ON	OFF	Adresse 189	Adresse 701
OFF	ON	ON	ON	ON	ON	OFF	ON	OFF	Adresse 190	Adresse 702
ON	ON	ON	ON	ON	ON	OFF	ON	OFF	Adresse 191	Adresse 703
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 192	Adresse 704
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 193	Adresse 705
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 194	Adresse 706
ON	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Adresse 195	Adresse 707
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 196	Adresse 708
ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 197	Adresse 709
OFF	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 198	Adresse 710
ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Adresse 199	Adresse 711
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 200	Adresse 712
ON	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 201	Adresse 713
OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 202	Adresse 714
ON	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Adresse 203	Adresse 715
OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 204	Adresse 716
ON	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 205	Adresse 717
OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 206	Adresse 718
ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	Adresse 207	Adresse 719
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 208	Adresse 720
ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 209	Adresse 721
OFF	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 210	Adresse 722
ON	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Adresse 211	Adresse 723
OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 212	Adresse 724
ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 213	Adresse 725
OFF	ON	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 214	Adresse 726
ON	ON	ON	OFF	ON	OFF	ON	ON	OFF	Adresse 215	Adresse 727
OFF	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 216	Adresse 728
ON	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 217	Adresse 729
OFF	ON	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 218	Adresse 730

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	OFF	ON	ON	OFF	ON	ON	OFF	Adresse 219	Adresse 731
OFF	OFF	ON	ON	ON	OFF	ON	ON	OFF	Adresse 220	Adresse 732
ON	OFF	ON	ON	ON	OFF	ON	ON	OFF	Adresse 221	Adresse 733
OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	Adresse 222	Adresse 734
ON	ON	ON	ON	ON	OFF	ON	ON	OFF	Adresse 223	Adresse 735
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 224	Adresse 736
ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 225	Adresse 737
OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 226	Adresse 738
ON	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Adresse 227	Adresse 739
OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 228	Adresse 740
ON	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 229	Adresse 741
OFF	ON	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 230	Adresse 742
ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	Adresse 231	Adresse 743
OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 232	Adresse 744
ON	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 233	Adresse 745
OFF	ON	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 234	Adresse 746
ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	Adresse 235	Adresse 747
OFF	OFF	ON	ON	OFF	ON	ON	ON	OFF	Adresse 236	Adresse 748
ON	OFF	ON	ON	OFF	ON	ON	ON	OFF	Adresse 237	Adresse 749
OFF	ON	ON	ON	OFF	ON	ON	ON	OFF	Adresse 238	Adresse 750
ON	ON	ON	ON	OFF	ON	ON	ON	OFF	Adresse 239	Adresse 751
OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 240	Adresse 752
ON	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 241	Adresse 753
OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 242	Adresse 754
ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	Adresse 243	Adresse 755
OFF	OFF	ON	OFF	ON	ON	ON	ON	OFF	Adresse 244	Adresse 756
ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	Adresse 245	Adresse 757
OFF	ON	ON	OFF	ON	ON	ON	ON	OFF	Adresse 246	Adresse 758
ON	ON	ON	OFF	ON	ON	ON	ON	OFF	Adresse 247	Adresse 759
OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	Adresse 248	Adresse 760
ON	OFF	OFF	ON	ON	ON	ON	ON	OFF	Adresse 249	Adresse 761
OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	Adresse 250	Adresse 762
ON	ON	OFF	ON	ON	ON	ON	ON	OFF	Adresse 251	Adresse 763
OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	Adresse 252	Adresse 764
ON	OFF	ON	ON	ON	ON	ON	ON	OFF	Adresse 253	Adresse 765
OFF	ON	ON	ON	ON	ON	ON	ON	OFF	Adresse 254	Adresse 766
ON	ON	ON	ON	ON	ON	ON	ON	OFF	Adresse 255	Adresse 767
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 256	Adresse 768
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 257	Adresse 769
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 258	Adresse 770
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Adresse 259	Adresse 771
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 260	Adresse 772
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 261	Adresse 773
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 262	Adresse 774
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Adresse 263	Adresse 775

**ADRESSEKONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 264	Adresse 776
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 265	Adresse 777
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 266	Adresse 778
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Adresse 267	Adresse 779
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 268	Adresse 780
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 269	Adresse 781
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 270	Adresse 782
ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Adresse 271	Adresse 783
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 272	Adresse 784
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 273	Adresse 785
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 274	Adresse 786
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Adresse 275	Adresse 787
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 276	Adresse 788
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 277	Adresse 789
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 278	Adresse 790
ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Adresse 279	Adresse 791
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 280	Adresse 792
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 281	Adresse 793
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 282	Adresse 794
ON	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Adresse 283	Adresse 795
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 284	Adresse 796
ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 285	Adresse 797
OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 286	Adresse 798
ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	Adresse 287	Adresse 799
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 288	Adresse 800
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 289	Adresse 801
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 290	Adresse 802
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Adresse 291	Adresse 803
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 292	Adresse 804
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 293	Adresse 805
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 294	Adresse 806
ON	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Adresse 295	Adresse 807
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 296	Adresse 808
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 297	Adresse 809
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 298	Adresse 810
ON	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Adresse 299	Adresse 811
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 300	Adresse 812
ON	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 301	Adresse 813
OFF	ON	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 302	Adresse 814
ON	ON	ON	ON	OFF	ON	OFF	OFF	ON	Adresse 303	Adresse 815
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 304	Adresse 816
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 305	Adresse 817
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 306	Adresse 818
ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Adresse 307	Adresse 819
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 308	Adresse 820

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 309	Adresse 821
OFF	ON	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 310	Adresse 822
ON	ON	ON	OFF	ON	ON	OFF	OFF	ON	Adresse 311	Adresse 823
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 312	Adresse 824
ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 313	Adresse 825
OFF	ON	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 314	Adresse 826
ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	Adresse 315	Adresse 827
OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	Adresse 316	Adresse 828
ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	Adresse 317	Adresse 829
OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	Adresse 318	Adresse 830
ON	ON	ON	ON	ON	ON	OFF	OFF	ON	Adresse 319	Adresse 831
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 320	Adresse 832
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 321	Adresse 833
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 322	Adresse 834
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Adresse 323	Adresse 835
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 324	Adresse 836
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 325	Adresse 837
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 326	Adresse 838
ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Adresse 327	Adresse 839
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 328	Adresse 840
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 329	Adresse 841
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 330	Adresse 842
ON	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Adresse 331	Adresse 843
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 332	Adresse 844
ON	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 333	Adresse 845
OFF	ON	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 334	Adresse 846
ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	Adresse 335	Adresse 847
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 336	Adresse 848
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 337	Adresse 849
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 338	Adresse 850
ON	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Adresse 339	Adresse 851
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 340	Adresse 852
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 341	Adresse 853
OFF	ON	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 342	Adresse 854
ON	ON	ON	OFF	ON	OFF	ON	OFF	ON	Adresse 343	Adresse 855
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 344	Adresse 856
ON	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 345	Adresse 857
OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 346	Adresse 858
ON	ON	OFF	ON	ON	OFF	ON	OFF	ON	Adresse 347	Adresse 859
OFF	OFF	ON	ON	ON	OFF	ON	OFF	ON	Adresse 348	Adresse 860
ON	OFF	ON	ON	ON	OFF	ON	OFF	ON	Adresse 349	Adresse 861
OFF	ON	ON	ON	ON	OFF	ON	OFF	ON	Adresse 350	Adresse 862
ON	ON	ON	ON	ON	OFF	ON	OFF	ON	Adresse 351	Adresse 863
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 352	Adresse 864
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 353	Adresse 865



**ADRESSEKONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 354	Adresse 866
ON	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Adresse 355	Adresse 867
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 356	Adresse 868
ON	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 357	Adresse 869
OFF	ON	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 358	Adresse 870
ON	ON	ON	OFF	OFF	ON	ON	OFF	ON	Adresse 359	Adresse 871
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 360	Adresse 872
ON	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 361	Adresse 873
OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 362	Adresse 874
ON	ON	OFF	ON	OFF	ON	ON	OFF	ON	Adresse 363	Adresse 875
OFF	OFF	ON	ON	OFF	ON	ON	OFF	ON	Adresse 364	Adresse 876
ON	OFF	ON	ON	OFF	ON	ON	OFF	ON	Adresse 365	Adresse 877
OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	Adresse 366	Adresse 878
ON	ON	ON	ON	OFF	ON	ON	OFF	ON	Adresse 367	Adresse 879
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 368	Adresse 880
ON	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 369	Adresse 881
OFF	ON	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 370	Adresse 882
ON	ON	OFF	OFF	ON	ON	ON	OFF	ON	Adresse 371	Adresse 883
OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	Adresse 372	Adresse 884
ON	OFF	ON	OFF	ON	ON	ON	OFF	ON	Adresse 373	Adresse 885
OFF	ON	ON	OFF	ON	ON	ON	OFF	ON	Adresse 374	Adresse 886
ON	ON	ON	OFF	ON	ON	ON	OFF	ON	Adresse 375	Adresse 887
OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	Adresse 376	Adresse 888
ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	Adresse 377	Adresse 889
OFF	ON	OFF	ON	ON	ON	ON	OFF	ON	Adresse 378	Adresse 890
ON	ON	OFF	ON	ON	ON	ON	OFF	ON	Adresse 379	Adresse 891
OFF	OFF	ON	ON	ON	ON	ON	OFF	ON	Adresse 380	Adresse 892
ON	OFF	ON	ON	ON	ON	ON	OFF	ON	Adresse 381	Adresse 893
OFF	ON	ON	ON	ON	ON	ON	OFF	ON	Adresse 382	Adresse 894
ON	ON	ON	ON	ON	ON	ON	OFF	ON	Adresse 383	Adresse 895
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 384	Adresse 896
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 385	Adresse 897
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 386	Adresse 898
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Adresse 387	Adresse 899
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 388	Adresse 900
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 389	Adresse 901
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 390	Adresse 902
ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Adresse 391	Adresse 903
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 392	Adresse 904
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 393	Adresse 905
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 394	Adresse 906
ON	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Adresse 395	Adresse 907
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 396	Adresse 908
ON	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 397	Adresse 909
OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 398	Adresse 910

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	Adresse 399	Adresse 911
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 400	Adresse 912
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 401	Adresse 913
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 402	Adresse 914
ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Adresse 403	Adresse 915
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 404	Adresse 916
ON	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 405	Adresse 917
OFF	ON	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 406	Adresse 918
ON	ON	ON	OFF	ON	OFF	OFF	ON	ON	Adresse 407	Adresse 919
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 408	Adresse 920
ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 409	Adresse 921
OFF	ON	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 410	Adresse 922
ON	ON	OFF	ON	ON	OFF	OFF	ON	ON	Adresse 411	Adresse 923
OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	Adresse 412	Adresse 924
ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	Adresse 413	Adresse 925
OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	Adresse 414	Adresse 926
ON	ON	ON	ON	ON	OFF	OFF	ON	ON	Adresse 415	Adresse 927
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 416	Adresse 928
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 417	Adresse 929
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 418	Adresse 930
ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Adresse 419	Adresse 931
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 420	Adresse 932
ON	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 421	Adresse 933
OFF	ON	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 422	Adresse 934
ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	Adresse 423	Adresse 935
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 424	Adresse 936
ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 425	Adresse 937
OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 426	Adresse 938
ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	Adresse 427	Adresse 939
OFF	OFF	ON	ON	OFF	ON	OFF	ON	ON	Adresse 428	Adresse 940
ON	OFF	ON	ON	OFF	ON	OFF	ON	ON	Adresse 429	Adresse 941
OFF	ON	ON	ON	OFF	ON	OFF	ON	ON	Adresse 430	Adresse 942
ON	ON	ON	ON	OFF	ON	OFF	ON	ON	Adresse 431	Adresse 943
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 432	Adresse 944
ON	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 433	Adresse 945
OFF	ON	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 434	Adresse 946
ON	ON	OFF	OFF	ON	ON	OFF	ON	ON	Adresse 435	Adresse 947
OFF	OFF	ON	OFF	ON	ON	OFF	ON	ON	Adresse 436	Adresse 948
ON	OFF	ON	OFF	ON	ON	OFF	ON	ON	Adresse 437	Adresse 949
OFF	ON	ON	OFF	ON	ON	OFF	ON	ON	Adresse 438	Adresse 950
ON	ON	ON	OFF	ON	ON	OFF	ON	ON	Adresse 439	Adresse 951
OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	Adresse 440	Adresse 952
ON	OFF	OFF	ON	ON	ON	OFF	ON	ON	Adresse 441	Adresse 953
OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	Adresse 442	Adresse 954
ON	ON	OFF	ON	ON	ON	OFF	ON	ON	Adresse 443	Adresse 955

**ADRESSEKONFIGURATION (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	Adresse 444	Adresse 956
ON	OFF	ON	ON	ON	ON	OFF	ON	ON	Adresse 445	Adresse 957
OFF	ON	ON	ON	ON	ON	OFF	ON	ON	Adresse 446	Adresse 958
ON	ON	ON	ON	ON	ON	OFF	ON	ON	Adresse 447	Adresse 959
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 448	Adresse 960
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 449	Adresse 961
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 450	Adresse 962
ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Adresse 451	Adresse 963
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 452	Adresse 964
ON	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 453	Adresse 965
OFF	ON	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 454	Adresse 966
ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	Adresse 455	Adresse 967
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 456	Adresse 968
ON	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 457	Adresse 969
OFF	ON	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 458	Adresse 970
ON	ON	OFF	ON	OFF	OFF	ON	ON	ON	Adresse 459	Adresse 971
OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	Adresse 460	Adresse 972
ON	OFF	ON	ON	OFF	OFF	ON	ON	ON	Adresse 461	Adresse 973
OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	Adresse 462	Adresse 974
ON	ON	ON	ON	OFF	OFF	ON	ON	ON	Adresse 463	Adresse 975
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 464	Adresse 976
ON	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 465	Adresse 977
OFF	ON	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 466	Adresse 978
ON	ON	OFF	OFF	ON	OFF	ON	ON	ON	Adresse 467	Adresse 979
OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON	Adresse 468	Adresse 980
ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	Adresse 469	Adresse 981
OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	Adresse 470	Adresse 982
ON	ON	ON	OFF	ON	OFF	ON	ON	ON	Adresse 471	Adresse 983
OFF	OFF	OFF	ON	ON	OFF	ON	ON	ON	Adresse 472	Adresse 984
ON	OFF	OFF	ON	ON	OFF	ON	ON	ON	Adresse 473	Adresse 985
OFF	ON	OFF	ON	ON	OFF	ON	ON	ON	Adresse 474	Adresse 986
ON	ON	OFF	ON	ON	OFF	ON	ON	ON	Adresse 475	Adresse 987
OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	Adresse 476	Adresse 988
ON	OFF	ON	ON	ON	OFF	ON	ON	ON	Adresse 477	Adresse 989
OFF	ON	ON	ON	ON	OFF	ON	ON	ON	Adresse 478	Adresse 990
ON	ON	ON	ON	ON	OFF	ON	ON	ON	Adresse 479	Adresse 991
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 480	Adresse 992
ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 481	Adresse 993
OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 482	Adresse 994
ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	Adresse 483	Adresse 995
OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	Adresse 484	Adresse 996
ON	OFF	ON	OFF	OFF	ON	ON	ON	ON	Adresse 485	Adresse 997
OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	Adresse 486	Adresse 998
ON	ON	ON	OFF	OFF	ON	ON	ON	ON	Adresse 487	Adresse 999
OFF	OFF	OFF	ON	OFF	ON	ON	ON	ON	Adresse 488	Adresse 1000

ADRESSEKONFIGURATION (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	ON	OFF	ON	ON	ON	ON	Adresse 489	Adresse 1001
OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	Adresse 490	Adresse 1002
ON	ON	OFF	ON	OFF	ON	ON	ON	ON	Adresse 491	Adresse 1003
OFF	OFF	ON	ON	OFF	ON	ON	ON	ON	Adresse 492	Adresse 1004
ON	OFF	ON	ON	OFF	ON	ON	ON	ON	Adresse 493	Adresse 1005
OFF	ON	ON	ON	OFF	ON	ON	ON	ON	Adresse 494	Adresse 1006
ON	ON	ON	ON	OFF	ON	ON	ON	ON	Adresse 495	Adresse 1007
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	Adresse 496	Adresse 1008
ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	Adresse 497	Adresse 1009
OFF	ON	OFF	OFF	ON	ON	ON	ON	ON	Adresse 498	Adresse 1010
ON	ON	OFF	OFF	ON	ON	ON	ON	ON	Adresse 499	Adresse 1011
OFF	OFF	ON	OFF	ON	ON	ON	ON	ON	Adresse 500	Adresse 1012
ON	OFF	ON	OFF	ON	ON	ON	ON	ON	Adresse 501	Adresse 1013
OFF	ON	ON	OFF	ON	ON	ON	ON	ON	Adresse 502	Adresse 1014
ON	ON	ON	OFF	ON	ON	ON	ON	ON	Adresse 503	Adresse 1015
OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	Adresse 504	Adresse 1016
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	Adresse 505	Adresse 1017
OFF	ON	OFF	ON	ON	ON	ON	ON	ON	Adresse 506	Adresse 1018
ON	ON	OFF	ON	ON	ON	ON	ON	ON	Adresse 507	Adresse 1019
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	Adresse 508	Adresse 1020
ON	OFF	ON	ON	ON	ON	ON	ON	ON	Adresse 509	Adresse 1021
OFF	ON	ON	ON	ON	ON	ON	ON	ON	Adresse 510	Adresse 1022
ON	ON	ON	ON	ON	ON	ON	ON	ON	Adresse 511	Adresse 1023

Tab. 17



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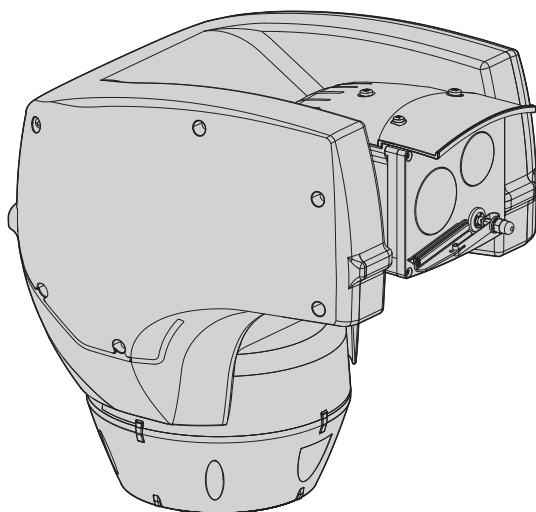
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**MNVUCT\_1511\_DE**



# ULISSE COMPACT THERMAL

PTZ Dual Vision-камера, Day/Night и тепловизор, для  
эксплуатации в условиях полной темноты







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# 1 Информация о настоящем руководстве

Перед монтажом и использованием настоящего блока, внимательно прочитайте настоящее руководство. Хранить данное руководство под рукой для будущих консультаций.

## 1.1 Типографские обозначения



### ОПАСНОСТЬ!

Повышенная опасность.

Опасность удара электрическим током. Если не указано иным образом, отключите питание, прежде чем приступить к выполнению операций, если не указано иным образом, отключите питание.



### ОПАСНОСТЬ!

Опасность механической природы. Риск раздавливания или отрезания.



### ОПАСНОСТЬ!

Горячая поверхность.

Следует избегать контакта. Горячие поверхности могут причинить поражения человеку в случае контакта.



### ПРЕДУПРЕЖДЕНИЕ!

Средняя опасность.

Эта операция очень важна для правильной работы системы. Просим внимательно прочитать приведенную процедуру и выполнить ее указанным способом.



### INFO

Описание характеристик системы. Рекомендуется внимательно для выполнения следующих фаз.

## 2 Примечания по авторскому праву и торговым маркам

Упомянутые название компаний и продукции являются торговыми марками или зарегистрированными торговыми марками, принадлежащими соответствующим компаниям.

Microsoft Internet Explorer®, Windows XP®, Windows Vista® являются собственностью Microsoft Corporation..

INTEL® Core™ 2 Duo, INTEL® Core™ 2 Quad, INTEL® Xeon® являются собственностью Intel Corporation.

## 3 Правила безопасности



**ПРЕДУПРЕЖДЕНИЕ!** Система электропитания, к которой подключен прибор, должен быть оснащена биполярный автоматический выключатель защиты макс. 20А. Этот выключатель выбирается из перечисленных в списке. Минимальное расстояние между контактами должно быть 3mm. Выключатель должен иметь защиту против пробоя тока на землю (дифференциальную) и сверхток (магнитотермический).



**ПРЕДУПРЕЖДЕНИЕ!** Опасные движущиеся компоненты. Не приближать пальцы или другие части тела.



**ПРЕДУПРЕЖДЕНИЕ!** Следует использовать только кронштейны или принадлежности, рекомендуемые для монтажа.



**ПРЕДУПРЕЖДЕНИЕ!** Установка типа TNV-1. Не подключайте к системам SELV.



**ПРЕДУПРЕЖДЕНИЕ!** Во избежание пожароопасности, заменяйте плавкие предохранители такими же, аналогичного типа и значения тока. Замена плавких предохранителей должна выполняться только квалифицированным персоналом.



**ПРЕДУПРЕЖДЕНИЕ!** Для снижения опасности пожара пользуйтесь исключительно кабелями, имеющими сертификат UL Listed или CSA, имеющими размеры не менее 0,13mm<sup>2</sup> (26AWG).

- Производитель снимает с себя какую-либо ответственность за возможный ущерб, вызванный использованием не по назначению упомянутого в данном руководстве оборудования. Также сохраняется право изменять содержание без предварительного извещения. При тщательном сборе документации, содержащейся в настоящем руководстве, были сделаны все необходимые проверки. Производитель, однако, не может взять на себя какую-либо ответственность, связанную с его использованием. Это относится к любому лицу или обществу, вовлеченному в создание и производство данного руководства.
- Перед началом любой операции, убедитесь, что электропитание отключено.
- Не использовать кабели со следами повреждений или старения.
- Ни в коем случае не вносить изменений и не выполнять подключений, не предусмотренных данным руководством. Использование оборудования не по назначению, может привести к серьёзным рискам и опасно, как для персонала, так и для системы.
- Используйте только оригинальные запасные части. Номера для оригинальных запасных частей может привести к пожару, электрический разряд или других опасностей.
- Перед монтажом проверить, что поставляемый материал соответствует требуемым техническим спецификациям, проверив этикетки маркировки (4.2 Маркировка изделия, страница 10).
- Это устройство предназначено для постоянно действующей установки на здании или на соответствующей конструкции. Устройство должно быть установлено на постоянной основе перед выполнением любой операции.
- Категория установки (называемая также категорией перенапряжения) указывает уровни скачков напряжения сети, которым подвержен прибор. Категория зависит от места установки и присутствия устройств защиты от перенапряжений. Устройство для промышленных условий, подключенное к основному ответвлению линии питания, относится к категории установки III. Если речь идет о данном случае, требуется уменьшение до категории II. Этого можно достичь с помощью разделительного трансформатора с заземленным экраном между первичной и вторичной обмоткой или с помощью устройств защиты от перенапряжений (SPD) с маркировкой UL, подключенных между фазой и нейтралью и между нейтралью и землей. Устройства SPD с маркировкой UL используются для повторяющегося подавления кратковременных перенапряжений и при следующих номинальных условиях функционирования: Тип 2 (Устройства SPD, постоянно подключенные к сети питания, для установки со стороны загрузки рабочего устройства); Номинальный ток разряда ( $I_n$ ) минимум 20кА Например, можно использовать: FERRAZ SHAWMUT, ST23401PG-CN, ST240SPG-CN, указанные для 120/240Vac, ( $I_n=20кА$ ). Максимальное расстояние между установкой и переходником составляет 5м.
- Для изделий с маркировкой UL, питающихся от источника 24Vac, используйте трансформатор из списка UL класса 2, соответствующий действующим нормативам.
- Размыкающее устройство, с быстрым и лёгким доступом, предназначенное для встраивания в электросистему здания и обеспечивающее быстрое срабатывание.
- Вывод заземления, присутствующий в изделии, должен быть постоянно подключен к земле.

- Подключите устройство к источнику питания, который соответствует маркировке. Прежде чем приступить к установке, убедитесь, что линия электропередачи правильно секционирована. Напряжение питания не должно превышать предельных ( $\pm 10\%$ ).
- Можно транспортировать устройство только с максимальной аккуратностью. Резкие остановки, перепады уровней и сильные столкновения могут приводить к повреждениям устройства или травмированию пользователя.
- Для соответствия требованиям норматива по снижению и кратковременным прерываниям напряжения питания необходимо использовать соответствующий бесперебойный источник питания (UPS) для питания узла.
- Устройство устанавливается так, чтобы доступ к нему мог иметь только технический персонал или монтажник, поскольку из-за наличия подвижных частей существует опасность травмирования в результате движения этих подвижных компонентов.
- Наклейте этикетку Опасные Подвижные Компоненты рядом с устройством (Рис. 2, страница 11).
- Не используйте прибор в присутствии воспламеняющихся веществ.
- Не разрешайте пользоваться прибором детям или посторонним лицам.
- Прибор считается отключенным только тогда, когда когда питание отключено и соединительные кабели с другими устройствами убраны.
- Техобслуживание прибора должно выполняться только квалифицированным персоналом. Во время техобслуживания оператор подвержен риску поражения электрическим током и другим опасностям.
- Используйте только комплектующие, указанные изготовителем. Любое изменение, выполненное без разрешения изготовителя, ведёт к потере гарантии.
- Подключите к земле коаксиальный кабель.
- Перед подключением всех кабелей сигнала проверьте, чтобы узел был соответственно подключен к заземлению.
- Если устройство необходимо снять с установки, всегда в последнюю очередь отсоединяйте кабель заземления.
- Примите соответствующие меры для предупреждения повреждений аппаратуры электростатическими разрядами.
- Узел реализован для подключения посредством трехжильного кабеля. Для правильного подключения контура заземления придерживайтесь указаний, содержащихся в данном руководстве.
- Обращайтесь с прибором осторожно, сильные механические воздействия могут его повредить.
- Обратите особое внимание на изоляцию и расстояния между линией питания и всеми другими кабелями, в том числе устройствами защиты от молний.

## 4 Идентификация

### 4.1 Описание и назначение изделия

Телекамера PTZ ULISSE COMPACT THERMAL предлагает отличное дополнительное решение для эффективного наблюдения даже в условиях полной темноты или в экстремальных погодных условиях, таких как туман, дождь, дым, или на больших расстояниях.

Фактически, данное устройство включает в себя встроенные обычную телекамеру и тепловую телекамеру с независимым управлением двух потоков видео.

Телекамера Day/Night (День/Ночь) в состоянии четко определить объект съемки в условиях обычного освещения, в то время как функция теплового видения позволяет определить нахождение людей и поле событий в условиях полной темноты, дыма или густого тумана.

Применение данного решения особенно рекомендуется в критических условиях, в которых требуется непрерывное и надежное наблюдение в режиме non-stop над зоной снаружи помещений, а также безошибочная система обнаружения поля событий и присутствия людей, не требующая проведения технического обслуживания.

Аккуратная конструкция top-mount гарантирует загоризонтный обзор и непрерывное вращение вокруг горизонтальной оси, объединяет высокую скорость и абсолютную точность наводки как в ручном режиме, так и в дозорном функционировании.

### 4.2 Маркировка изделия



На поворотные устройства наклеены этикетки, соответствующие маркировке ЕС.

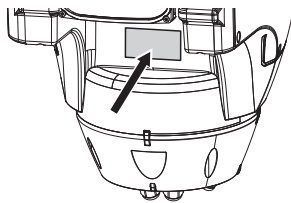


Рис. 1

На этикетке указаны:

- Идентификационный код модели (Расширенный штрих-код 3/9).
- Питание (Volt).
- Частота (Hertz).
- Потребление тока (Ампер).
- Степень защиты (IP).
- Серийный номер.

#### 4.2.1 Контроль маркировки

До начала установки проверьте, изучив для этого маркировочные этикетки, чтобы поставленный материал соответствовал специальным требованиям.

Ни в коем случае не вносить изменений и не выполнять подключений, не предусмотренных данным руководством. Использование оборудования не по назначению, может привести к серьезным рискам и опасно, как для персонала, так и для системы.



## 5 Подготовка изделия к использованию



Любое изменение, выполненное без разрешения изготовителя, ведёт к потере гарантии.

### 5.1 Меры безопасности перед использованием



Оборудование включает в себя подвижные компоненты. Проверить, чтобы блок был установлен в зоне, недоступной во время нормальной работы оборудования. Поместить специальную табличку, поставляемую вместе с оборудованием, на хорошо видимом месте в непосредственной близости к нему.



Рис. 2

### 5.2 Распаковка

При поставке изделия убедитесь в том, что упаковка не повреждена и не имеет явных признаков падений или царапин.

В случае видимых повреждений упаковки немедленно свяжитесь с поставщиком.

Храните упаковку на случай, если необходимо отправка изделия для ремонта.

### 5.3 Содержимое

Убедитесь в том, что содержимое будет соответствовать списку материалов, приведённому ниже:

- Устройство позиционирования
- Коробка аксессуаров
- Последовательный кабель-удлинитель
- Этикетка
- Силиконовая оболочка
- Хомутики
- Учебник инструкции

### 5.4 Переработка в отходы в условиях безопасности материалов упаковки

Материалы упаковки полностью состоят из рекуперированного материала. Техник по установке должен переработать их в отходы в соответствии с порядком дифференцированного сбора или, в любом случае, в соответствии действующими правилами в стране использования.

В случае возврата некачественной продукции, рекомендуем использовать первоначальную оригинальную упаковку для транспортировки.

## 5.5 Подготовительная работа перед установкой

### 5.5.1 Установка кронштейна

В наличии разные типы кронштейнов (9 Аксессуары, страница 48). Выберите наиболее подходящий для монтажа и следуйте всем указаниям, приведенным в данном разделе.

**!** Обратите особое внимание на системы крепления аппаратуры. Если аппаратура должна крепиться к бетонной поверхности, необходимо использовать дюбели с минимальным номинальным моментом вытяжения по 300dN каждый. Если поверхность металлическая, используйте винты с минимальным диаметром 8 мм и соответствующей длины. Система креплений должна выдерживать вес, не менее чем 4-кратно превышающий вес самой аппаратуры, в том числе поворотного устройства, объектива и телекамеры.

**!** Устройство должно устанавливаться в вертикальном положении. Каждое альтернативное расположение может ухудшить характеристики аппаратуры.

### 5.5.2 Прохождение кабелей

**!** Соединительные кабели не должны быть доступными извне. Во избежание случайного выскальзывания из-за избыточного веса кабели должны быть как следует прикреплены к подложке.

**!** Используемые кабели должны соответствовать типу установки.

Уложите кабели внутри кронштейна так, чтобы они выходили наружу примерно на 50см.

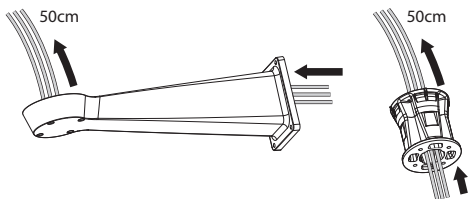


Рис. 3

## 6 Монтаж

**!** Ни в коем случае не вносить изменений и не выполнять подключений, не предусмотренных данным руководством. Несоблюдение инструкций, предоставленных в руководстве и касающихся соединений, может привести к созданию серьезных опасных ситуаций для персонала и установки.

**!** Не заменять уже имеющуюся на оборудовании кабелепроводку. Несоблюдение данной инструкции может привести к созданию серьезных опасных ситуаций для персонала и установки, а также к аннулированию гарантии.

**i** Сохранить схему соединений для возможного последующего обращения.

### 6.1 Подключение к кабелям основания

Уложите кабели в кабельные муфты и, удерживая основание на расстоянии около 20см от кронштейна. Затяните кабеледержатели. Кабельные муфты подходят к кабелям, имеющим диаметр от 5мм до 10мм.

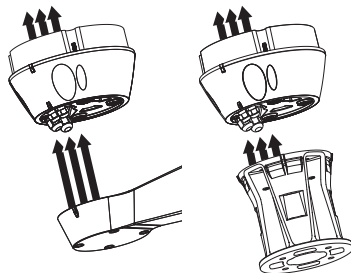


Рис. 4

## 6.2 Прикрепление основания к кронштейну

**!** Используйте винты и шайбы, поставляемые с основанием.

После установки уплотнителя (01) прикрепите основание (02) кронштейна (03), используя винты (04), зубчатые шайбы и плоские шайбы (05). Вставьте герметизирующие винты OR (06)

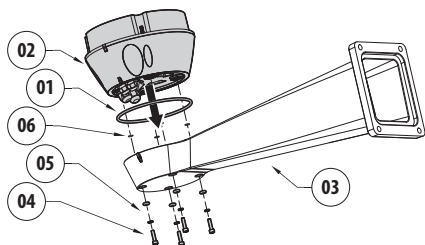


Рис. 5

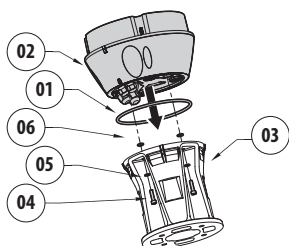


Рис. 6

Выровняйте 3 отметки на основании с отметками, присутствующими на кронштейнах, как показано на следующем рисунке.

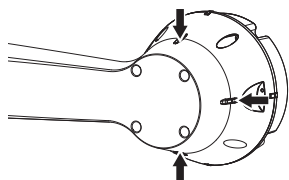


Рис. 7

**!** Применить резьбового фиксатора отверстия винтов (Loctite 243°).

**!** Будьте осторожны при установке. Момент затяжки: 4Нм.

## 6.3 Подключение платы разъемов

### 6.3.1 Описание платы разъемов

ОПИСАНИЕ ПЛАТЫ	
Разъём	Функция
J2	Линии питания
J5/J7	Выход видео
J10	Линии телеметрирования

Таб. 1

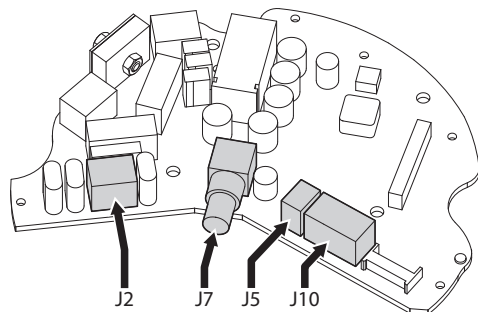


Рис. 8

### 6.3.2 Подключение к линии питания

**⚠** Выполнять электрические подключения при отсутствии питания и с открытым разъединяющим устройством.

**⚠** В момент монтажа убедитесь в том, что характеристики подаваемого питания соответствуют характеристикам, требуемым устройством.

**⚠** Провод заземления должен быть длиннее двух других примерно на 10mm, с целью предотвращения случайного отсоединения по причине растяжения кабеля.

**⚠** Проверить, что источники питания и соединительные кабели в состоянии обеспечить необходимое энергопотребление системы.

**⚠** Кабель питания должен быть покрыт силиконовой оболочкой (01), имеющейся в комплекте. Силиконовая оболочка крепится с помощью зажима (02).

В зависимости от версии, на устройство может подаваться различное напряжение питания. Их значение приведено на идентификационной этикетке изделия (4.2 Маркировка изделия, страница 10).

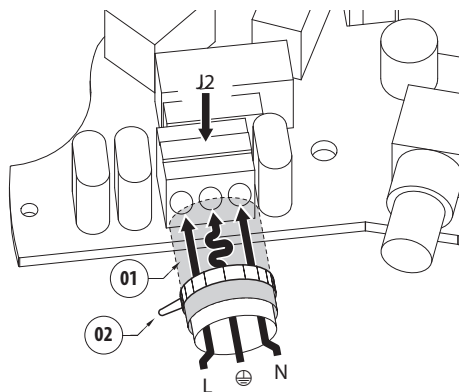


Рис. 9

Подключите кабели питания к клемме J2, как описано в таблице.

ПОДКЛЮЧЕНИЕ К ЛИНИИ ПИТАНИЯ	
Цвет	Клеммы
<b>Источник питания 24Vac</b>	
Определяется установщиком	N (Нейтраль)
Определяется установщиком	L (Фаза)
Желтый/Зеленый	GND
<b>Источник питания 230Vac</b>	
Синий	N (Нейтраль)
Коричневый	L (Фаза)
Желтый/Зеленый	GND
<b>Источник питания 120Vac</b>	
Синий	N (Нейтраль)
Коричневый	L (Фаза)
Желтый/Зеленый	GND

Таб. 2

**⚠** Для изделий с маркировкой UL, питающихся от источника 24Vac, используйте трансформатор из списка UL класса 2, соответствующий действующим нормативам.

**⚠** Для подключения линии питания используйте специальную соединительную коробку (UP TJBUL). Для получения дополнительной информации смотрите руководство по эксплуатации и установки изделия.

## 6.4 Подключение вспомогательной платы разъемов

**!** Все сигнальные кабели должны быть сгруппированы под одним хомутиком.

### 6.4.1 Описание вспомогательной платы

ОПИСАНИЕ ПЛАТЫ	
Разъём	Функция
CN1/CN2	Реле и сигнализации
CN3	Второстепенного видеовыхода
CN4	Контроля тепловой камеры
DS1	Выбирает тип формата видео/Вывод последовательной линии

Таб. 3

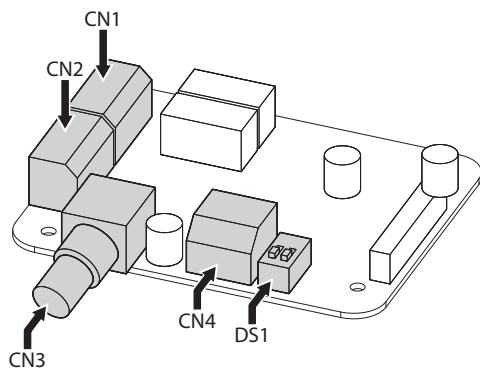


Рис. 10 Плата сигналов тревоги и реле.

### 6.4.2 Подключение входов сигналов тревог

В случае сигнала тревоги на свободном контакте выполните подключение, как показано на рисунке

Контакты сигналов тревоги присутствуют на разъёме (CN1-CN2).

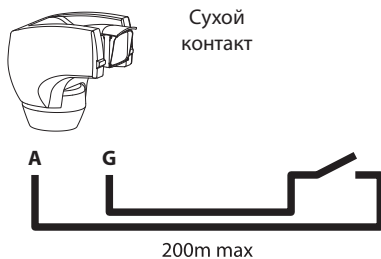


Рис. 11

Чистый контакт тревоги может быть типа Н.О. (обычно открытый) или Н.З. (обычно закрытый).

Все сигналы тревоги имеют дальность около 200м, обеспечиваемую с помощью не экранированного кабеля с минимальным сечением 0,25mm<sup>2</sup> (24 AWG).

### 6.4.3 Подключения реле

**!** Реле используются только для низкого рабочего напряжения (до 30Vac или 60Vdc) при максимальной силе тока 1А. Использовать кабели с подходящей сечением для проверяемой нагрузки, от минимального 0.25mm<sup>2</sup> (24 AWG) и до максимальной 1.5mm<sup>2</sup> (16 AWG).

Клеммы реле размещены в родственник разъеме: Реле и сигнализации (6.4.1 Описание вспомогательной платы, страница 15).

Реле не имеют полярности, поэтому не имеет значения использовать ли клемму А или В одного и того же реле, для переменного или постоянного тока.

ПОДКЛЮЧЕНИЯ РЕЛЕ	
Клемма	Описание
R1A	Реле 1, Клемма А
R1B	Реле 1, Клемма Б
R2A	Реле 2, Клемма А
R2B	Реле 2, Клемма Б

Таб. 4

**i** За дополнительной информацией обратитесь к соответствующей главе (8.1.12.1 Меню тревог, страница 40).

## 6.5 Подключение одного или нескольких видеокабелей



Установка типа кабельного телевидения CDS (Cable Distribution System). Не подключайте к системам SELV.

### 6.5.1 Подключение основного видео

Видеосигнал присутствует на разъемах J5 и J7 платы. Всегда используйте только один разъем.

**Разъём J5:** Подключите соответственно экран и центральный кабель к клеммам GND и CVBS.

**Разъём J7:** Подключите коаксиальный кабель к разъему BNC (не входит в поставку), затем подключите его к разъему J7.

Клетки подходят к кабелям, имеющим сечение от 1,5мм<sup>2</sup> (16 AWG) до 0,5мм<sup>2</sup> (30 AWG).

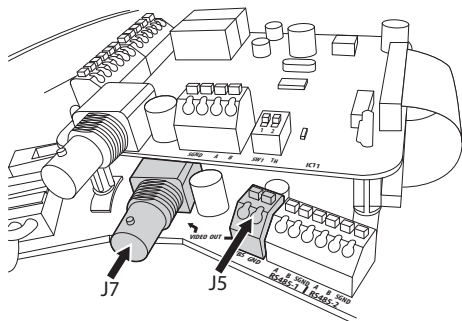


Рис. 12

### 6.5.2 Подключение второстепенного видео

Подключите коаксиальный кабель к разъему BNC (не входит в поставку), затем подключите его к разъему CN3.

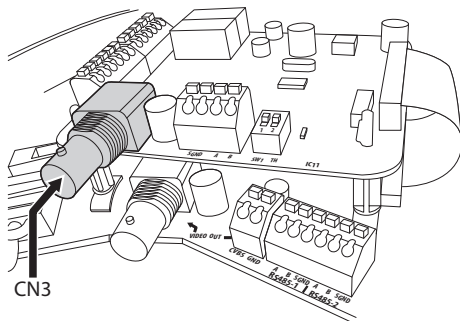


Рис. 13

### 6.5.3 Выход видеосигналов (в версии с двойной телекамерой)

Описание видеовыходов:

- **Основное видео:** Данный выход используется для передачи видеосигнала встроенного модуля (разъемы J5, J7).
- **Второстепенное видео:** Данный выход используется для передачи видеосигнала термического модуля (разъём CN3)

### 6.5.4 Выход видеосигнала (в версиях только с тепловой телекамерой)

Описание видеовыходов:

- **Основное видео:** Во всех моделях только с тепловой телекамерой основной видеовыход используется для передачи видеосигнала тепловой телекамеры. (разъемы J5, J7).
- **Второстепенное видео:** Второстепенный видеосигнал не используется. (разъём CN3)

## 6.6 Подключение линии прямого управления тепловой телекамерой RS-485-3 (только в версиях с двойной телекамерой)

Тепловизионная камера может управляться извне через последовательную линию (CN4, 8.1.16 Меню тепловая камера, страница 42).

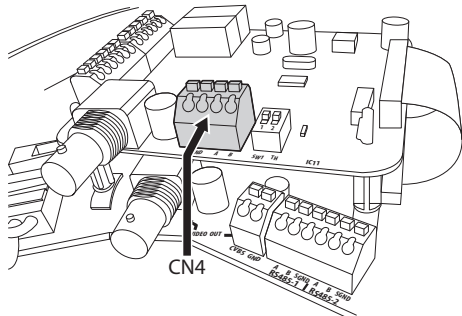


Рис. 14

## 6.7 Настройка формата видео DS1 (только в версиях с тепловой телекамерой)

Dip-переключатель 1 выбирает тип формата видео на выходе.

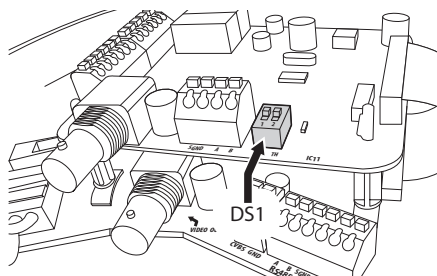


Рис. 15

КОНФИГУРАЦИЯ ВИДЕО И ТЕЛЕМЕТРИИ (DS1)			
Описание	SW1	SW2	Конфигурация
Формат видео-сигнала	On	-	PAL формат видео
	Off	-	NTSC формат видео

Таб. 5

## 6.8 Вывод последовательной линии RS-485-3 (DS1)

Dip-переключатель 2 подключает вывод (120 Ом) последовательной линии.

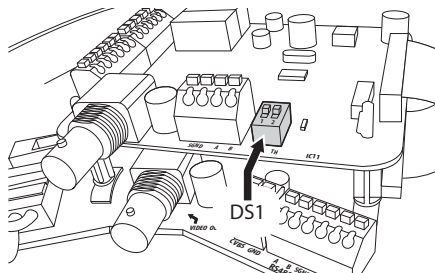


Рис. 16

КОНФИГУРАЦИЯ ВИДЕО И ТЕЛЕМЕТРИИ (DS1)			
Описание	SW1	SW2	Конфигурация
Вывод последовательной линии	-	On	Вывод RS-485-3 подключен
	-	Off	Вывод RS-485-3 отключён

Таб. 6

## 6.9 Подключение мощного оборудования

**i** Для дополнительной информации по конфигурации и использованию обращаться к руководству по эксплуатации соответствующего оборудования.

**i** Когда происходит активация мощней установки, реле 2 используется только для активации насоса (8.1.13 Меню установки мойки, страница 41).

## 6.10 Крепление верхнего корпуса

Направьте самоцентрирующийся разъем (01) верхнего узла. Направьте боковой выступ (02) в направлении переднего поля зрения телекамеры. Расположите верхний узел на основании, ориентируя как показано на рисунке.

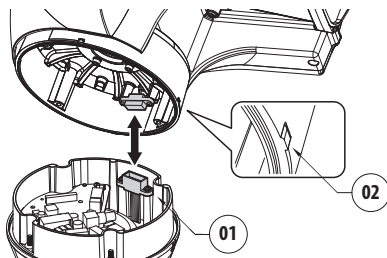


Рис. 17

В этом случае боковые выступы на основании и на верхнем узле выровнены в единственно возможном положении.

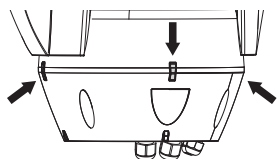


Рис. 18

Прикрепите верхний узел (01) к основанию (02) с помощью крепежных винтов (03), зубчатых шайб и плоских шайб (05). Проверить присутствие и хорошее состояние уплотнителя основания (06).

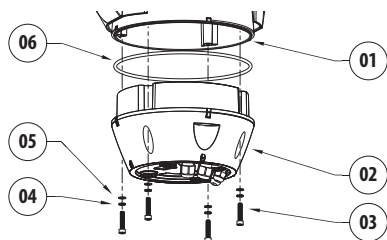


Рис. 19

**!** Введите в отверстия для винтов фиксатор резьбы типа Loctite 243°.

**!** Будьте осторожны при установке. Момент затяжки: 4Нм.

## 6.11 Конфигурация аппаратного обеспечения

### 6.11.1 Открытие конфигурационной дверцы

Перед подачей питания на устройство, необходимо правильно его конфигурировать с помощью dip-переключателей, установленных на конфигурационной дверце. Откройте дверцу, отвинтив винты, как показано на рисунке.

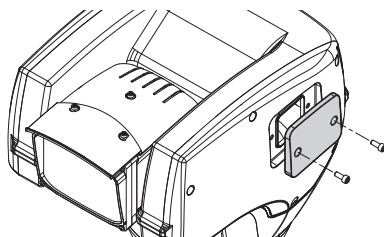


Рис. 20



### 6.11.2 Установка режима проверки настроек (DIP 1)

SW 1=ON: Отображает конфигурацию. Используется только для проверки конфигурации в конце настроек. Во время нормального использования убедитесь в том, что рычажок находится в положении OFF (SW 1=OFF).

### 6.11.3 Установка скорости двоичной передачи

Для установки двоичных передач сети необходимо пользоваться DIP 1.

Переключатели 4, 3 и 2 используются для установки скорости сообщения устройства.

УСТАНОВКА СКОРОСТИ ДВОИЧНОЙ ПЕРЕДАЧИ (DIP 1)						
Описание	SW 1	SW 2	SW 3	SW 4	SW 5-6-7-8	Конфигурация
Выбор скорости двоичной передачи	-	ON	ON	ON	-	38400 baud
	-	OFF	ON	ON	-	19200 baud
	-	ON	OFF	ON	-	9600 baud
	-	OFF	OFF	ON	-	4800 baud
	-	ON	ON	OFF	-	2400 baud
	-	OFF	ON	OFF	-	1200 baud
	-	ON	OFF	OFF	-	600 baud
	-	OFF	OFF	OFF	-	300 baud
Конфигурации изображения	ON	-	-	-	-	Подключено изображение
	OFF	-	-	-	-	Отключено изображение

Таб. 7

### 6.11.4 Конфигурация серийные линии связи

Для установки и определения серийных линий сообщений необходимо пользоваться DIP 1.

Продукт предоставляет следующие последовательные линии для связи:

- RS-485: Две линии для связи RS485

Конфигурация последовательных линий может выполняться с использованием одного из следующих dip-переключателей:

- DIP 1: SW 5-SW 6

КОНФИГУРАЦИЯ СЕРИЙНЫЕ ЛИНИИ СВЯЗИ (DIP 1)					
Описание	SW 1-2-3-4	SW 5	SW 6	SW 7-8	Конфигурация (смотреть соответствующие главы)
Серийные линии	-	ON	ON	-	Двунаправленная линия RS-485 TX/RX
	-	OFF	ON	-	Линия RS-485-1 приёма, линия RS-485-2 ретрансляции
	-	ON	OFF	-	Двунаправленная линия RS-422
	-	OFF	OFF	-	Однонаправленная линия RS-485

Таб. 8

### 6.11.4.1 Двухнаправленная линия RS-485 TX/RX

Этот установки позволяет получить двухнаправленное сообщение полудуплексной связи (half-duplex) на линии RS-485-1.

Серийная линия RS-485-2 не используется.

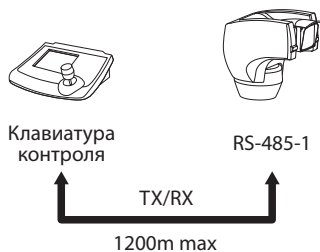


Рис. 21

### 6.11.4.2 Линия RS-485-1 приёма, линия RS-485-2 ретрансляции

Эта установка позволяет соединять несколько устройств каскадом. Сигнал создаётся каждым устройством, позволяя значительно увеличивать общее расстояние.

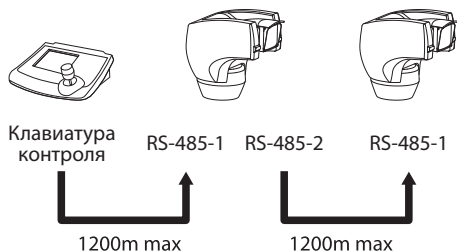


Рис. 22

**i** Эта конфигурация используется только для однонаправленных протоколов.

**i** В этой конфигурации невозможно произвести обновление удалённого аппаратно-программного обеспечения.

### 6.11.4.3 Двухнаправленная линия RS-422

Эта установка позволяет сообщение в дуплексной связи (full duplex) в соответствии со стандартом RS-422.

Линия RS-485-1 всегда в режиме приёма (RS-422-RX).

Линия RS-485-2 всегда в режиме передачи (RS-422-TX).

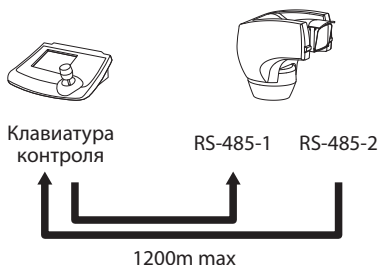


Рис. 23

### 6.11.4.4 Однонаправленная линия RS-485

Первая линия (RS485-1) работает в соответствии с настройками с двухрядными переключателями адреса, Vaudrate (скорость передачи данных) протоколом.

Линия RS-485-2 не используется.

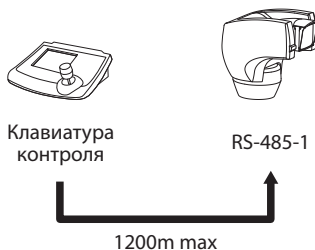


Рис. 24

**i** Эта конфигурация используется только для однонаправленных протоколов.

**i** В этой конфигурации невозможно произвести обновление удалённого аппаратно-программного обеспечения.

## 6.11.5 Вывод последовательных линий

Для установки и определения серийных линий необходимо пользоваться DIP 1.

В плате имеются два двухрядных переключателя, использованные для конфигурации терминала (120 Ом) серийной линии (Таб. 9, страница 21).

Каждое периферийное устройство, которое находится в конце линии, должно использоваться со специальным двухрядным переключателем во избежание создания отражений и деформаций сигнала.

Вывод последовательных линий (DIP 1)				
Описание	SW 1-2-3-4-5-6	SW 7	SW 8	Конфигурация
Вывод последовательных линий	-	-	ON	Линия RS-485-2, вывод подключён
	-	-	OFF	Линия RS-485-2, вывод отключён
	-	ON	-	Линия RS-485-1, вывод подключён
	-	OFF	-	Линия RS-485-1, вывод отключён

Таб. 9

## 6.11.6 Установка протокола



В случае версий с цифровым видеоэнкодером необходимо установить протокол на NETWORK.

Для установки протокола необходимо пользоваться DIP 3.

Наводку можно контролировать через различные протоколы.

УСТАНОВКА ПРОТОКОЛА (DIP 3)				
SW 1	SW 2	SW 3	SW 4	Конфигурация
OFF	ON	OFF	OFF	AMERICAN DYNAMICS
OFF	OFF	ON	OFF	ERNITEC
OFF	ON	ON	OFF	NETWORK
ON	OFF	ON	OFF	PANASONIC
ON	OFF	OFF	OFF	PELCO D
OFF	OFF	OFF	OFF	VIDEOTEC MACRO

Таб. 10

## 6.11.7 Установка адреса

Установка адреса выполняется с помощью DIP 2.

Можно присвоить адрес поворотному устройству: от 1 а 1023. Выбор адреса происходит в зависимости от двоичного кода, с помощью dip-выключателя. (А Приложение - Таблица адресов, страница 65).

## 7 Включение

**i** Процедура автоматического предварительного подогрева (De-Ice) может быть активирована всегда, когда устройство включается при температуре окружающей среды ниже 0°C. Процедура служит для обеспечения правильного функционирования прибора даже при низких температурах. Долгота меняется от 60 до 120 минут в соответствии с условиями.

Чтобы включить прибор, подключить электропитание.

Чтобы выключить прибор, следует его обесточить.

### 7.1 Первое включение

**⚡** Проверить, что прибор, и другие компоненты установки закрыты таким образом, чтобы предотвратить контакт с компонентами под напряжением.

**!** Проверьте, чтобы все компоненты были закреплены хорошо и надежно.

При первом включении всегда целесообразно проверить правильность конфигурации устройства.

Для этого необходимо отключить питание, снять защитную дверцу dip-переключателя и перевести рычажок dip-переключателя "Изобразить Конфигурацию" (DIP1, SW1) в положение ON.

Подайте питание на устройство. Через несколько секунд можно будет проверить на экране заданную конфигурацию..

По завершении проверки выключите устройство и снова опустите рычажок dip-переключателя опции Отображение Конфигурации (Visualizza Configurazione) (DIP1, SW1).

Закройте дверцу и снова подайте питание на устройство.

## 7.2 Список проверок

**!** Если одна из проверок не проходит тест (ERR), свяжитесь с центром технической поддержки. Надпись "--" означает, что описанная опция в поворотном устройстве отсутствует.

**i** Содержание настоящей главы не применяется к версиям с цифровым видеоэнкодером.

В фазу включения устройство отображает список проверок, которые должны выполняться перед переходом к нормальному функционированию.

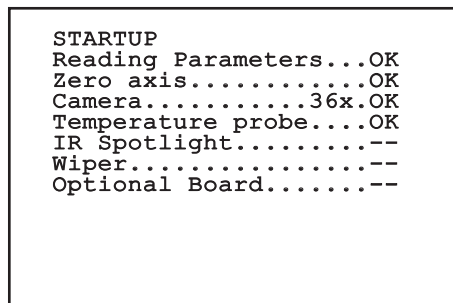


Рис. 25

## 8 Конфигурация

Конфигурация прибора может выполняться с использованием одного из следующих инструментов:

- Интерфейс OSM (On Screen Menu (Меню н экране)): Конфигурация с помощью текста на аналоговом видеосигнале
- Интерфейс программного обеспечения: Конфигурация с помощью прикладной программы, установленной на ПК.
- Интерфейс веб: Конфигурация с помощью браузера.

### 8.1 Интерфейс OSM (On Screen Menu (Меню н экране))

#### 8.1.1 С помощью OSM

Во время нормальной работы блока можно подключить OSM для выбора и конфигурации продвинутых функций. Во вопросам получения дополнительной информации обращайтесь к руководству по эксплуатации используемой клавиатуры и к соответствующей главе (10.13 Специальные команды, страница 52).

Выйти из OSM с помощью Zoom Wide (Zoom-).

**i** Меню конфигурируется автоматически и динамически в зависимости от модели поворотного устройства.

#### 8.1.1.1 Как пользоваться джойстиком

Все операции меню выполняются с использованием джойстика.

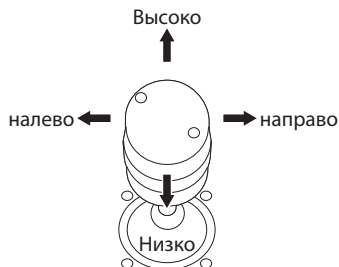


Рис. 26 Панорамирование и вертикальное перемещение.

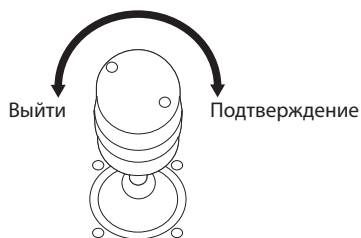


Рис. 27 Zoom Wide и Zoom Tele.

**i** В случае использования клавиатуры с джойстиком на двух осях, пользуйтесь кнопками Zoom Wide и Zoom Tele для отправки команд выхода и подтверждения.

### 8.1.2 Как двигаться по меню

Каждая рабочая область OSM представляет список параметров или подменю, которые могут быть выбраны оператором. Для пролистывания различных параметров переключайте курсор путем перемещения джойстика (вверх и вниз).

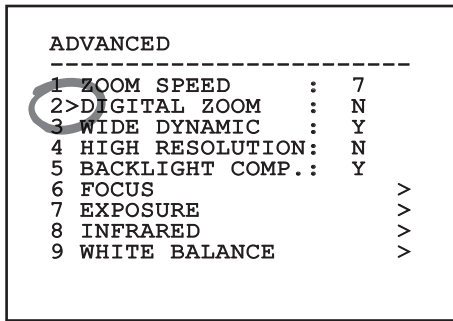


Рис. 28

Символ > в конце строки указывает на наличие специфического подменю. Для его активации достаточно подтвердить позицию меню. Для выхода из подменю используйте функцию Выйти (Zoom Wide).

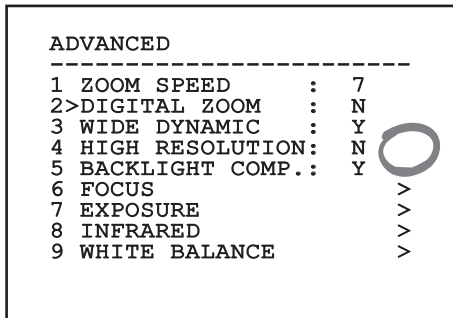


Рис. 29

### 8.1.3 Как изменить параметры

Сместите курсор в соответствии с параметром, который желаете изменить, и подтвердите. Поле начнёт мигать, указывая, что находится в режиме изменений. При нажатии на джойстик (вверх и вниз) будет показан возможный выбор.

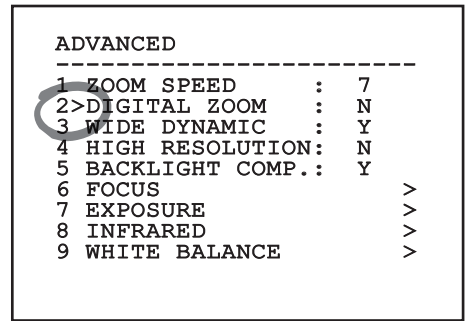


Рис. 30

После определения нужного выбора подтвердите.

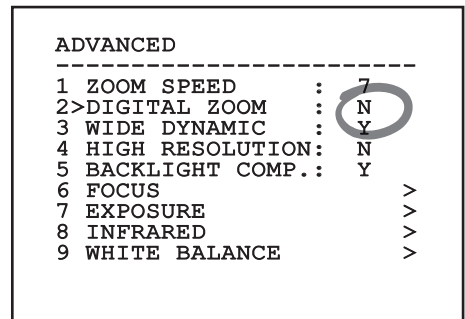


Рис. 31

Поле перестанет мигать в подтверждение выбранного.

## 8.1.4 Как изменить цифровые поля

Сместите курсор в соответствии с параметром, который желаете изменить, и подтвердите.

```
EDIT PRESET
-----
1 NR.      :      1
2 ON       :      N
3>PAN      :+   0.00
4 TILT     :+   0.00
5 ZOOM     :      0
6 FOCUS    :  4096
7 SPEED    : 100.0
8 PAUSE    :      1
9 TEXT     : Text 001
```

Рис. 32

Первая цифра изменяемого числового поля мигает и последняя строка экрана показывает допустимые пределы поля. Двигайтесь по полю (влево и направо) и замените знак или цифровое значение (высокое и низкое).

```
EDIT PRESET
-----
1 NR.      :      1
2 ON       :      N
3>PAN      :+000.00
4 TILT     :+   0.00
5 ZOOM     :      0
6 FOCUS    :  4096
7 SPEED    : 100.0
8 PAUSE    :      1
9 TEXT     : Text 001
min:-180.00 max:+179.99
```

Рис. 33

По подтверждению результата подтвердите. Курсор вернется в положение слева, а измененная цифра перестанет мигать. Поле будет форсировано на допустимые минимум или максимум, если выполнена попытка ввода непредусмотренного значения.

## 8.1.5 Как изменить тексты

Сместите курсор в соответствии с параметром, который желаете изменить, и подтвердите.

```
EDIT ZONE
-----
1 NR       :      1
2 START:+  :  0.00
3 STOP :+  :  0.00
4>TEXT     :TXT AREA1
```

Рис. 34

Появится рабочая область изменения текста. Символ стрелки находится под изменяемым символом, в то время как курсор > встает слева от выбранного символа.

```
EDIT TEXT: AREA
-----
Text: TEXT AREA1
          ↑
>A B C D E F G   ERASE
H I J K L M N   SAVE
O P Q R S T U   EXIT
V W X Y Z 0 1   abc
2 3 4 5 6 7 8
9 : ; , ? !
\ + - * / = `
< > SPACE ← →
```

Рис. 35

Можно перемещаться по меню при помощи джойстика.

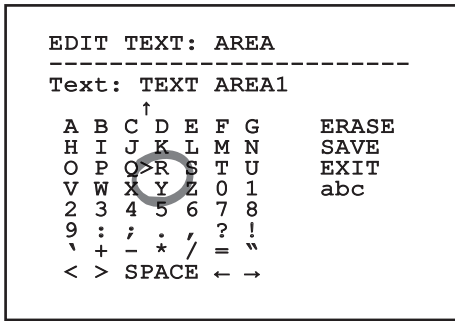


Рис. 36

Команда подтверждение (Зум теле) вводит желаемый символ.

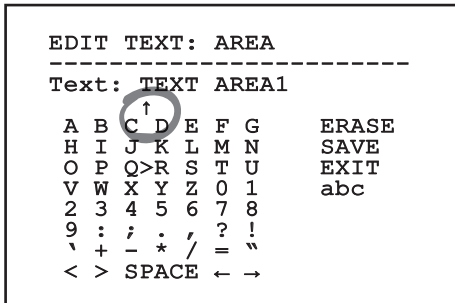


Рис. 37

Использовать:

- **ERASE:** Удаление целой строки текста.
- **SAVE:** Сохраните новый текст перед выходом из меню.
- **EXIT:** Выход из меню.
- **abc:** Выводит строчные буквы.

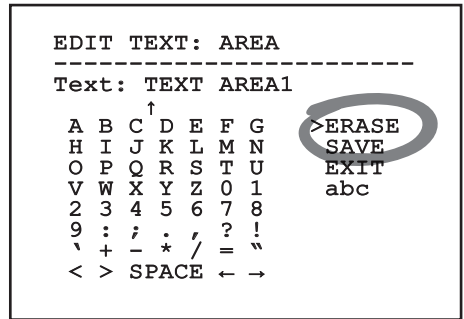


Рис. 38

Для выхода из меню можно пользоваться также командой Zoom Wide.



## 8.1.6 Конфигурации посредством OSM

Ниже будут показаны экранные изображения, необходимые для конфигурации изделия.

### 8.1.7 Главное меню

В главном меню можно получить доступ к конфигурации устройства.

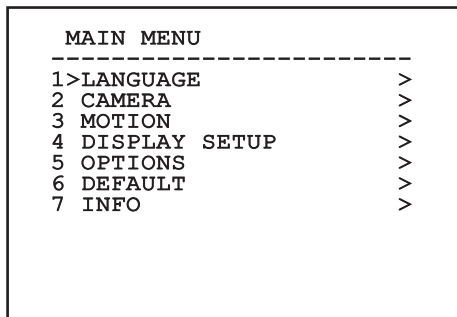


Рис. 39

### 8.1.8 Меню выбора языка

Меню позволяет выбрать нужный язык.

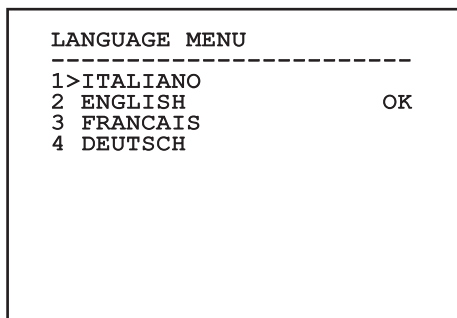


Рис. 40

## 8.1.9 Меню телекамеры

- Конфигурация:** Устанавливает конфигурации, предусмотренные для модуля SONY:
  - Standard:** Устанавливает стандартный режим работы телекамеры.
  - Low Light:** Устанавливает режим, предназначенный для помещений со слабым освещением.
  - Far Mode:** Устанавливает режим работы, предназначенный для зон больших размеров. Включает пропорциональный и цифровой зум.
  - Custom:** Указывает, что параметры телекамеры были выбраны вручную пользователем.
- Area Titling:** Позволяет вход в подменю для управления титрованием зон.
- Каширование:** Позволяет вход в подменю для управления динамическим кашированием.
- Дополнительные:** Позволяет вход в подменю для установки дополнительных параметров модуля SONY.

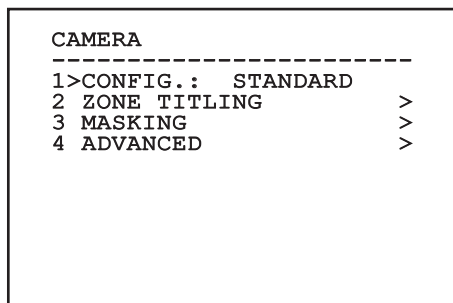


Рис. 41

### 8.1.9.1 Меню Титрования зон

Эта функция позволяет установить до восьми зон (различных размеров) с возможностью титрования.

- Включение:** Включает отображение на экране сообщения, связанного с достигнутой зоной.
- Изменяет Зону:** Позволяет вход в подменю для установки дополнительных параметров зон.

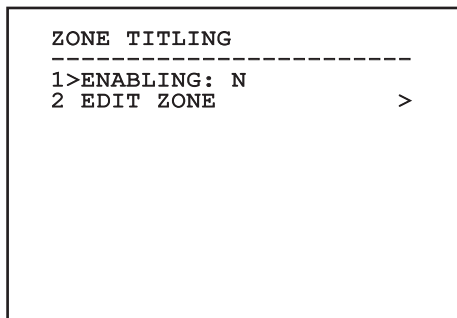


Рис. 42

### 8.1.9.2 Меню Титрования зон (Изменяет Зону)

После входа в меню можно установить следующие параметры:

- Число:** Выбирает зону для изменения.
- Start:** Устанавливает начальное положение зоны.
- Stop:** Устанавливает конечное положение зоны
- Текст:** Изменяет текст, который отображается при движении внутри зоны.

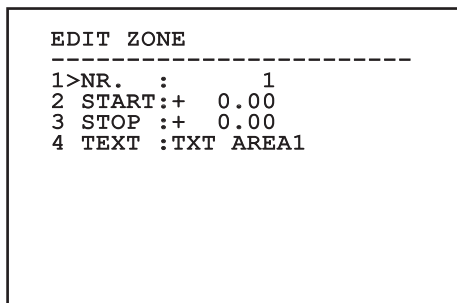


Рис. 43

**Пример:** Для активации титрование зоны 1, когда устройство находится между +15° и +45°, необходимо:

- Включает титрование зон, устанавливая S в качестве значения позиции Включение меню титрования зон.
- Установите 1, как значение параметра наш номер меню изменения зон.
- Установите +15,00, как значение параметра пуска с меню изменения зон.
- Установите +45,00, как значение параметра останова с меню изменения зон.
- При необходимости измените визуализированный текст, выбрав позицию Текст из меню Изменить зону.

**i** Устанавливая нуль как величину Пуска и Останова меню изменения зоны отключается визуализация надписи. В случае наложения нескольких зон имеет преимущество та, которая имеет больший номер.

**i** Для определения зон следуйте направлению по часовой стрелке как показано на рисунке.

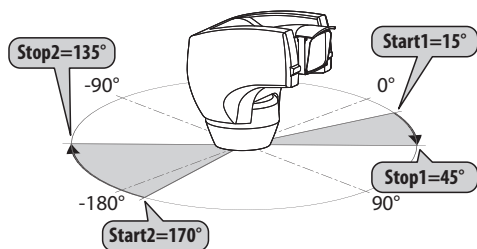


Рис. 44

**i** Имя и положение по умолчанию зон наводки ссылаются на четыре кардинальные точки. Положение СЕВЕР изменяется посредством параметра Offset Pan меню движения (8.1.10 Меню движения, страница 35).

### 8.1.9.3 Меню каширования

Динамическое каширование позволяет создавать максимум до 24 масок таким образом, чтобы получить потемнения определённых зон, выбранных пользователем.

Маски будут определяться в пространстве и будут учитывать горизонтальное, вертикальное положение, и глубину зума на момент установки.

Устройство предусматривает автоматическое сохранение положения и размера каширования, в зависимости от отображаемой зоны.

Можно отображать до максимум 8 масок одновременно.

Если используется устройство на максимальной скорости, темпы обновления сигнала видео становятся критическими и необходимо создать более крупные маски в отношении предмета, таким образом, чтобы скрыть его на более долгое время во время перехода и не рисковать увидеть его.

**i** Для обеспечения полной функциональности, положение в наклоне маски всегда должно быть от -70 до +70 градусов, кроме того, по отношению к объекту, необходимо, чтобы размер маски был вдвойне больше для его покрытия (по высоте и по ширине).

Позволяет настроить следующие параметры:

1. **Цвет Маски:** Позволяет выбирать цвет масок.
2. **Изменяет Маски:** Позволяет получать доступ к подменю Изменение масок и установка параметров динамического каширования.

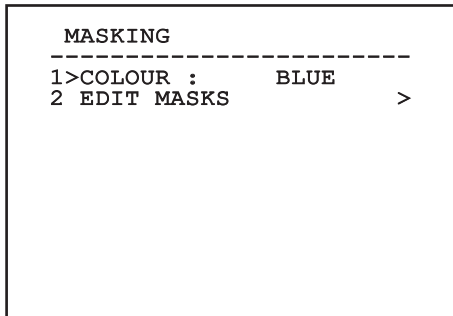


Рис. 45

### 8.1.9.4 Меню каширования (Изменяет Маски)

Позволяет настроить следующие параметры:

1. **Маска Номер:** Позволяет выбор маски для работы.
2. **Подготавливает маскирование:** Включает или выключает выбранную маску.
3. **Изменяет Маску:** Позволяет изменять или создавать маску.

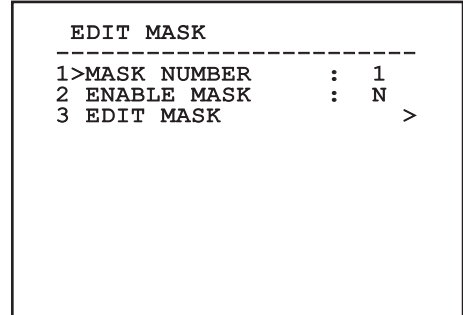


Рис. 46

Если выбирается опция из меню Изменить маску, включается возможность новых величин выбранной маски.

### 8.1.9.5 Как создать новую маску

Выбрать неактивную маску, выбрав из меню Изменения масок (Modifica Maschere) позицию маска номер (Maschera Numero). Для изменений выберите позицию Изменить маску (Рис. 46, страница 29).

На следующем примере рассмотрим каширование цветка.

- Нажмите на кнопку Iris Close для перехода из режима каширования в режим Передвижения камеры.

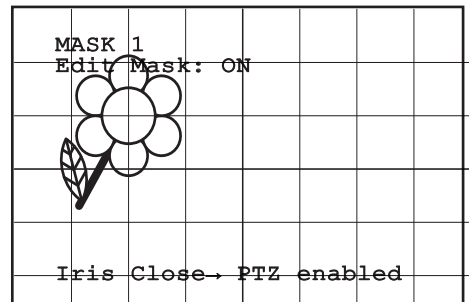


Рис. 47

- Нажатием на джойстик клавиатуры прибор передвинуть прибор и при необходимости установить зум до появления цветка в центре экрана.

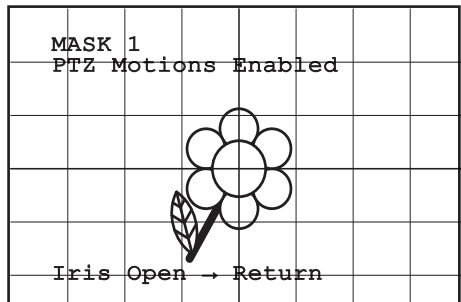


Рис. 48

- По достижении желаемого результата нажмите на кнопку Iris Open.

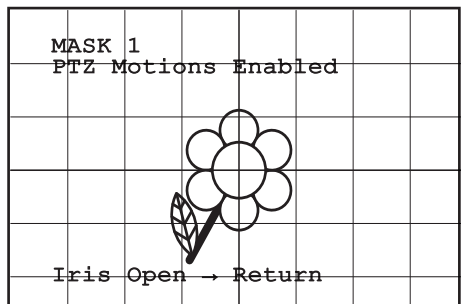


Рис. 49

- Появится небольшой прямоугольник. Нажав на джойстик (Pan и Tilt) увеличивается прямоугольник до тех пор, как не покроется весь цветок.

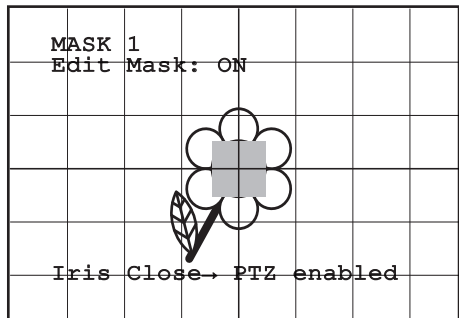


Рис. 50

- По достижении желаемого результата подтвердите вращением зума на теле.

### 8.1.9.6 Как изменить маску

Выбрать назначенную маску, выбрав из меню Изменения масок позицию маска номер (Рис. 46, страница 29). Для изменений выберите позицию изменить маску.

- Нажимая на джойстик (Pan и Tilt) увеличивается или уменьшается прямоугольник до достижения желаемого эффекта.

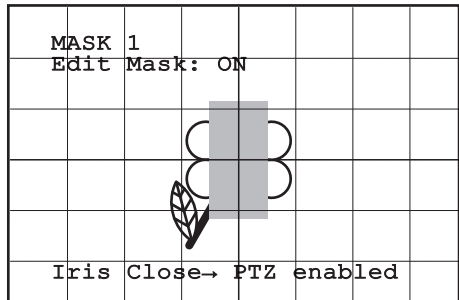


Рис. 51

- Подтверждает вращением зума на теле.

### 8.1.9.7 Меню дополнительных конфигураций

Получая доступ к этому меню, можно произвести конфигурацию модуля SONY.

1. **Zoom:** Позволяет получать доступ к подменю Зума.

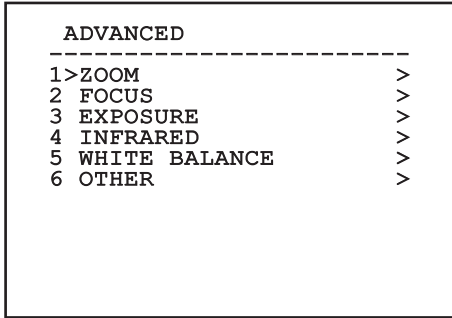


Рис. 52

### 8.1.9.8 Меню дополнительных конфигураций (Zoom)

1. **Скорость Зума:** Устанавливает скорость зума. Значения скорости - от 0 (минимальная скорость) до 7 (максимальная скорость).
2. **Цифровой Зум:** Включить цифровой зум.

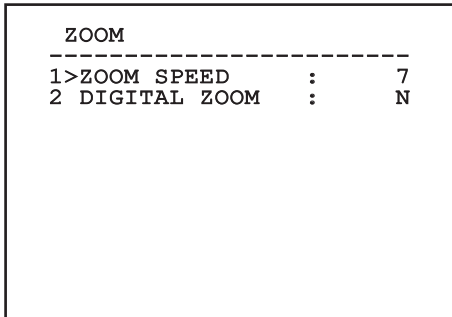


Рис. 53

### 8.1.9.9 Меню дополнительных конфигураций (Focus)

Позволяет настроить следующие параметры:

1. **Скорость Фокусировки:** Устанавливает скорость фокусировки. Значения скорости - от 0 (минимальная скорость) до 7 (максимальная скорость).
2. **Autofocus:** Включает или выключает автофокусировку. Если включена, позволяет автоматическую автофокусировку для каждого позиционирования или движения зума, в зависимости от выбранного режима работы.
3. **Вид Автофокусировки:** Устанавливает вид автофокусировки. Возможные значения:
  - **Нормальный:** Автофокусировка включена всегда.
  - **Интервал:** Вызов функции автофокусировки и интервалов. Вызов производится постоянно каждые 5 секунд.
  - **Trigger:** Вызов автофокусировки при каждом движении PTZ. Это рекомендуемое решение.
4. **Чувствительность:** Устанавливает вид чувствительности. Возможные значения:
  - **Нормальный:** Fokussierung mit höherer Geschwindigkeit. Это рекомендуемое решение.
  - **Низкая:** Замедленная фокусировка. Это полезно в случае слабого освещения помещения, поскольку делает изображение более стабильным.

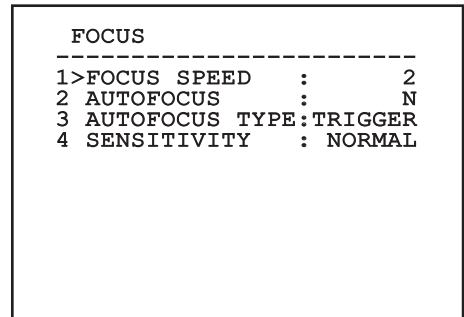


Рис. 54

### 8.1.9.10 Меню дополнительных конфигураций (Воздействие)

Позволяет настроить следующие параметры:

- 1-5. **Режим:** Устанавливает тип контроля выдерживания: автоматический, ручной, Shutter, Iris и Bright.
6. **Auto Slowshutter:** Если включена, увеличивает автоматически время выдерживания для улучшения ночной функции.
- 7-8. **Компенсация, Значение Компенсации:** Устанавливает компенсацию выдерживания.
9. **Компенсация Backlight:** Подготавливает функцию компенсации Backlight. Позволяет лучше видеть тёмные участки на изображении.

В автоматическом режиме можно включить также компенсацию Backlight.

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменять.

Режим управления выбранным выдерживанием связывается со всеми preset.

Установки рекомендуется производить в автоматическом режиме.

EXPOSURE	
1>MODE :	AUTOMATIC
6 AUTO SLOW SHUTTER :	Y
7 COMPENSATION :	N
8 COMPENSATION VALUE :	7
9 BACKLIGHT COMP. :	N

Рис. 55

В следующей таблице приводятся соответствия между введёнными величинами и оптическим действием модуля SONY.

ОПТИЧЕСКОЕ СООТВЕТСТВИЕ ЗНАЧЕНИЯ/ДЕЙСТВИЯ МОДУЛЯ SONY					
Значение	Shutter		Iris	Gain	Компенсация действия
	NTSC	PAL			
0	1/1	1/1	Закрыто	-3db	-10,5db
1	1/2	1/2	F28	0db	-9db
2	1/4	1/3	F22	2db	-7,5db
3	1/8	1/6	F19	4db	-6db
4	1/15	1/12	F16	6db	-4,5db
5	1/30	1/25	F14	8db	-3db
6	1/60	1/50	F11	10db	-1,5db
7	1/90	1/75	F9.6	12db	0db
8	1/100	1/100	F5	14db	1,5db
9	1/125	1/120	F6.8	16db	3db
10	1/180	1/150	F5.6	18db	4,5db
11	1/250	1/215	F4.8	20db	6db
12	1/350	1/300	F4	22db	7,5db
13	1/500	1/425	F3.4	24db	9db
14	1/725	1/600	F2.8	26db	10,5db
15	1/1000	1/1000	F2.4	28db	
16	1/1500	1/1250	F2		
17	1/2000	1/1750	F1.6		
18	1/3000	1/2500			
19	1/4000	1/3500			
20	1/6000	1/6000			
21	1/10000	1/10000			

Таб. 11

### 8.1.9.11 Меню дополнительных конфигураций (Инфракрасный)

Позволяет настроить следующие параметры:

1. **Режим IR:** Если выполнены настройки OFF, они форсируют дневной режим непрерывно (освещение фарой, если выполняется посредством специального обжатого переключателя или кнопкой на клавиатуре). Если выполнены настройки ON, они форсируют ночной режим непрерывно. Если выполнены настройки Auto, это активирует автоматическое переключение камеры.
2. **Ночной Порог:** Устанавливает порог выявления условий освещения для переключения в ночной режим. Меньшим величинам соответствуют более низкие уровни освещения.
3. **Задержка Ночью:** Устанавливает время выявления условий темноты, выраженное в секундах, перед переключением на ночной режим.
4. **Дневной порог:** Устанавливает порог выявления условий освещения для переключения в дневной режим. Меньшим величинам соответствуют более низкие уровни освещения.
5. **Задержка Днём:** Устанавливает время выявления условий освещения, выраженное в секундах, перед переключением на дневной режим.
6. **Фильтр с ограниченной полосой пропускания:** Если установлено на S, поворотное устройство работает нормально. Если установлено на N, камера не переключается на ночной и дневной режим, а функционирует только в дневном режиме. В случае установки на N осветитель, если имеется, включается и выключается в зависимости от установок позиции Режим IR (Modo IR).



Во избежание ошибочных сообщений рекомендуется выбирать величины порога и более серьезные ошибки дневных переключений.

INFRARED		
-----		
1	>IR MODE	: AUTO
2	NIGHT LEVEL	: 5
3	NIGHT DELAY	: 5
4	DAY LEVEL	: 20
5	DAY DELAY	: 30
6	CUT OFF FILTER:	Y

Рис. 56

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменить.



**Режим автоматического переключений день/ночь модуля строго не рекомендуется, поскольку наводка подвергается резким изменениям освещения в ночное время, например, при выполнении патрульных проходов или по причине включения вспомогательных устройств освещения. Такие ситуации могут вызвать много нежелательных переключений, ставящие под угрозу работу самого модуля.**

### 8.1.9.12 Меню дополнительных конфигураций (Баланс Белого Цвета)

Позволяет настроить следующие параметры:

1. **Режим:** Устанавливает тип контроля баланса белого цвета. Возможные значения:
  - **Автоматически:** автоматически устанавливает баланс белого цвета. Это рекомендуемое решение.
  - **Учебник:** Подготавливает ручную настройку усиления красного и синего.
  - **Outdoor:** Устанавливает фиксированные величины усиления красного и синего на открытом воздухе.
  - **Indoor:** Устанавливает фиксированные величины усиления красного и синего для помещений.
  - **ATW:** Подготовка автоматического определения баланса белого.
2. **Значение красного:** Устанавливает значение усиления красного.

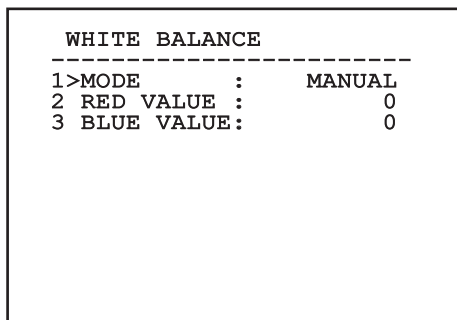


Рис. 57

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменять.

### 8.1.9.13 Меню дополнительных конфигураций (Другое)

1. **Резкость:** Устанавливает значение резкости изображения.
2. **Высокое разрешение:** Подготавливает высокое разрешение. Выходной сигнал видео имеет более высокое разрешение.
3. **Wide Dynamic:** Включает функцию Wide Dynamic. Улучшает просмотр, когда рассматриваемая зона освещается лучше других.
4. **Стабилизатор:** Включает функцию электронной стабилизации изображения.
5. **Прогрессивное Сканирование:** Включает функцию Прогрессивного сканирования. Позволяет достичь более стабильного изображения, когда наводка подключена к видео-серверу.
6. **Понижение Шума:** Устанавливает уровень снижения шума. При изменении параметра в зависимости от условий окружающей среды можно получить более контрастное изображение.

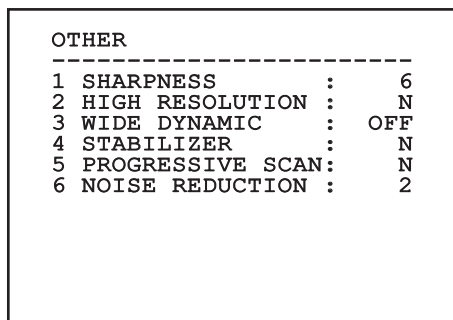


Рис. 58



## 8.1.10 Меню движения

- Конфигурация:** Устанавливает конфигурации, предусмотренные наводкой.
  - Standard:** Устанавливает стандартную скорость движений.
- Offset Pan:** Наводка имеет положение на 0°, определённое механически. Функция Offset Pan позволяет определить путём программного обеспечения положение, отличающееся от 0°.
- Ручной Контроль:** Получив доступ к подменю, которые управляют параметрами, связанными с ручными движениями устройства.
- Preset:** Позволяет получать доступ к подменю, позволяющим изменять величины Preset.
- Patrol:** Позволяет получать доступ к подменю, позволяющим изменять величины Patrol.
- Autopan:** Позволяет получать доступ к подменю, позволяющим изменять величины Autopan.
- Вызов Движений:** Позволяет получать доступ к подменю, управляющему автоматическим вызовом движений.
- Дополнительные:** Позволяет вход в подменю для установки дополнительных параметров.

### MOTION

```

-----
1>CONFIG.      : STANDARD
2 OFFSET PAN:  + 0.00
3 MANUAL CONTROL >
4 PRESET      >
5 PATROL     >
6 AUTOPAN    >
7 MOTIONS RECALL >
8 ADVANCED   >
  
```

Рис. 59

## 8.1.10.1 Меню ручного контроля

- Максимальная Скорость:** Устанавливает ручную максимальную скорость.
- Режим Fast:** Активирует режим Fast. Эта опция, если она включена, позволяет быстро перемещать наводку при помощи джойстика до ограничителя хода.
- Скорость С Зумом:** Включает опцию Скорость с зумом. Этот параметр, если он включён, автоматически снижает скорость Pan и Tilt в зависимости от коэффициента фокусного расстояния.
- Фактор Tilt:** Устанавливает фактор снижения ручной скорости оси tilt.
- Autoflip:** Включает функцию autoflip (то есть, автоматическую наводку с наклоном на 180°, когда угол наклона достигнет ограничителя хода) для облегчения отслеживания людей по коридорам или дорогам.
- Ограничения Движения:** Доступ к меню ограничений.

### MANUAL CONTROL

```

-----
1>MAXIMUM SPEED :100.0
2 FAST MODE    : Y
3 VEL. WITH ZOOM : N
4 TILT SCALE FACT.: 2
5 AUTOFLIP     : Y
6 MOVEMENT LIMITS >
  
```

Рис. 60

### 8.1.10.2 Меню ручного контроля (Рамки)

Позволяет настроить следующие параметры:

1. **Ограничения Pan:** Подготавливает ограничения Pan.
2. **Начало Pan:** Устанавливает начальное ограничение Pan.
3. **Окончание Pan:** Устанавливает конечное ограничение Pan.
4. **Ограничения Tilt:** Подготавливает ограничения Tilt.
5. **Начало Tilt:** Устанавливает начальное ограничение Tilt.
6. **Окончание Tilt:** Устанавливает конечное ограничение Tilt.

```

LIMITS
-----
1>PAN LIMITS      :      N
2 PAN START      : +  0.00
3 PAN END        : +  0.00
4 TILT LIMITD    :      N
5 TILT START     : +  0.00
6 TILT END       : +  0.00
    
```

Рис. 61

### 8.1.10.3 Меню Preset

1. **Изменяет Preset:** Для доступа к меню Изменения Preset.
2. **Служебная Программа Preset:** Для доступа к меню Функции Preset.

```

PRESET
-----
1>EDIT PRESET      >
2 PRESET UTILITIES >
    
```

Рис. 62

### 8.1.10.4 Меню Preset (Изменяет Preset)

Позволяет настроить следующие параметры:

1. **Число:** Номер Preset, который желаете изменить.
2. **Включение:** Включение preset.
3. **Pan:** Положение pan, выраженное в градусах.
4. **Tilt:** Положение tilt, выраженное в градусах.
5. **Zoom:** Положение зума.
6. **Focus:** Положение дневной и ночной фокусировки.
7. **Скорость:** Скорость достижения положения, когда preset вызывается функцией патрулирования (Patrol) и сканирования (Scan).
8. **Пауза:** Устанавливает ожидание в секундах перед началом следующего движения в патрулировании (Patrol).
9. **Текст:** Надпись отображается при достижении положения preset.

```

EDIT PRESET
-----
1>NR.   :      1
2 ON    :      N
3 PAN   :+  0.00
4 TILT  :+  0.00
5 ZOOM  :      0
6 FOCUS:  4096 - 5600
7 SPEED:  100.0
8 PAUSE:      1
9 TEXT  : Text 001
    
```

Рис. 63

С меню можно сохранить непосредственно preset, отправив команду Iris Close, включающую движения наводки.

### 8.1.10.5 Меню Preset (Службная Программа Preset)

Позволяет настроить следующие параметры:

- А.Дневная фокусировка:** Позволяет использовать автофокусировку во время вызова preset в дневном режиме. Для обеспечения скорости и точности в фокусировке изображения отключите автофокусировку.
- А.Ночная фокусировка:** Позволяет использовать автофокусировку во время вызова preset в ночном режиме. Рекомендуем включать автофокусировку, когда наводка оснащена инфракрасным прожектором, поскольку фокальная точка изменяется от видимого света до инфракрасного излучения.
- Скорость Сканирования:** Скорость будет использована как ссылка при вызове нового положения preset с функцией сканирования (Scan).
- Скорость По Умолчанию:** Изменяет скорость по умолчанию Preset. Эта величина используется функцией Установить скорость? для определения всех Preset той же скорости.
- Пауза По Умолчанию:** Изменяет паузу по умолчанию Preset. Эта величина используется функцией Установить паузу? для определения всех Preset той же паузы.
- Установить Скорость:** Назначает всем Preset скорость по умолчанию.
- Установить Паузу:** Назначает всем Preset паузу по умолчанию.

```

PRESET UTILITIES
-----
1>AUTOFOCUS DAY      :      N
2 AUTOFOCUS NIGHT   :      Y
3 SCAN SPEED        : 200.0
4 DEFAULT SPEED     : 100.0
5 DEFAULT DWELL     :      3
6 SET SPEED?
7 SET PAUSE?
    
```

Рис. 64

### 8.1.10.6 Меню патрулирования (Patrol)

- Первый Preset:** Первый preset последовательности Patrol.
- Последний Preset:** Последний preset последовательности Patrol.
- Режим Random:** Подготавливает выполнение случайным образом. Последовательность пересчитывается непрерывно.

```

PATROL
-----
1>FIRST PRESET      :      1
2 LAST PRESET      : 250
3 RANDOM MODE      :      N
    
```

Рис. 65

### 8.1.10.7 Меню Autoran (автопанорамирование)

- Preset Хода:** Устанавливает начальное положение Autoran (автопанорамирования).
- Preset Возврата:** Устанавливает конечное положение Autoran (автопанорамирования).
- Скорость Хода:** Устанавливает величину хода Autoran (автопанорамирования).
- Скорость Возврата:** Устанавливает величину возвращения Autoran (автопанорамирования).

```

AUTO-PAN
-----
1>PRESET OUTWARD    :      1
2 PRESET RETURN     :      2
3 OUTWARD SPEED     : 20.0
4 RETURN SPEED      :100.0
    
```

Рис. 66

### 8.1.10.8 Меню вызова движений

Можно настроить узел таким образом, что после определенного периода простоя автоматически выполняется функция движения, установленная оператором.

1. **Вид Движения:** Типа движения для вызова (None, Home, Autopan, Patrol, Tour 1, Tour 2, Tour 3).
2. **Задержка Движения:** Время простоя джойстика, указывается в секундах.

```

MOTION RECALL
-----
1>MOVEMENT TYPE :   NONE
2 MOVEMENT DELAY :    60
  
```

Рис. 67

### 8.1.10.9 Дополнительные меню

1. **Статический контроль:** Подготавливает контроль положения только тогда, когда наводка остановлена.
2. **Динамический контроль:** Подготавливает контроль положения только тогда, когда наводка в движении.
3. **Циклический возврат в исходное положение:** Если отличается от нуля, устанавливает выполнение процедуры возврата в исходное положение (homing) после определённого количества часов.
4. **Режим экономии:** Понижает момент двигателей, когда наводка остановлена. Не включайте в присутствии сильного ветра или интенсивные колебания.

```

ADVANCED
-----
1>STATIC CONTROL      :   Y
2 DYNAMIC CONTROL    :   Y
3 CYCLIC HOMING      :   0
4 ECO MODE            :   Y
  
```

Рис. 68

### 8.1.11 Меню визуализаций

1. **Положение PTZ:** Если место отличается от OFF, позволяет выбрать режим, при котором будут визуализироваться на экране положения Pan, Tilt и Zoom. Можно выбрать визуализацию по времени (1 S, 3 S и 5 S) или постоянную (CONST).
2. **Имя Preset:** Если место отличается от OFF, позволяет выбрать режим, при котором будет визуализироваться на экране текст, присвоенный последнему достигнутому положению Preset. Можно выбрать визуализацию по времени (1 S, 3 S и 5 S) или постоянную (CONST).
3. **Имя Зон:** Если место отличается от OFF, позволяет выбрать режим, при котором будут визуализироваться тексты, присвоенные активным зонам. Можно выбрать визуализацию по времени (1 S, 3 S и 5 S) или постоянную (CONST).
4. **ID Наводки:** Если место отличается от OFF, визуализирует ID наводки.
5. **Полученные Команды:** Если место отличается от OFF, позволяет выбрать режим, при котором будут визуализироваться полученные серийные команды. Можно выбрать визуализацию по времени (1 S, 3 S и 5 S) или постоянную (CONST).
6. **Горизонтальная Delta:** Передвигает горизонтально тексты меню, позволяя лучшую центровку их самих.

7. **Вертикальная Delta:** Передвигает вертикально тексты меню, позволяя лучшую центровку их самих.

```

DISPLAY
-----
1>PTZ POSITIONS      : 1 S
2 PRESET NAME       : 3 S
3 AREAS NAME        : OFF
4 UNIT ID           : CONST
5 RECEIVED COMMAND : CONST
HORIZONTAL DELTA    : 3
VERTICAL DELTA     : 3

```

Рис. 69

### 8.1.12 Меню опций

1. **Потолочная Установка:** Включение этого режима дает возможность переворачивание изображения и команд направления.
2. **Тревожные события:** Нажать для доступа к меню тревог.
3. **Установка Мойки:** Позволяет получать доступ к меню установки мойки.

```

OPTION
-----
1>CEILING MOUNT      : N
2 ALARMS             >
3 WASHER             >

```

Рис. 70

### 8.1.12.1 Меню тревог

- 1-5. **Тревога 1-5:** Позволяют доступ к меню, с которого можно устанавливать параметры Тревог от 1 до 5.
6. **Состояние тревог:** Позволяет получать доступ к меню состояния тревог.

```

ALARM
-----
1>ALARM 1           >
2  ALARM 2           >
3  ALARM 3           >
4  ALARM 4           >
5  ALARME 5         >
6  ALARMS STATE     >
    
```

Рис. 71

**i** Если установлена фара IR, тревога 5 зарезервирована для обжимного внешнего выключателя, для которого тревога 5 не появляется на видео.

В меню Тревоги Вы можете получить доступ к одному из меню (Allarme 1-5), где можете изменить параметры тревог.

Из этих меню можно установить следующие значения:

1. **Вид:** Устанавливает тип контакта: обычно закрытый (Н.З.) или обычно открытый (Н.О.)
2. **Действие:** Тип действия, который выполняет узел, когда активируется тревога (Autoran, Patrol, Пеле 1, Пеле 2, Scan, Tour 1, Tour 2, Tour 3, Washer, Wiper). Если выбирается позиция ВЫКЛ, тревога отключается.
3. **Число:** Достигаемый preset, когда типом действия тревоги является Scan.
4. **Текст:** Надпись отображается при активной тревоге.

```

ALARM 1
-----
1>TYPE  :N.C.
2  ACT.  :SCAN
3  NR.   : 1
4  TEXT  :ALARM 1
    
```

Рис. 72

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменять.

С меню Тревоги можно получить доступ к меню Состояние тревог, в котором отображается состояние входа тревог (CLOSED - закрытый контакт, OPEN - открытый контакт).

```

ALARMS STATE
-----
ALARM 1           CLOSED
ALARM 2           OPEN
ALLARME 3         CLOSED
ALLARME 4         CLOSED
ALLARME 5         CLOSED
    
```

Рис. 73

### 8.1.13 Меню установки мойки

Поворотное устройство дает возможность использовать стеклоочиститель и приводить в действие насос для очистки стекла.

Для конфигурации установки мойки установите объектив телекамеры перед соплом установки мойки.

Сохраните preset (XY) для этого положения, которая будет вызываться от насадки, когда включается функция Washer.

Конфигурировать следующие параметры:

1. **Включает:** Подключение функции Washer.
2. **Nozzle Preset:** Введите номер preset (XY), соответствующий соплу.
3. **Wiper On Delay:** Выберите интервал времени, который проходит от активации насоса и от активации стеклоочистителя.
4. **Длительность мойки:** Выберите продолжительность очистки щетками.
5. **Wiper Off Delay:** Выберите продолжительность очистки щетками без воды.

```

WASHER
-----
1>ENABLE           : N
2 NOZZLE PRESET    : 1
3 WIPER-ON DELAY  : 5
4 WASHING DURATION : 10
5 WIPER-OFF DELAY : 5
    
```

Рис. 74

**i** Активация функции Washer резервирует использование реле 2 для включения насоса и снимает возможность привлечения реле 2 к сигналу тревоги.

### 8.1.14 Меню по умолчанию

1. **Аннулировать Setup?:** Восстанавливает все параметры за исключением preset.
2. **Аннулировать Preset?:** Удалить все ранее сохраненные preset.

```

DEFAULT
-----
1>DELETE SETUP?
2 DELETE PRESET?
    
```

Рис. 75

**!** Описанные выше операции ведут к утере всех предварительно сохранённых данных (например: Preset, Patrol, Autopan, Home...).

### 8.1.15 Меню информации

Меню позволяет проверять конфигурацию устройства и версию аппаратно-программного обеспечения.

```

INFO
-----
Address: 1
Protocol : MACRO
RS485-1: 38400 N81 RX
RS485-2: 38400 N81 RIPET
FW: 0a (Apr 14 2009)
HW: 000-0000
Camera   : 36x
PC: UC1PSSA000A
SN: 109032220029
    
```

Рис. 76

## 8.1.16 Меню тепловая камера

1. **Контроль:** Устанавливает тип контроля тепловой камеры:
  - **Внутренняя:** Конфигурация телекамеры управляется наводкой.
  - **Наружная установка:** Конфигурация телекамеры управляется посредством серийного RS-485-3 (только для версии с двойной телекамерой).
2. **Конфигурация:** Устанавливает конфигурации, предусмотренные тепловой камерой.
  - **Standard:** Устанавливает стандартную конфигурацию тепловой камеры.
  - **High Gain:** Устанавливает конфигурацию, предназначенную для наибольшего разрешения изображения.
  - **Isotherm:** Устанавливает конфигурацию, предназначенную для выделения объектов в заданном диапазоне температур (8.1.16.8 Меню теплового анализа (Изотерма), страница 47).
  - **Custom:** Указывает, что конфигурация тепловой камеры была выбрана вручную пользователем.
3. **Корректировка Flat Field:** Позволяет вход в подменю для управления корректировкой Flat Field.

4. **Конфигурация Видео:** Позволяет вход в подменю для управления конфигурацией видео.
5. **Контроль Усиления:** Позволяет вход в подменю для управления контролем усиления.
6. **Конфигурация ROI:** Позволяет вход в подменю для конфигурации ROI.
7. **Термический Анализ:** Позволяет вход в подменю для управления тепловым анализом.
8. **Status:** Позволяет вход в подменю, где приводятся технические характеристики тепловой камеры.

```

THERMAL CAMERA
-----
1>CONTROL   : INTERNAL
2 CONFIG.   : STANDARD
3 FLAT FIELD CORRECTION>
4 VIDEO SETUP      >
5 GAIN CONTROL     >
6 ROI SETUP        >
7 THERMAL ANALYSIS >
8 STATUS          >
```

Рис. 77



### 8.1.16.1 Меню коррективы Flat Field

Тепловая камера имеет внутренний механизм для периодического улучшения качества изображений: коррекция Flat Field (FFC). Параметры, управляющие этой функцией, следующие:

1. **Flat Field Auto:** Подготавливает автоматическую или ручную коррекцию Flat Field. Когда включена автоматическая коррекция, камера выполняет FFC после определённого периода времени или определённого изменения температуры. Напротив, при использовании ручной коррекции операции FFC выполняются по запросу пользователя. Рекомендуется всегда использовать автоматическую коррекцию.
2. **Интервал:** Устанавливает интервал времени, после которого выполняется FFC, когда динамический диапазон усиления высокий. Интервал времени выражается во фреймах (кадрах) (33мс для NTSC, 40мс для PAL).
3. **Низкий интервал:** Устанавливает интервал времени, после которого выполняется FFC, когда динамический диапазон усиления низкий. Интервал времени выражается во фреймах (кадрах) (33мс для NTSC, 40мс для PAL).
4. **Температура:** Устанавливает изменение температуры, после которой выполняется FFC, когда динамический диапазон усиления высокий. Вариация температуры выражается в интервалах в 0,1 °C.
5. **Низкая температура:** Устанавливает интервал температуры, после которой выполняется FFC, когда динамический диапазон усиления низкий. Вариация температуры выражается в интервалах в 0,1 °C.

6. **Режим Усиления:** Позволяет выбирать тип динамического диапазона усиления:
  - **High:** Эта установка предназначена для обеспечения максимального контраста и особым образом предназначена для приложений, выполняющих анализ видео изображений.
  - **Low:** Эта установка увеличивает динамический диапазон изображения и уменьшает контраст. Рекомендуется особым образом для идентификации более горячих элементов изображения.
  - **Auto:** Эта установка позволяет камере переключать режимы High и Low на основе изображения, выводимого в настоящий момент. Параметры меню Значения Смена Усиление, необходимы для изменения настоящего режима работы (8.1.16.2 Меню коррективы Flat Field (величины замены усиления), страница 44).
7. **Выполните FFC:** Выполните операцию FFC.
8. **Значения Смены Усиления:** Позволяет вход в подменю Значений Смены Усиления.

FLAT FIELD CORRECTION	
-----	
1 > FLAT FIELD AUTO:	Y
2 INTERVAL :	7200
3 LOW GAIN INTER. :	1350
4 TEMPERATURE :	5
5 LOW GAIN TEMP. :	10
6 GAIN MODE :	ALTO
7 DO FFC?	
8 GAIN SWITCH VALUES	>

Рис. 78



**Рекомендуется не изменять величин по умолчанию, поскольку они были задуманы для предложения высокого качества изображения при всех условиях работы.**


### 8.1.16.2 Меню коррективы Flat Field (величины замены усиления)


После входа в меню величин замены усиления можно установить один из следующих параметров:

1. **High-Low Threshold:** Устанавливает используемый температурный порог параметра заполнения высоко-низко для форсирования переключения в режим низкого усиления. Величина выражается в градусах Цельсия.
2. **High-Low Population:** Устанавливает минимальное процентное содержание пикселей, свыше которого происходит переключение на режим низкого усиления.
3. **Low-High Threshold:** Устанавливает используемый температурный порог параметра заполнения низко-высоко для форсирования переключения в режим высокого усиления. Величина выражается в градусах Цельсия.
4. **Low-High Population:** Устанавливает минимальное процентное содержание пикселей, свыше которого происходит переключение на режим высокого усиления.

GAIN SWITCH VALUES	
-----	
1 > HIGH-LOW THRESH. :	140
2 HIGH-LOW POP. :	20
3 LOW-HIGH THRESH. :	100
4 LOW-HIGH POP. :	95

Рис. 79

 Рекомендуется не изменять величин по умолчанию, поскольку они были задуманы для предложения высокого качества изображения при всех условиях работы.

 Меню настроек меню величин усиления вступает в силу только тогда, когда режим усиления будет установлен на автоматический (8.1.16.1 Меню коррективы Flat Field, страница 43).

### 8.1.16.3 Меню конфигурации видео

После входа в меню конфигурации видео усиления можно установить один из следующих параметров:

1. **Lut Polarity:** Устанавливает тип окраски изображения, рассматриваемого тепловой камерой.
2. **Предупреждение FFC:** Устанавливает долготу отображения на видео цветного квадрата сверху справа, когда начинается выполнение FFC. Интервал времени выражается во фреймах (кадрах) (33мс для NTSC, 40мс для PAL). Величина ниже 15 фреймов автоматически отключает эту сигнализацию.
3. **Цифровой Зум:** Устанавливает тип зума для применения с сигналом видео (OFF, Auto, 2x, 4x). Если вы используете режим Автоматического зума, тепловая телекамера адаптируется к режиму модуля SONY.
4. **Dynamic DDE:** Устанавливает значение фильтра DDE, служащее для улучшения резкости контуров. Типовые значения, варьируемые от 17 до 25. Значение 17 отключает фильтр.
5. **Test Pattern:** Подготавливает тестовое изображение для проверки электроники камеры.

VIDEO SETUP	
-----	
1 > LUT POLARITY :	WHITE HOT
2 FFC WARNING :	60
3 DIGITAL ZOOM :	AUTO
4 DYNAMIC DDE :	25
5 TEST PATTERN :	N

Рис. 80

### 8.1.16.4 Меню контроля усиления

После входа в меню конфигурации контроля усиления можно установить один из следующих параметров:

1. **Алгоритм:** Устанавливает тип автоматического контроля усиления (AGC) для оптимизации изображения. Можно выбрать один из следующих алгоритмов:
  - **Автоматически:** Устанавливает автоматически контраст и яркость изображения при изменяющихся условиях среды путем выравнивания гистограммы уровней серого. Изображение может быть изменено, изменяя значение параметров ITT Mean, Max Gain и Plateau Value. Этот алгоритм устанавливается по умолчанию и рекомендуется для нормального использования тепловой камеры.
  - **Once Bright:** Установленный уровень яркости является средней величиной значений яркости изображения при выборе этой позиции. Изображение может быть изменено при изменении значения параметра контраста.
  - **Auto Bright:** Установленный уровень яркости является средней величиной значений яркости изображения. Этот уровень обновляется в реальном времени. Изображение может быть изменено при изменении значений параметров контраста и компенсации.
  - **Учебник:** Уровни контраста и яркости были установлены пользователем вручную.
  - **Linear Histogram:** Контракт и яркость изображения оптимизированы при использовании функции линейного переноса. Изображение может быть изменено, изменяя значение параметров ITT Mean, Max Gain.

2. **Plateau Value:** Устанавливает максимальное значение пикселей, которые могут содержаться в одном уровне серого.
3. **Среднее ITT:** Устанавливает среднюю точку шкалы серых.
4. **Max Gain:** Устанавливает максимальное усиление AGC.
5. **Контраст:** Устанавливает уровень контраста изображения.
6. **Яркость:** Устанавливает уровень яркости изображения.
7. **Компенсация:** Устанавливает уровень компенсации яркости изображения.

GAIN CONTROL		
-----		
1>ALGORITHM	:	AUTO
2 PLATEAU VAL.:	:	150
3 ITT MEAN	:	127
4 MAX GAIN	:	8
5 CONTRAST	:	32
6 BRIGHTNESS	:	8192
7 BRIGHT. COMP:	+	0

Рис. 81

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменять.

### 8.1.16.5 Меню конфигурации ROI

После входа в меню конфигурация ROI можно изменить область интереса (ROI), использованную с алгоритма AGC для подсчёта уровней контраста и яркости изображения.

1. **P1 налево:** Устанавливает левое ограничение ROI.
2. **P1 Высоко:** Устанавливает верхнее ограничение ROI.
3. **P2 направо:** Устанавливает правое ограничение ROI.
4. **P2 Низко:** Устанавливает нижнее ограничение ROI.

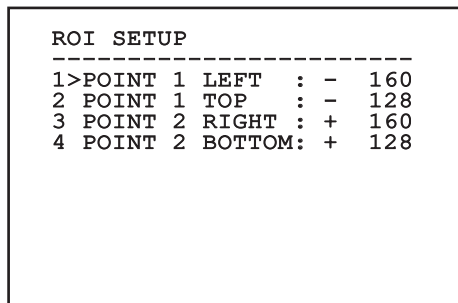


Рис. 82

### 8.1.16.6 Меню теплового анализа

1. **Точка Измерения:** Позволяет вход в подменю для конфигурации точки измерения.
2. **Изотерма:** Позволяет вход в подменю для управления изотермой.

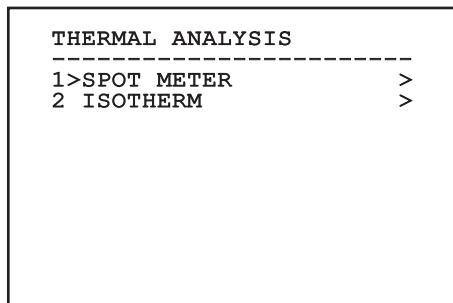


Рис. 83

### 8.1.16.7 Меню теплового анализа (Точка измерения)

После входа в меню точки измерения усиления можно установить один из следующих параметров:

1. **Режим:** Включает отображение температуры, измеренной на 4 пикселях в центре экрана (в градусах Цельсия или Фаренгейта). Опция ВЫКЛ отключает отображение.
2. **Цифровой:** Включает отображение соответствующего символа на дисплее.
3. **Термометр:** Включает отображение соответствующего символа на дисплее.

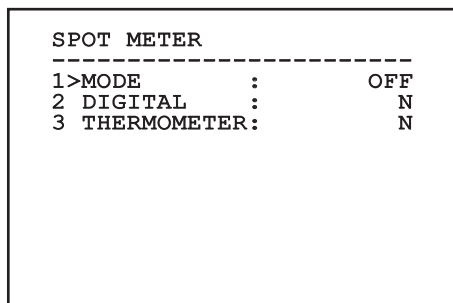


Рис. 84

### 8.1.16.8 Меню теплового анализа (Изотерма)

После входа в меню изотермы можно активировать специальную окраску для предметов, входящих в установленный интервал температуры. Параметры, управляющие этой функцией, следующие:

1. **Включает:** Включает функцию Изотерма.
2. **Режим:** Выбирает режим, в котором выбран интервал (в процентном содержании или в градусах Цельсия).
3. **Верхний:** Устанавливает верхнее ограничение функции Изотерма.
4. **Нижнее:** Устанавливает нижнее ограничение функции Изотерма.

```
ISOTHERM
-----
1>ENABLE      :          N
2  MODE       :      PERCENT
3  UPPER      :          95
4  LOWER      :          90
```

Рис. 85

Меню выполняет динамическую автоконфигурацию в соответствии с выбором при показе параметров, которые можно изменять.

### 8.1.16.9 Меню состояния

После входа в меню состояния можно ознакомиться с техническими характеристиками тепловой телекамеры.

```
STATUS
-----
VERSION SW   : 0A00.022B
FW VERSION   : 0802.0040
CAMERA S.N.  : 00001234
SENSORE S.N. : 00001234
TEMPERATURE  : +0034.0

P.N. 41320035A-SPXXX
```

Рис. 86

## 9 Аксессуары



Для дополнительной информации по конфигурации и использованию обращаться к руководству по эксплуатации соответствующего оборудования.

### 9.1 Установка мойки

Поворотное устройство может быть укомплектовано внешним насосом для очистки стекла.

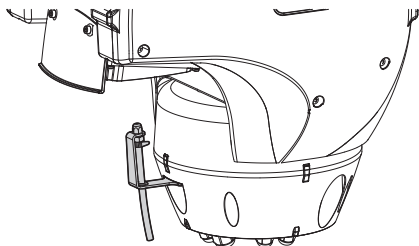


Рис. 87

### 9.2 Настенное крепление

Настенный кронштейн с внутренним кабельным каналом изготовлен из алюминия и окрашен порошковой краской.

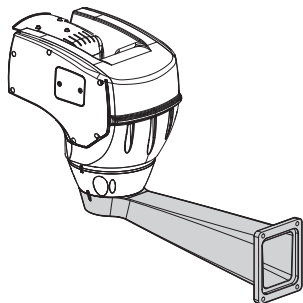


Рис. 88

### 9.3 Кронштейн для поручней

Кронштейн для монтажа на поручни с внутренним прохождением кабелей.

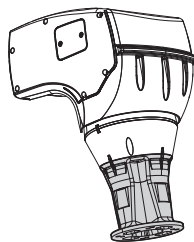


Рис. 89

### 9.4 Кронштейн на потолок



Меняйте зубчатые шайбы каждый раз, когда снимаете корпус с основания.

Прибор может быть установлен в перевернутом положении благодаря кронштейну для крепления к потолку.

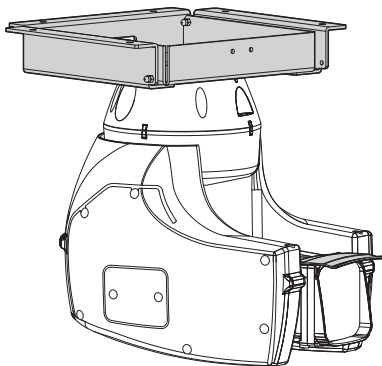


Рис. 90

# 10 Инструкции по обычному функционированию



**Прямая фокусировка на солнце в течение длительного времени может привести к непоправимому ущербу датчику тепловой телекамеры.**

## 10.1 Отображение состояния наводки

Во время нормальной работы по выбору пользователя наводка отображает на мониторе данные, организованные, как показано на рисунке. Отображение может быть включено или выключено (8.1.11 Меню визуализаций, страница 39).

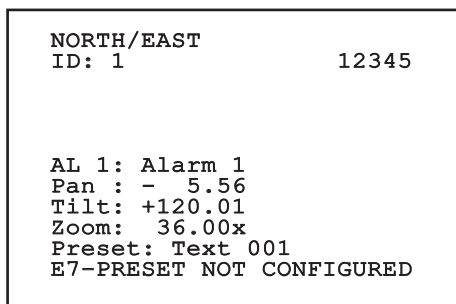


Рис. 91

**NORTH/EAST:** Имя зоны, в которой находитесь.

**ID:** 1: Адрес приёмника.

**12345:** Полный список активных тревог.

**AL 1:** Alarm 1: Текст последней тревоги активен.

**Pan:** - 5.56/Tilt: +120.01/Zoom: 36.00x: Актуальное положение Pan, Tilt и зума.

**Preset:** Text 002: Имя выбранного preset активно.

**E7-PRESET NOT CONFIGURED:** Следующее поле показывает ошибки, обнаруженные во время работы системы или при командах, полученных серийным путем (только при полученных командах отображение может быть включено или выключено).

## 10.2 Сохранение Preset

### 10.2.1 Быстрое сохранение

Посредством клавиатуры контроля можно сохранить актуальное положение. Для дополнительной информации обращаться к руководству по эксплуатации используемой клавиатуры.

Во время сохранения можно изменять скорость достижения Preset кнопками дальней/ближней фокусировки и времени ожидания с кнопками Iris Open/Iris Close.

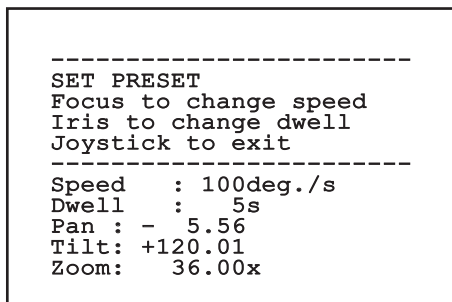


Рис. 92

### 10.2.2 Сохранение с меню

Смотрите 8.1.10.3 Меню Preset, страница 36.

### 10.3 Вызов положения Preset (Scan)

Посредством устройства управления можно вызвать какое-либо положение Preset, сохраненное ранее (за дополнительной информацией обращайтесь к руководству по эксплуатации используемого устройства).

### 10.4 Включение Patrol

По вопросам подключения/отключения функции обращайтесь к руководству по эксплуатации устройства контроля или к соответствующей главе (10.13 Специальные команды, страница 52).

Для отключения функции переместите джойстик или вызовите другой тип движения.

По вопросам конфигурации данной функции обратитесь к соответствующей главе (8.1.10.6 Меню патрулирования (Patrol), страница 37).

### 10.5 Включение

#### автопанорамирования

Функция Autorap постоянно вызывает 2 сохраненные предварительные настройки (preset).

По вопросам подключения/отключения функции обращайтесь к руководству по эксплуатации устройства контроля или к соответствующей главе (10.13 Специальные команды, страница 52).

Для отключения функции переместите джойстик или вызовите другой тип движения.

По вопросам конфигурации данной функции обратитесь к соответствующей главе (8.1.10.7 Меню Autorap (автопанорамирование), страница 37).

### 10.6 Вызов хода (Tour)

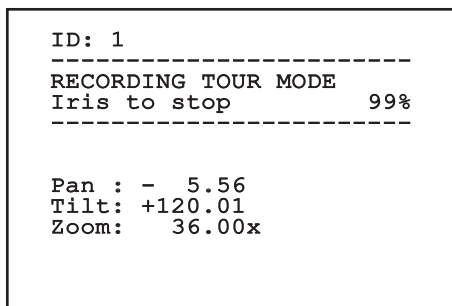
Режим работы Tour позволяет повторять предварительно зарегистрированный непрерывным способом ход.

Наводка может заносить в память до 3 Tour с максимальной продолжительностью 2 минуты каждая.

Для занесения в память одного Tour наберите на клавиатуре специальный preset, относящийся к номеру сохраняемого Tour (10.13 Специальные команды, страница 52).

Чтобы упростить регистрацию Tour, наводка в автоматическом режиме ограничивает скорость Pan и Tilt в зависимости от коэффициента фокусного расстояния.

Во время записи Tour показывается процентное содержание оставшегося времени запуска, как показано на иллюстрации.



**Рис. 93**

Для прерывания регистрации нажмите на кнопку Iris Open или Iris Close.

Для запуска производства цифрового Tour на клавиатуре, специальный preset, относящийся к номеру визуализируемого Tour (10.13 Специальные команды, страница 52).



## 10.7 Вызов положения Home

Посредством клавиатуры управления можно вызвать положение Home (Scan п.1), сохраненное ранее (за дополнительной информацией обращайтесь к руководству по эксплуатации используемого устройства контроля).

## 10.8 Активация стеклоочистителя (Wiper)



**Не пользуйтесь стеклоочистителем, когда внешняя температура ниже 0°C или имеется лёд.**

По вопросам подключения/отключения функции обращайтесь к руководству по эксплуатации устройства контроля или к соответствующей главе (10.13 Специальные команды, страница 52).



**Стеклоочиститель деактивируется автоматически, если остаётся включённым.**

## 10.9 Активирует систему мойки (Washer)

Когда отправляется команда, поворотное устройство располагается окном перед форсункой. Активируются насос и стеклоочиститель на определенный период времени. В конце процедуры поворотное устройство вернется в начальное положение.

По вопросам подключения/отключения функции обращайтесь к руководству по эксплуатации устройства контроля или к соответствующей главе (10.13 Специальные команды, страница 52).

Модели с моющей установкой, оснащенной датчиком уровня, генерируют соответствующее сообщение, когда жидкости в баке недостаточно.

## 10.10 Перезагрузка узла

За дополнительной информацией обратитесь к соответствующей главе (10.13 Специальные команды, страница 52).

## 10.11 Ручная корректировка фокусировки preset

Вызовите preset, в котором вы желаете изменить фокусировку с команды Scan. Измените фокус соответствующими кнопками дальней/ближней фокусировки, не меняя положения Pan/Tilt/Zoom. Сохраните preset с соответствующим Preset.



**Ручная коррекция Preset имеет эффект только в случае, если поля дневной/ночной автофокусировки отключены (8.1.10.5 Меню Preset (Службная Программа Preset), страница 37).**

## 10.12 Переключение втростепенного видеовыхода

Для выбора видеосигнала (встроенный модуль или тепловая телекамера) использовать команды Видео 2 встроенного модуля и Видео 2 тепловой телекамеры. (10.13 Специальные команды, страница 52).

## 10.13 Специальные команды


СПЕЦИАЛЬНЫЕ КОМАНДЫ					
Команда	Протокол				
	VIDEOTEC MACRO	AMERICAN DYNAMICS	ERNITEC	PANASONIC	PELCO D
Регистрация пуска Tour 1	Сохранить Preset 77	Сохранить Preset 77	Сохранить Preset 77	Сохранить Preset 77	Сохранить Preset 77
		Начать запоминание pattern 3		Сохранить Preset 47	Сохранить Pattern 2
Регистрация пуска Tour 2	Сохранить Preset 78	Сохранить Preset 78	Сохранить Preset 78	Сохранить Preset 78	Сохранить Preset 78
				Сохранить Preset 48	Сохранить Pattern 3
Регистрация пуска Tour 3	Сохранить Preset 79	Сохранить Preset 79	Сохранить Preset 79	Сохранить Preset 79	Сохранить Preset 79
				Сохранить Preset 50	Сохранить Pattern 4
Пуск Tour 1	Сохранить Preset 80	Сохранить Preset 80	Сохранить Preset 80	Сохранить Preset 80	Сохранить Preset 80
		Активирует pattern 3		Сохранить Preset 51	Pattern 2
Пуск Tour 2	Сохранить Preset 81	Сохранить Preset 81	Сохранить Preset 81	Сохранить Preset 81	Сохранить Preset 81
				Сохранить Preset 52	Pattern 3
Пуск Tour 3	Сохранить Preset 82	Сохранить Preset 82	Сохранить Preset 82	Сохранить Preset 82	Сохранить Preset 82
				Сохранить Preset 53	Pattern 4
Запись остановки Tour	Iris Open/Close	Iris Open/Close	Iris Open/Close	Iris Open/Close	IrisOpen/Close
		Сохранение нового pattern			Ack

<b>СПЕЦИАЛЬНЫЕ КОМАНДЫ</b>					
<b>Команда</b>	<b>Протокол</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Wiper Start	Сохранить Preset 85	Сохранить Preset 85	Сохранить Preset 85	Сохранить Preset 85	Сохранить Preset 85
	Aux 3 ON	Aux 3 ON	Aux 3 ON	Сохранить Preset 54	Aux 3 ON
	Wip+				
Wiper Stop	Сохранить Preset 86	Сохранить Preset 86	Сохранить Preset 86	Сохранить Preset 86	Сохранить Preset 86
	Aux 3 OFF	Aux 3 OFF	Aux 3 OFF	Сохранить Preset 55	Aux 3 OFF
	Wip-				
Washer	Сохранить Preset 87	Сохранить Preset 87	Сохранить Preset 87	Сохранить Preset 87	Сохранить Preset 87
	Aux 4 ON	Aux 4 ON	Aux 4 ON	Сохранить Preset 56	Aux 4 ON
	Was+				
Ночной Режим Вкл	Сохранить Preset 88	Сохранить Preset 88	Сохранить Preset 88	Сохранить Preset 88	Сохранить Preset 88
				Сохранить Preset 57	
Ночной Режим Выкл	Сохранить Preset 89	Сохранить Preset 89	Сохранить Preset 89	Сохранить Preset 89	Сохранить Preset 89
				Сохранить Preset 58	
Перезагрузка устройства	Сохранить Preset 94	Сохранить Preset 94	Сохранить Preset 94	Сохранить Preset 94	Сохранить Preset 94
	Ini+	Faster+ Zoom out+ Focus far+ Iris open		Сохранить Preset 61	
Активация OSM	Сохранить Preset 95	Сохранить Preset 95	Сохранить Preset 95	Сохранить Preset 95	Сохранить Preset 95
	Men+	Iris open+ Focus+ Zoom out		Сохранить Preset 46	

<b>СПЕЦИАЛЬНЫЕ КОМАНДЫ</b>					
<b>Команда</b>	<b>Протокол</b>				
	<b>VIDEOTEC MACRO</b>	<b>AMERICAN DYNAMICS</b>	<b>ERNITEC</b>	<b>PANASONIC</b>	<b>PELCO D</b>
Patrol Start	Сохранить Preset 93	Сохранить Preset 93	Сохранить Preset 93	Сохранить Preset 93	Сохранить Preset 93
	Pat+	Активирует pattern 1	Активирует patrol (патрулирование)	Сохранить Preset 60	Pattern
Patrol Stop	Сохранить Preset 92	Сохранить Preset 92	Сохранить Preset 92	Сохранить Preset 92	Сохранить Preset 92
	Joystick	Joystick	Joystick	Joystick	Joystick
	Pat-			Сохранить Preset 59	
Autopan Start	Сохранить Preset 99	Сохранить Preset 99	Сохранить Preset 99	Сохранить Preset 99	Сохранить Preset 99
	Apa+	Активирует pattern 2	Активирует Autopan	Сохранить Preset 63	Pattern 1
Autopan Stop	Сохранить Preset 96	Сохранить Preset 96	Сохранить Preset 96	Сохранить Preset 96	Сохранить Preset 96
	Joystick	Joystick	Joystick	Joystick	Joystick
	Apa-			Сохранить Preset 62	
Выполнить FFC	Сохранить Preset 74	Сохранить Preset 74	Сохранить Preset 74	Сохранить Preset 74	Сохранить Preset 74
				Сохранить Preset 43	
Видео 2 тепловая камера	Сохранить Preset 75	Сохранить Preset 75	Сохранить Preset 75	Сохранить Preset 75	Сохранить Preset 75
				Сохранить Preset 44	
Видео 2 встроенный модуль	Сохранить Preset 76	Сохранить Preset 76	Сохранить Preset 76	Сохранить Preset 76	Сохранить Preset 76
				Сохранить Preset 45	

Таб. 12

## 11 Техобслуживание

 Техобслуживание должен выполнить только персонал с квалификацией работы на электрических контурах.

### 11.1 Копирование конфигурации


При необходимости можно выполнять резервное копирование конфигурации поворотного устройства

По любым вопросам обращайтесь в центр технической поддержки VIDEOTECH.

Операция резервного копирования или восстановления может выполняться на месте с помощью специального кабеля, поставляемого вместе с поворотным устройством.

Операция также может быть выполнена на расстоянии (только протоколы VIDEOTECH MACRO и PELCO D) с помощью преобразователя USB/ Последовательного преобразователя 485 (не входит в поставку).

### 11.2 Замена предохранителя

 **ПРЕДУПРЕЖДЕНИЕ!** Во избежание пожароопасности, заменяйте плавкие предохранители такими же, аналогичного типа и значения тока. Замена плавких предохранителей должна выполняться только квалифицированным персоналом.

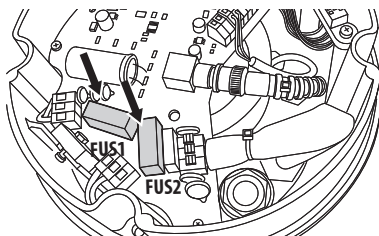


Рис. 94

Используемые плавкие предохранители описаны ниже.


ЗАМЕНА ПРЕДОХРАНИТЕЛИ		
Напряжение	Плавкий предохранитель F1	Плавкий предохранитель F2
24Vac, 50/60Hz	T 4A L 250V 5x20	T 6.3A H 250V 5x20
120Vac, 50/60Hz	T 4A L 250V 5x20	T 4A H 250V 5x20
230Vac, 50/60Hz	T 4A L 250V 5x20	T 2A H 250V 5x20

Таб. 13

Альтернативно используйте плавкий предохранитель установленного типа с аналогичными характеристиками.

## 12 Уборка

### 12.1 Очистка стекла и пластмассовых частей

 Избегать применение этилового спирта, растворителей, гидрированных углеводородов, сильных кислот и щелочей. Использование названных продуктов наносит непоправимый вред обрабатываемой поверхности.

Для очистки линз очков рекомендуется пользоваться мягкой тканью с раствором нейтрального мыла или специальных чистящих средств в воде.

## 13 Вывоз в отходы



**Этот символ и система утилизации имеют значение только в странах ЕС и не находят применения в других странах мира.**

Ваше изделие было изготовлено из материалов и компонентов высокого качества, могущих быть повторно использованными или утилизированными.

Электрические и электронные материалы, на которых имеется указанный символ, в конце срока службы должны выбрасываться отдельно от бытовых отходов.

Просим вывезти это устройство в Центр сбора или на экологическую станцию.

В Европейском Сообществе существуют системы дифференцированного сбора мусора для электронных и электрических изделий.

## 14 Устранение неисправностей

Запросить операцию квалифицированного персонала, поскольку:

- Узел повреждён вследствие падения;
- Эксплуатационные характеристики узла получили явное ухудшение;
- Устройство не работает должным образом, даже если вы выполнили все указания, приведенные в настоящем руководстве.

**ПРОБЛЕМА**      **Устройство не включается.**

**ПРИЧИНА**      *Ошибочная кабельная проводка, поломка плавких предохранителей.*

**РЕШЕНИЕ**      Проверьте правильность выполнения соединений. Проверьте сохранность плавких предохранителей и, в случае неполадки, замените на указанные.

**ПРОБЛЕМА**      **Сохраненные положения preset не соответствуют снятой зоне.**

**ПРИЧИНА**      *Утеря ссылки абсолютного положения.*

ПРОБЛЕМА **Во время включения наводка остаётся заблокированной, визуализируя рабочую область типа:**

```
Address : 1
DE-ICE PROCEDURE
IN PROGRESS...
REMAINING MINUTES:59
```

ПРИЧИНА *Температура окружающей среды очень низкая.*

РЕШЕНИЕ Подождите окончания процедуры предварительного нагрева. Если температура окружающей среды слишком низкая, устройство будет заблокировано, отображая следующую рабочую область:

```
Address : 1
DE-ICE PROCEDURE
-----
SYSTEM BLOCKED
TEMPERATURE TOO LOW
-----
```

ПРОБЛЕМА **Error E1-AUTOPAN WITHOUT LIMITS.**

ПРИЧИНА *Два preset, использованные как ограничения, не были запрограммированы.*

РЕШЕНИЕ Запрограммируйте два preset и затем обновите меню конфигурации autopan ( 10.2 Сохранение Preset, страница 49 e 8.1.10.7 Меню Autopan (автопанорамирование), страница 37).

ПРОБЛЕМА	<b>Error E2-WIPER BLOCKED.</b>
ПРИЧИНА	<i>Заблокирован или сломан Стеклоочиститель.</i>
РЕШЕНИЕ	Убедиться, что стеклоочиститель свободно движется.

ПРОБЛЕМА	<b>Error E3-PATROL WITHOUT PRESET or error E4-PATROL, 1 PRESET ONLY.</b>
ПРИЧИНА	<i>Preset не были запрограммированы.</i>
РЕШЕНИЕ	Запрограммируйте два или более preset и затем обновите меню конфигурации patrol (10.2 Сохранение Preset, страница 49 и 8.1.10.6 Меню патрулирования (Patrol), страница 37).

ПРОБЛЕМА	<b>Error E5-IR TEMP. TOO HIGH or error E6-IR FAULT.</b>
ПРИЧИНА	<i>Некорректная работа инфракрасного прожектора.</i>
РЕШЕНИЕ	Сохранить preset со специальной командой (10.2 Сохранение Preset, страница 49).

ПРОБЛЕМА	<b>Error E7-PRST. NOT CONFIGURED.</b>
ПРИЧИНА	<i>Вызов preset непрограммируем.</i>
РЕШЕНИЕ	Обратитесь в авторизованный центр технической поддержки.

ПРОБЛЕМА	<b>Error E8-TOUR NOT CONFIGURED.</b>
ПРИЧИНА	<i>Вызов Tour непрограммируем.</i>
РЕШЕНИЕ	Сохранить Tour со специальной командой (10.6 Вызов хода (Tour), страница 50).


ПРОБЛЕМА	<b>Error E9-TEMP. TOO LOW.</b>
ПРИЧИНА	<i>Температура окружающей среды очень низкая.</i>
РЕШЕНИЕ	Движения наводки будут заблокированы во избежание механического ущерба.

ПРОБЛЕМА	<b>Сигнал тревоги AL6 :LIV. НИЗКИЙ УРОВЕНЬ ВОДЫ.</b>
ПРИЧИНА	<i>Уровень жидкости для очистки стекол низкий.</i>
РЕШЕНИЕ	Наполните бак насоса специальной стеклоочищающей жидкостью.



## 15 Технические параметры

 **ПРЕДУПРЕЖДЕНИЕ!** Установка типа TNV-1. Не подключайте к системам SELV.

 **ПРЕДУПРЕЖДЕНИЕ!** Для снижения опасности пожара пользуйтесь исключительно кабелями, имеющими сертификат UL Listed или CSA, имеющими размеры не менее 0,13mm<sup>2</sup> (26AWG).

### 15.1 Общее

Корпус из алюминия и ударопрочного пластика

Эпоксиполиэстеровое порошковое покрытие, цвет RAL9002

Германиевое стекло для тепловизора

Простота в установке благодаря самоцентрирующему коннектору

Отсутствие люфта

Быстрая конфигурация и настройка

Система динамического позиционирования

16-символьная строка для наименования зон и предустановок

Функции: Autopan, Preset, Patrol, Tour (макс. 3), Autoflip

### 15.2 Механика

Кабельная муфта: 2xM16, 2xM12

Горизонтальное вращение: продолж.

Вертикальное вращение: от -90° до +90°

Скорость по горизонтали (изменчивый): от 0.1° до 200°/с

Скорость вертикального вращения (изменчивый): от 0.1° до 200°/с

Погрешность репозиций: 0.05°

Вес устройства: 12.5kg

## 15.3 Электрические характеристики

Питание/Потребление тока:

- 230Vac, 0.4A, 50/60Hz
- 24Vac, 4A, 50/60Hz
- 120Vac, 0.8A, 50/60Hz

Потребляемая мощность

- 40W: поворотное устройство остановлено, нагревание выключено
- 60W: поворотное устройство в движении, нагревание выключено
- 125W: пик при включении, нагревание включено

Размер входного кабеля: AWG 16-AWG 19

Размеры сигнальных кабелей: AWG 16-AWG 30

Видео линия: коаксиальный кабель (1Vpp, 75Ohm)

Плата тревоги I/O

- Входы сигнала тревоги: 6
- Выход реле: 2 (2A, 30Vac/60Vdc max)

### 15.4 Сообщения

Конфигурация посредством OSD-меню

Полудуплексный интерфейс RS485, дуплексный RS422

Удаленное обновление версии прошивки программного обеспечения

До 1023 устройств в сети, адресуемых посредством дуплексных переключателей

### 15.5 Протоколы

AMERICAN DYNAMICS, ERNITEC, PANASONIC, PELCO D, VIDEOTEC MACRO

Максимальное количество предварительных настроек (preset) для проверки

- AMERICAN DYNAMICS: 95\*
- ERNITEC: 250
- PANASONIC: 250
- PELCO D: 99\*
- VIDEOTEC MACRO: 250

\*250, только в OSD (On Screen Display)

## 15.6 Телекамеры

### ТЕПЛОВЫЕ ТЕЛЕКАМЕРЫ (РАЗРЕШЕНИЕ 320X256)

	Объектив 35mm		Объектив 25mm		Объектив 19mm		Объектив 13mm		Объектив 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Датчик изображения	Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)	
Разрешение	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240	320x256	320x240
Размеры пикселя	25µm		25µm		25µm		25µm		25µm	
Спектральный ответный сигнал - Длинная инфракрасная длина (LWIR)	от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm	
Внутренний затвор (только для компенсации датчика)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Цифровой зум	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Частота обновления изображения	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Высокая частота обновления изображения	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Диапазон сцена (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Диапазон сцена (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Горизонтальное поле обзора	13°		18°		24°		34°		48°	
Вертикальное поле обзора	10°		14°		18°		26°		37°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.25	
Тепловая чувствительность (NEΔT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Человек (съёмка / распознавание / идентификация)	800m / 200m / 105m		590m / 148m / 75m		450m / 112m / 56m		300m / 74m / 37m		205m / 52m / 26m	
Авто (съёмка / распознавание / Идентификация)	2250m / 590m / 290m		1650m / 430m / 215m		1280m / 330m / 165m		840m / 215m / 108m		590m / 150m / 74m	

Таб. 14

ТЕПЛОВЫЕ ТЕЛЕКАМЕРЫ (РАЗРЕШЕНИЕ 640X512)										
	Объектив 35mm		Объектив 25mm		Объектив 19mm		Объектив 13mm		Объектив 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC
Датчик изображения	Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)		Микроболومتر без охлаждения (VOx)	
Разрешение	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480	640x512	640x480
Размеры пикселя	17µm		17µm		17µm		17µm		17µm	
Спектральный ответный сигнал - Длинная инфракрасная длина (LWIR)	от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm		от 7.5µm до 13.5µm	
Внутренний затвор (только для компенсации датчика)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	✓		✓		✓		✓		✓	
Цифровой зум	2x, 4x		2x, 4x		2x, 4x		2x, 4x		2x, 4x	
Частота обновления изображения	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Высокая частота обновления изображения	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps	25fps	30fps
Диапазон сцена (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Диапазон сцена (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Горизонтальное поле обзора	18°		25°		32°		45°		69°	
Вертикальное поле обзора	14°		20°		26°		37°		56°	
F-number	F/1.2		F/1.1		F/1.25		F/1.25		F/1.4	
Тепловая чувствительность (NEΔT)	< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0		< 50mK a f/1.0	
Человек (съёмка / распознавание / идентификация)	1140m / 280m / 142m		820m / 210m / 104m		570m / 144m / 72m		390m / 95m / 47m		250m / 63m / 31m	
Авто (съёмка / распознавание / Идентификация)	3000m / 800m / 200m		2200m / 580m / 290m		1550m / 400m / 200m		1080m / 275m / 140m		720m / 175m / 88m	

Таб. 15

АНАЛОГОВЫХ КАМЕР (DAY/NIGHT)				
	Day/Night 36x		Day/Night 28x Высокая чувствительность	
	PAL	NTSC	PAL	NTSC
Оптический трансфокатор	36x		28x	
Wide Dynamic Range (Fix/Auto)	✓		-	
True progressive SCAN	✓		-	
Стабилизация цифрового изображения	✓		✓	
Баланс белого цвета	Авто, ATW, В помещении, Пейзаж (Фикс./Авто), Натриевая Лампа (Фикс./Авто)		Авто, ATW, В помещении, Пейзаж (Фикс./Авто), Натриевая Лампа (Фикс./Авто)	
Высокое горизонтальное разрешение	До 550 линий ТВ		До 550 линий ТВ	
День/ночь (Авт. ICR)	✓		✓	
Сенсор изображения	1/4" EXView HAD CCD		1/4" Super HAD CCD II	
Количество эффективных пикселей	~ 440000 pixel	~ 380000 pixel	~ 440000 pixel	~ 380000 pixel
Минимальное освещение Цвет (IR-Cut Filter (автоматически переключаемый фильтр, отсекающий ИК-область спектра)= OFF)	1.4Lux / 1/50s 0.1 Lux / 1/3s	1.4Lux / 1/60s 0.1 Lux / 1/4s	0.25Lux / 1/50s 0.16 Lux / 1/3s	0.25Lux / 1/60s 0.16 Lux / 1/4s
Минимальное освещение В/В	0.01 Lux / 1/3s	0.01 Lux / 1/4s	0.0015 Lux / 1/3s	0.0015 Lux / 1/4s
Режим накопления для ночного наблюдения	✓		✓	
Соотношение S/N	Свыше 50dB		Свыше 50dB	
Контроль АЕ	Автоматический, Приоритет затвора, Приоритет диафрагмы, Приоритет светосилы и Ручной		Автоматический, Приоритет затвора, Приоритет диафрагмы, Приоритет светосилы и Ручной	
Компенсация подсветки	On/Off		On/Off	
Сферическое маскирование (3D) приватных зон с автоматическим обновлением	✓		✓	
Маскирование частной зоны	On/Off (24 позиций)		On/Off (24 позиций)	
Максимальное количество отображаемых блоков каширования	8		8	
Разрешение блоков каширования	160x120 HxV		160x120 HxV	
Каширование	До 15 типов маскирования: 14 цветовых типов и мозаика		До 15 типов маскирования: 14 цветовых типов и мозаика	
Система фокусирования	Авто (Чувствительность: Нормальная, Низкая), Триггер PTZ, Ручной		Авто (Чувствительность: Нормальная, Низкая), Триггер PTZ, Ручной	
"Умный" контроль линз	Технология Автоматического Сброса Модульных Линз		Технология Автоматического Сброса Модульных Линз	
Большой зум и широкий горизонтальный угол	✓		✓	
Оптический трансфокатор	36x, f=3.4 (широкоугольный) а 122.4mm (теле) / F1.6 до F4.5		28x, f=3.5 (широкоугольный) а 98mm (теле) / F1.35 до F3.7	
Цифровой зум	12x (432x с оптическим зумом)		12x (336x с оптическим зумом)	
Угол обзора (А)	57.8 градусов (широкоугольный) до 1.7 градусов (теле)		55.8 градусов (широкоугольный) до 2.1 градусов (теле)	
Минимальное расстояние предмета	320mm (широкоугольный) на 1500mm (теле)		10mm (широкоугольный) на 1500mm (теле)	
Скорость Электронный Ирис	1/1 ÷ 1/10000s		1/1 ÷ 1/10000s	

Таб. 16

## 15.7 Среда

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Внутренняя/Наружная установка

---

Рабочая температура (с нагревателем): от -40°C до +60°C

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Защита от ветра

- В движении: до 160km/h
- В исх. положение: до 210km/h

---

Устойчивость к импульсам: до 2kV линия в линию, до 4kV линия в землю (Class 4)

## 15.8 Сертификация

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Электрическая безопасность (CE): EN60950-1, IEC60950-1

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Электромагнитная совместимость (CE): EN610000-6-4, EN50130-4, EN55022 (Класс А), EN61000-6-4, FCC Part 15 (Класс А)

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Установка снаружи (CE): EN60950-22, IEC60950-22

---

Степень защиты IP корпуса: EN60529 (IP66)


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Сертификация UL: cULus Listed (TYPE 4X)

---

Сертификат EAC

## 16 Технические чертежи

 Размеры в чертежах выражены в миллиметрах.

RU - Русский - Руководство по эксплуатации

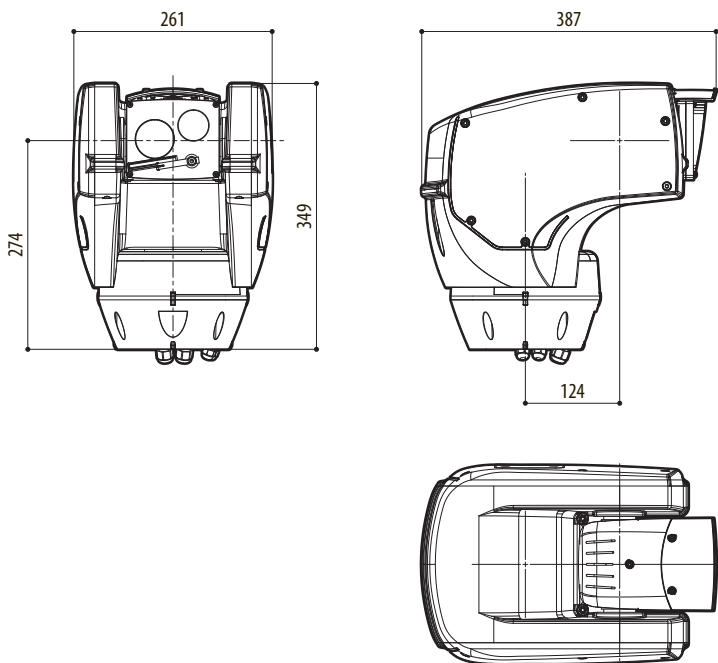


Рис. 95 ULISSE COMPACT THERMAL.

# А Приложение - Таблица адресов



Рычажок переключателя в положении вверх представляет значение 1 (ON), Рычажок вниз - значение 0 (OFF).

Ниже перечислены все возможные комбинации.

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Адрес недействительный	Адрес 512
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 1	Адрес 513
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 2	Адрес 514
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 3	Адрес 515
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 4	Адрес 516
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 5	Адрес 517
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 6	Адрес 518
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	Адрес 7	Адрес 519
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Адрес 8	Адрес 520
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	Адрес 9	Адрес 521
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Адрес 10	Адрес 522
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	Адрес 11	Адрес 523
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Адрес 12	Адрес 524
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	Адрес 13	Адрес 525
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Адрес 14	Адрес 526
ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	Адрес 15	Адрес 527
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Адрес 16	Адрес 528
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	Адрес 17	Адрес 529
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Адрес 18	Адрес 530
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	Адрес 19	Адрес 531
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Адрес 20	Адрес 532
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	Адрес 21	Адрес 533
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Адрес 22	Адрес 534
ON	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	Адрес 23	Адрес 535
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Адрес 24	Адрес 536
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	Адрес 25	Адрес 537
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Адрес 26	Адрес 538
ON	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	Адрес 27	Адрес 539
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Адрес 28	Адрес 540
ON	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	Адрес 29	Адрес 541
OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Адрес 30	Адрес 542
ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	Адрес 31	Адрес 543
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Адрес 32	Адрес 544
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	Адрес 33	Адрес 545
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Адрес 34	Адрес 546
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	Адрес 35	Адрес 547
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Адрес 36	Адрес 548
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	Адрес 37	Адрес 549
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Адрес 38	Адрес 550

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	Адрес 39	Адрес 551
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Адрес 40	Адрес 552
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	Адрес 41	Адрес 553
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Адрес 42	Адрес 554
ON	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	Адрес 43	Адрес 555
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Адрес 44	Адрес 556
ON	OFF	ON	ON	OFF	ON	OFF	OFF	OFF	Адрес 45	Адрес 557
OFF	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Адрес 46	Адрес 558
ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	Адрес 47	Адрес 559
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Адрес 48	Адрес 560
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	Адрес 49	Адрес 561
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Адрес 50	Адрес 562
ON	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	Адрес 51	Адрес 563
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Адрес 52	Адрес 564
ON	OFF	ON	OFF	ON	ON	OFF	OFF	OFF	Адрес 53	Адрес 565
OFF	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Адрес 54	Адрес 566
ON	ON	ON	OFF	ON	ON	OFF	OFF	OFF	Адрес 55	Адрес 567
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Адрес 56	Адрес 568
ON	OFF	OFF	ON	ON	ON	OFF	OFF	OFF	Адрес 57	Адрес 569
OFF	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Адрес 58	Адрес 570
ON	ON	OFF	ON	ON	ON	OFF	OFF	OFF	Адрес 59	Адрес 571
OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Адрес 60	Адрес 572
ON	OFF	ON	ON	ON	ON	OFF	OFF	OFF	Адрес 61	Адрес 573
OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	Адрес 62	Адрес 574
ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	Адрес 63	Адрес 575
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Адрес 64	Адрес 576
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	Адрес 65	Адрес 577
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Адрес 66	Адрес 578
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	Адрес 67	Адрес 579
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Адрес 68	Адрес 580
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	Адрес 69	Адрес 581
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Адрес 70	Адрес 582
ON	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	Адрес 71	Адрес 583
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Адрес 72	Адрес 584
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	Адрес 73	Адрес 585
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Адрес 74	Адрес 586
ON	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	Адрес 75	Адрес 587
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Адрес 76	Адрес 588
ON	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	Адрес 77	Адрес 589
OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Адрес 78	Адрес 590
ON	ON	ON	ON	OFF	OFF	ON	OFF	OFF	Адрес 79	Адрес 591
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Адрес 80	Адрес 592
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	Адрес 81	Адрес 593
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Адрес 82	Адрес 594
ON	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	Адрес 83	Адрес 595



**УСТАНОВКА АДРЕСА (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Адрес 84	Адрес 596
ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	Адрес 85	Адрес 597
OFF	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Адрес 86	Адрес 598
ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF	Адрес 87	Адрес 599
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Адрес 88	Адрес 600
ON	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	Адрес 89	Адрес 601
OFF	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Адрес 90	Адрес 602
ON	ON	OFF	ON	ON	OFF	ON	OFF	OFF	Адрес 91	Адрес 603
OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Адрес 92	Адрес 604
ON	OFF	ON	ON	ON	OFF	ON	OFF	OFF	Адрес 93	Адрес 605
OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF	Адрес 94	Адрес 606
ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	Адрес 95	Адрес 607
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Адрес 96	Адрес 608
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	Адрес 97	Адрес 609
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Адрес 98	Адрес 610
ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	Адрес 99	Адрес 611
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Адрес 100	Адрес 612
ON	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	Адрес 101	Адрес 613
OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Адрес 102	Адрес 614
ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	Адрес 103	Адрес 615
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Адрес 104	Адрес 616
ON	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	Адрес 105	Адрес 617
OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Адрес 106	Адрес 618
ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	Адрес 107	Адрес 619
OFF	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Адрес 108	Адрес 620
ON	OFF	ON	ON	OFF	ON	ON	OFF	OFF	Адрес 109	Адрес 621
OFF	ON	ON	ON	OFF	ON	ON	OFF	OFF	Адрес 110	Адрес 622
ON	ON	ON	ON	OFF	ON	ON	OFF	OFF	Адрес 111	Адрес 623
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Адрес 112	Адрес 624
ON	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	Адрес 113	Адрес 625
OFF	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Адрес 114	Адрес 626
ON	ON	OFF	OFF	ON	ON	ON	OFF	OFF	Адрес 115	Адрес 627
OFF	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Адрес 116	Адрес 628
ON	OFF	ON	OFF	ON	ON	ON	OFF	OFF	Адрес 117	Адрес 629
OFF	ON	ON	OFF	ON	ON	ON	OFF	OFF	Адрес 118	Адрес 630
ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	Адрес 119	Адрес 631
OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Адрес 120	Адрес 632
ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	Адрес 121	Адрес 633
OFF	ON	OFF	ON	ON	ON	ON	OFF	OFF	Адрес 122	Адрес 634
ON	ON	OFF	ON	ON	ON	ON	OFF	OFF	Адрес 123	Адрес 635
OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	Адрес 124	Адрес 636
ON	OFF	ON	ON	ON	ON	ON	OFF	OFF	Адрес 125	Адрес 637
OFF	ON	ON	ON	ON	ON	ON	OFF	OFF	Адрес 126	Адрес 638
ON	ON	ON	ON	ON	ON	ON	OFF	OFF	Адрес 127	Адрес 639
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Адрес 128	Адрес 640

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	Адрес 129	Адрес 641
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Адрес 130	Адрес 642
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	Адрес 131	Адрес 643
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Адрес 132	Адрес 644
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	Адрес 133	Адрес 645
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Адрес 134	Адрес 646
ON	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	Адрес 135	Адрес 647
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Адрес 136	Адрес 648
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	Адрес 137	Адрес 649
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Адрес 138	Адрес 650
ON	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	Адрес 139	Адрес 651
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Адрес 140	Адрес 652
ON	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	Адрес 141	Адрес 653
OFF	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Адрес 142	Адрес 654
ON	ON	ON	ON	OFF	OFF	OFF	ON	OFF	Адрес 143	Адрес 655
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Адрес 144	Адрес 656
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	Адрес 145	Адрес 657
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Адрес 146	Адрес 658
ON	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	Адрес 147	Адрес 659
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Адрес 148	Адрес 660
ON	OFF	ON	OFF	ON	OFF	OFF	ON	OFF	Адрес 149	Адрес 661
OFF	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Адрес 150	Адрес 662
ON	ON	ON	OFF	ON	OFF	OFF	ON	OFF	Адрес 151	Адрес 663
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Адрес 152	Адрес 664
ON	OFF	OFF	ON	ON	OFF	OFF	ON	OFF	Адрес 153	Адрес 665
OFF	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Адрес 154	Адрес 666
ON	ON	OFF	ON	ON	OFF	OFF	ON	OFF	Адрес 155	Адрес 667
OFF	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Адрес 156	Адрес 668
ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	Адрес 157	Адрес 669
OFF	ON	ON	ON	ON	OFF	OFF	ON	OFF	Адрес 158	Адрес 670
ON	ON	ON	ON	ON	OFF	OFF	ON	OFF	Адрес 159	Адрес 671
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Адрес 160	Адрес 672
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	Адрес 161	Адрес 673
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Адрес 162	Адрес 674
ON	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	Адрес 163	Адрес 675
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Адрес 164	Адрес 676
ON	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	Адрес 165	Адрес 677
OFF	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Адрес 166	Адрес 678
ON	ON	ON	OFF	OFF	ON	OFF	ON	OFF	Адрес 167	Адрес 679
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Адрес 168	Адрес 680
ON	OFF	OFF	ON	OFF	ON	OFF	ON	OFF	Адрес 169	Адрес 681
OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Адрес 170	Адрес 682
ON	ON	OFF	ON	OFF	ON	OFF	ON	OFF	Адрес 171	Адрес 683
OFF	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Адрес 172	Адрес 684
ON	OFF	ON	ON	OFF	ON	OFF	ON	OFF	Адрес 173	Адрес 685

**УСТАНОВКА АДРЕСА (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	ON	ON	OFF	ON	OFF	ON	OFF	Адрес 174	Адрес 686
ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	Адрес 175	Адрес 687
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Адрес 176	Адрес 688
ON	OFF	OFF	OFF	ON	ON	OFF	ON	OFF	Адрес 177	Адрес 689
OFF	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Адрес 178	Адрес 690
ON	ON	OFF	OFF	ON	ON	OFF	ON	OFF	Адрес 179	Адрес 691
OFF	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Адрес 180	Адрес 692
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	Адрес 181	Адрес 693
OFF	ON	ON	OFF	ON	ON	OFF	ON	OFF	Адрес 182	Адрес 694
ON	ON	ON	OFF	ON	ON	OFF	ON	OFF	Адрес 183	Адрес 695
OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Адрес 184	Адрес 696
ON	OFF	OFF	ON	ON	ON	OFF	ON	OFF	Адрес 185	Адрес 697
OFF	ON	OFF	ON	ON	ON	OFF	ON	OFF	Адрес 186	Адрес 698
ON	ON	OFF	ON	ON	ON	OFF	ON	OFF	Адрес 187	Адрес 699
OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	Адрес 188	Адрес 700
ON	OFF	ON	ON	ON	ON	OFF	ON	OFF	Адрес 189	Адрес 701
OFF	ON	ON	ON	ON	ON	OFF	ON	OFF	Адрес 190	Адрес 702
ON	ON	ON	ON	ON	ON	OFF	ON	OFF	Адрес 191	Адрес 703
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Адрес 192	Адрес 704
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	Адрес 193	Адрес 705
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Адрес 194	Адрес 706
ON	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	Адрес 195	Адрес 707
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Адрес 196	Адрес 708
ON	OFF	ON	OFF	OFF	OFF	ON	ON	OFF	Адрес 197	Адрес 709
OFF	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Адрес 198	Адрес 710
ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	Адрес 199	Адрес 711
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Адрес 200	Адрес 712
ON	OFF	OFF	ON	OFF	OFF	ON	ON	OFF	Адрес 201	Адрес 713
OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Адрес 202	Адрес 714
ON	ON	OFF	ON	OFF	OFF	ON	ON	OFF	Адрес 203	Адрес 715
OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Адрес 204	Адрес 716
ON	OFF	ON	ON	OFF	OFF	ON	ON	OFF	Адрес 205	Адрес 717
OFF	ON	ON	ON	OFF	OFF	ON	ON	OFF	Адрес 206	Адрес 718
ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	Адрес 207	Адрес 719
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Адрес 208	Адрес 720
ON	OFF	OFF	OFF	ON	OFF	ON	ON	OFF	Адрес 209	Адрес 721
OFF	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Адрес 210	Адрес 722
ON	ON	OFF	OFF	ON	OFF	ON	ON	OFF	Адрес 211	Адрес 723
OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Адрес 212	Адрес 724
ON	OFF	ON	OFF	ON	OFF	ON	ON	OFF	Адрес 213	Адрес 725
OFF	ON	ON	OFF	ON	OFF	ON	ON	OFF	Адрес 214	Адрес 726
ON	ON	ON	OFF	ON	OFF	ON	ON	OFF	Адрес 215	Адрес 727
OFF	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Адрес 216	Адрес 728
ON	OFF	OFF	ON	ON	OFF	ON	ON	OFF	Адрес 217	Адрес 729
OFF	ON	OFF	ON	ON	OFF	ON	ON	OFF	Адрес 218	Адрес 730

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	OFF	ON	ON	OFF	ON	ON	OFF	Адрес 219	Адрес 731
OFF	OFF	ON	ON	ON	OFF	ON	ON	OFF	Адрес 220	Адрес 732
ON	OFF	ON	ON	ON	OFF	ON	ON	OFF	Адрес 221	Адрес 733
OFF	ON	ON	ON	ON	OFF	ON	ON	OFF	Адрес 222	Адрес 734
ON	ON	ON	ON	ON	OFF	ON	ON	OFF	Адрес 223	Адрес 735
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Адрес 224	Адрес 736
ON	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	Адрес 225	Адрес 737
OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Адрес 226	Адрес 738
ON	ON	OFF	OFF	OFF	ON	ON	ON	OFF	Адрес 227	Адрес 739
OFF	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Адрес 228	Адрес 740
ON	OFF	ON	OFF	OFF	ON	ON	ON	OFF	Адрес 229	Адрес 741
OFF	ON	ON	OFF	OFF	ON	ON	ON	OFF	Адрес 230	Адрес 742
ON	ON	ON	OFF	OFF	ON	ON	ON	OFF	Адрес 231	Адрес 743
OFF	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Адрес 232	Адрес 744
ON	OFF	OFF	ON	OFF	ON	ON	ON	OFF	Адрес 233	Адрес 745
OFF	ON	OFF	ON	OFF	ON	ON	ON	OFF	Адрес 234	Адрес 746
ON	ON	OFF	ON	OFF	ON	ON	ON	OFF	Адрес 235	Адрес 747
OFF	OFF	ON	ON	OFF	ON	ON	ON	OFF	Адрес 236	Адрес 748
ON	OFF	ON	ON	OFF	ON	ON	ON	OFF	Адрес 237	Адрес 749
OFF	ON	ON	ON	OFF	ON	ON	ON	OFF	Адрес 238	Адрес 750
ON	ON	ON	ON	OFF	ON	ON	ON	OFF	Адрес 239	Адрес 751
OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Адрес 240	Адрес 752
ON	OFF	OFF	OFF	ON	ON	ON	ON	OFF	Адрес 241	Адрес 753
OFF	ON	OFF	OFF	ON	ON	ON	ON	OFF	Адрес 242	Адрес 754
ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	Адрес 243	Адрес 755
OFF	OFF	ON	OFF	ON	ON	ON	ON	OFF	Адрес 244	Адрес 756
ON	OFF	ON	OFF	ON	ON	ON	ON	OFF	Адрес 245	Адрес 757
OFF	ON	ON	OFF	ON	ON	ON	ON	OFF	Адрес 246	Адрес 758
ON	ON	ON	OFF	ON	ON	ON	ON	OFF	Адрес 247	Адрес 759
OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	Адрес 248	Адрес 760
ON	OFF	OFF	ON	ON	ON	ON	ON	OFF	Адрес 249	Адрес 761
OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	Адрес 250	Адрес 762
ON	ON	OFF	ON	ON	ON	ON	ON	OFF	Адрес 251	Адрес 763
OFF	OFF	ON	ON	ON	ON	ON	ON	OFF	Адрес 252	Адрес 764
ON	OFF	ON	ON	ON	ON	ON	ON	OFF	Адрес 253	Адрес 765
OFF	ON	ON	ON	ON	ON	ON	ON	OFF	Адрес 254	Адрес 766
ON	ON	ON	ON	ON	ON	ON	ON	OFF	Адрес 255	Адрес 767
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Адрес 256	Адрес 768
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	Адрес 257	Адрес 769
OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Адрес 258	Адрес 770
ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	Адрес 259	Адрес 771
OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Адрес 260	Адрес 772
ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	Адрес 261	Адрес 773
OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Адрес 262	Адрес 774
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	Адрес 263	Адрес 775

**УСТАНОВКА АДРЕСА (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Адрес 264	Адрес 776
ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	Адрес 265	Адрес 777
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Адрес 266	Адрес 778
ON	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	Адрес 267	Адрес 779
OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Адрес 268	Адрес 780
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	ON	Адрес 269	Адрес 781
OFF	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Адрес 270	Адрес 782
ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	Адрес 271	Адрес 783
OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Адрес 272	Адрес 784
ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	Адрес 273	Адрес 785
OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Адрес 274	Адрес 786
ON	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	Адрес 275	Адрес 787
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Адрес 276	Адрес 788
ON	OFF	ON	OFF	ON	OFF	OFF	OFF	ON	Адрес 277	Адрес 789
OFF	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Адрес 278	Адрес 790
ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON	Адрес 279	Адрес 791
OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Адрес 280	Адрес 792
ON	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	Адрес 281	Адрес 793
OFF	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Адрес 282	Адрес 794
ON	ON	OFF	ON	ON	OFF	OFF	OFF	ON	Адрес 283	Адрес 795
OFF	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Адрес 284	Адрес 796
ON	OFF	ON	ON	ON	OFF	OFF	OFF	ON	Адрес 285	Адрес 797
OFF	ON	ON	ON	ON	OFF	OFF	OFF	ON	Адрес 286	Адрес 798
ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	Адрес 287	Адрес 799
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Адрес 288	Адрес 800
ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	Адрес 289	Адрес 801
OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Адрес 290	Адрес 802
ON	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	Адрес 291	Адрес 803
OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Адрес 292	Адрес 804
ON	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	Адрес 293	Адрес 805
OFF	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Адрес 294	Адрес 806
ON	ON	ON	OFF	OFF	ON	OFF	OFF	ON	Адрес 295	Адрес 807
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Адрес 296	Адрес 808
ON	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	Адрес 297	Адрес 809
OFF	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Адрес 298	Адрес 810
ON	ON	OFF	ON	OFF	ON	OFF	OFF	ON	Адрес 299	Адрес 811
OFF	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Адрес 300	Адрес 812
ON	OFF	ON	ON	OFF	ON	OFF	OFF	ON	Адрес 301	Адрес 813
OFF	ON	ON	ON	OFF	ON	OFF	OFF	ON	Адрес 302	Адрес 814
ON	ON	ON	ON	OFF	ON	OFF	OFF	ON	Адрес 303	Адрес 815
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Адрес 304	Адрес 816
ON	OFF	OFF	OFF	ON	ON	OFF	OFF	ON	Адрес 305	Адрес 817
OFF	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Адрес 306	Адрес 818
ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	Адрес 307	Адрес 819
OFF	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Адрес 308	Адрес 820

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON	Адрес 309	Адрес 821
OFF	ON	ON	OFF	ON	ON	OFF	OFF	ON	Адрес 310	Адрес 822
ON	ON	ON	OFF	ON	ON	OFF	OFF	ON	Адрес 311	Адрес 823
OFF	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Адрес 312	Адрес 824
ON	OFF	OFF	ON	ON	ON	OFF	OFF	ON	Адрес 313	Адрес 825
OFF	ON	OFF	ON	ON	ON	OFF	OFF	ON	Адрес 314	Адрес 826
ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	Адрес 315	Адрес 827
OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	Адрес 316	Адрес 828
ON	OFF	ON	ON	ON	ON	OFF	OFF	ON	Адрес 317	Адрес 829
OFF	ON	ON	ON	ON	ON	OFF	OFF	ON	Адрес 318	Адрес 830
ON	ON	ON	ON	ON	ON	OFF	OFF	ON	Адрес 319	Адрес 831
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Адрес 320	Адрес 832
ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	Адрес 321	Адрес 833
OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Адрес 322	Адрес 834
ON	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	Адрес 323	Адрес 835
OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Адрес 324	Адрес 836
ON	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	Адрес 325	Адрес 837
OFF	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Адрес 326	Адрес 838
ON	ON	ON	OFF	OFF	OFF	ON	OFF	ON	Адрес 327	Адрес 839
OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Адрес 328	Адрес 840
ON	OFF	OFF	ON	OFF	OFF	ON	OFF	ON	Адрес 329	Адрес 841
OFF	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Адрес 330	Адрес 842
ON	ON	OFF	ON	OFF	OFF	ON	OFF	ON	Адрес 331	Адрес 843
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Адрес 332	Адрес 844
ON	OFF	ON	ON	OFF	OFF	ON	OFF	ON	Адрес 333	Адрес 845
OFF	ON	ON	ON	OFF	OFF	ON	OFF	ON	Адрес 334	Адрес 846
ON	ON	ON	ON	OFF	OFF	ON	OFF	ON	Адрес 335	Адрес 847
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Адрес 336	Адрес 848
ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	Адрес 337	Адрес 849
OFF	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Адрес 338	Адрес 850
ON	ON	OFF	OFF	ON	OFF	ON	OFF	ON	Адрес 339	Адрес 851
OFF	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Адрес 340	Адрес 852
ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	Адрес 341	Адрес 853
OFF	ON	ON	OFF	ON	OFF	ON	OFF	ON	Адрес 342	Адрес 854
ON	ON	ON	OFF	ON	OFF	ON	OFF	ON	Адрес 343	Адрес 855
OFF	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Адрес 344	Адрес 856
ON	OFF	OFF	ON	ON	OFF	ON	OFF	ON	Адрес 345	Адрес 857
OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON	Адрес 346	Адрес 858
ON	ON	OFF	ON	ON	OFF	ON	OFF	ON	Адрес 347	Адрес 859
OFF	OFF	ON	ON	ON	OFF	ON	OFF	ON	Адрес 348	Адрес 860
ON	OFF	ON	ON	ON	OFF	ON	OFF	ON	Адрес 349	Адрес 861
OFF	ON	ON	ON	ON	OFF	ON	OFF	ON	Адрес 350	Адрес 862
ON	ON	ON	ON	ON	OFF	ON	OFF	ON	Адрес 351	Адрес 863
OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Адрес 352	Адрес 864
ON	OFF	OFF	OFF	OFF	ON	ON	OFF	ON	Адрес 353	Адрес 865

**УСТАНОВКА АДРЕСА (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Адрес 354	Адрес 866
ON	ON	OFF	OFF	OFF	ON	ON	OFF	ON	Адрес 355	Адрес 867
OFF	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Адрес 356	Адрес 868
ON	OFF	ON	OFF	OFF	ON	ON	OFF	ON	Адрес 357	Адрес 869
OFF	ON	ON	OFF	OFF	ON	ON	OFF	ON	Адрес 358	Адрес 870
ON	ON	ON	OFF	OFF	ON	ON	OFF	ON	Адрес 359	Адрес 871
OFF	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Адрес 360	Адрес 872
ON	OFF	OFF	ON	OFF	ON	ON	OFF	ON	Адрес 361	Адрес 873
OFF	ON	OFF	ON	OFF	ON	ON	OFF	ON	Адрес 362	Адрес 874
ON	ON	OFF	ON	OFF	ON	ON	OFF	ON	Адрес 363	Адрес 875
OFF	OFF	ON	ON	OFF	ON	ON	OFF	ON	Адрес 364	Адрес 876
ON	OFF	ON	ON	OFF	ON	ON	OFF	ON	Адрес 365	Адрес 877
OFF	ON	ON	ON	OFF	ON	ON	OFF	ON	Адрес 366	Адрес 878
ON	ON	ON	ON	OFF	ON	ON	OFF	ON	Адрес 367	Адрес 879
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Адрес 368	Адрес 880
ON	OFF	OFF	OFF	ON	ON	ON	OFF	ON	Адрес 369	Адрес 881
OFF	ON	OFF	OFF	ON	ON	ON	OFF	ON	Адрес 370	Адрес 882
ON	ON	OFF	OFF	ON	ON	ON	OFF	ON	Адрес 371	Адрес 883
OFF	OFF	ON	OFF	ON	ON	ON	OFF	ON	Адрес 372	Адрес 884
ON	OFF	ON	OFF	ON	ON	ON	OFF	ON	Адрес 373	Адрес 885
OFF	ON	ON	OFF	ON	ON	ON	OFF	ON	Адрес 374	Адрес 886
ON	ON	ON	OFF	ON	ON	ON	OFF	ON	Адрес 375	Адрес 887
OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	Адрес 376	Адрес 888
ON	OFF	OFF	ON	ON	ON	ON	OFF	ON	Адрес 377	Адрес 889
OFF	ON	OFF	ON	ON	ON	ON	OFF	ON	Адрес 378	Адрес 890
ON	ON	OFF	ON	ON	ON	ON	OFF	ON	Адрес 379	Адрес 891
OFF	OFF	ON	ON	ON	ON	ON	OFF	ON	Адрес 380	Адрес 892
ON	OFF	ON	ON	ON	ON	ON	OFF	ON	Адрес 381	Адрес 893
OFF	ON	ON	ON	ON	ON	ON	OFF	ON	Адрес 382	Адрес 894
ON	ON	ON	ON	ON	ON	ON	OFF	ON	Адрес 383	Адрес 895
OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Адрес 384	Адрес 896
ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	Адрес 385	Адрес 897
OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Адрес 386	Адрес 898
ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	Адрес 387	Адрес 899
OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Адрес 388	Адрес 900
ON	OFF	ON	OFF	OFF	OFF	OFF	ON	ON	Адрес 389	Адрес 901
OFF	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Адрес 390	Адрес 902
ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	Адрес 391	Адрес 903
OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Адрес 392	Адрес 904
ON	OFF	OFF	ON	OFF	OFF	OFF	ON	ON	Адрес 393	Адрес 905
OFF	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Адрес 394	Адрес 906
ON	ON	OFF	ON	OFF	OFF	OFF	ON	ON	Адрес 395	Адрес 907
OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Адрес 396	Адрес 908
ON	OFF	ON	ON	OFF	OFF	OFF	ON	ON	Адрес 397	Адрес 909
OFF	ON	ON	ON	OFF	OFF	OFF	ON	ON	Адрес 398	Адрес 910

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	Адрес 399	Адрес 911
OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Адрес 400	Адрес 912
ON	OFF	OFF	OFF	ON	OFF	OFF	ON	ON	Адрес 401	Адрес 913
OFF	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Адрес 402	Адрес 914
ON	ON	OFF	OFF	ON	OFF	OFF	ON	ON	Адрес 403	Адрес 915
OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Адрес 404	Адрес 916
ON	OFF	ON	OFF	ON	OFF	OFF	ON	ON	Адрес 405	Адрес 917
OFF	ON	ON	OFF	ON	OFF	OFF	ON	ON	Адрес 406	Адрес 918
ON	ON	ON	OFF	ON	OFF	OFF	ON	ON	Адрес 407	Адрес 919
OFF	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Адрес 408	Адрес 920
ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	Адрес 409	Адрес 921
OFF	ON	OFF	ON	ON	OFF	OFF	ON	ON	Адрес 410	Адрес 922
ON	ON	OFF	ON	ON	OFF	OFF	ON	ON	Адрес 411	Адрес 923
OFF	OFF	ON	ON	ON	OFF	OFF	ON	ON	Адрес 412	Адрес 924
ON	OFF	ON	ON	ON	OFF	OFF	ON	ON	Адрес 413	Адрес 925
OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	Адрес 414	Адрес 926
ON	ON	ON	ON	ON	OFF	OFF	ON	ON	Адрес 415	Адрес 927
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Адрес 416	Адрес 928
ON	OFF	OFF	OFF	OFF	ON	OFF	ON	ON	Адрес 417	Адрес 929
OFF	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Адрес 418	Адрес 930
ON	ON	OFF	OFF	OFF	ON	OFF	ON	ON	Адрес 419	Адрес 931
OFF	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Адрес 420	Адрес 932
ON	OFF	ON	OFF	OFF	ON	OFF	ON	ON	Адрес 421	Адрес 933
OFF	ON	ON	OFF	OFF	ON	OFF	ON	ON	Адрес 422	Адрес 934
ON	ON	ON	OFF	OFF	ON	OFF	ON	ON	Адрес 423	Адрес 935
OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Адрес 424	Адрес 936
ON	OFF	OFF	ON	OFF	ON	OFF	ON	ON	Адрес 425	Адрес 937
OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	Адрес 426	Адрес 938
ON	ON	OFF	ON	OFF	ON	OFF	ON	ON	Адрес 427	Адрес 939
OFF	OFF	ON	ON	OFF	ON	OFF	ON	ON	Адрес 428	Адрес 940
ON	OFF	ON	ON	OFF	ON	OFF	ON	ON	Адрес 429	Адрес 941
OFF	ON	ON	ON	OFF	ON	OFF	ON	ON	Адрес 430	Адрес 942
ON	ON	ON	ON	OFF	ON	OFF	ON	ON	Адрес 431	Адрес 943
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Адрес 432	Адрес 944
ON	OFF	OFF	OFF	ON	ON	OFF	ON	ON	Адрес 433	Адрес 945
OFF	ON	OFF	OFF	ON	ON	OFF	ON	ON	Адрес 434	Адрес 946
ON	ON	OFF	OFF	ON	ON	OFF	ON	ON	Адрес 435	Адрес 947
OFF	OFF	ON	OFF	ON	ON	OFF	ON	ON	Адрес 436	Адрес 948
ON	OFF	ON	OFF	ON	ON	OFF	ON	ON	Адрес 437	Адрес 949
OFF	ON	ON	OFF	ON	ON	OFF	ON	ON	Адрес 438	Адрес 950
ON	ON	ON	OFF	ON	ON	OFF	ON	ON	Адрес 439	Адрес 951
OFF	OFF	OFF	ON	ON	ON	OFF	ON	ON	Адрес 440	Адрес 952
ON	OFF	OFF	ON	ON	ON	OFF	ON	ON	Адрес 441	Адрес 953
OFF	ON	OFF	ON	ON	ON	OFF	ON	ON	Адрес 442	Адрес 954
ON	ON	OFF	ON	ON	ON	OFF	ON	ON	Адрес 443	Адрес 955



**УСТАНОВКА АДРЕСА (DIP 2)**

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
OFF	OFF	ON	ON	ON	ON	OFF	ON	ON	Адрес 444	Адрес 956
ON	OFF	ON	ON	ON	ON	OFF	ON	ON	Адрес 445	Адрес 957
OFF	ON	ON	ON	ON	ON	OFF	ON	ON	Адрес 446	Адрес 958
ON	ON	ON	ON	ON	ON	OFF	ON	ON	Адрес 447	Адрес 959
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Адрес 448	Адрес 960
ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	Адрес 449	Адрес 961
OFF	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Адрес 450	Адрес 962
ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	Адрес 451	Адрес 963
OFF	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Адрес 452	Адрес 964
ON	OFF	ON	OFF	OFF	OFF	ON	ON	ON	Адрес 453	Адрес 965
OFF	ON	ON	OFF	OFF	OFF	ON	ON	ON	Адрес 454	Адрес 966
ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	Адрес 455	Адрес 967
OFF	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Адрес 456	Адрес 968
ON	OFF	OFF	ON	OFF	OFF	ON	ON	ON	Адрес 457	Адрес 969
OFF	ON	OFF	ON	OFF	OFF	ON	ON	ON	Адрес 458	Адрес 970
ON	ON	OFF	ON	OFF	OFF	ON	ON	ON	Адрес 459	Адрес 971
OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	Адрес 460	Адрес 972
ON	OFF	ON	ON	OFF	OFF	ON	ON	ON	Адрес 461	Адрес 973
OFF	ON	ON	ON	OFF	OFF	ON	ON	ON	Адрес 462	Адрес 974
ON	ON	ON	ON	OFF	OFF	ON	ON	ON	Адрес 463	Адрес 975
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Адрес 464	Адрес 976
ON	OFF	OFF	OFF	ON	OFF	ON	ON	ON	Адрес 465	Адрес 977
OFF	ON	OFF	OFF	ON	OFF	ON	ON	ON	Адрес 466	Адрес 978
ON	ON	OFF	OFF	ON	OFF	ON	ON	ON	Адрес 467	Адрес 979
OFF	OFF	ON	OFF	ON	OFF	ON	ON	ON	Адрес 468	Адрес 980
ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	Адрес 469	Адрес 981
OFF	ON	ON	OFF	ON	OFF	ON	ON	ON	Адрес 470	Адрес 982
ON	ON	ON	OFF	ON	OFF	ON	ON	ON	Адрес 471	Адрес 983
OFF	OFF	OFF	ON	ON	OFF	ON	ON	ON	Адрес 472	Адрес 984
ON	OFF	OFF	ON	ON	OFF	ON	ON	ON	Адрес 473	Адрес 985
OFF	ON	OFF	ON	ON	OFF	ON	ON	ON	Адрес 474	Адрес 986
ON	ON	OFF	ON	ON	OFF	ON	ON	ON	Адрес 475	Адрес 987
OFF	OFF	ON	ON	ON	OFF	ON	ON	ON	Адрес 476	Адрес 988
ON	OFF	ON	ON	ON	OFF	ON	ON	ON	Адрес 477	Адрес 989
OFF	ON	ON	ON	ON	OFF	ON	ON	ON	Адрес 478	Адрес 990
ON	ON	ON	ON	ON	OFF	ON	ON	ON	Адрес 479	Адрес 991
OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Адрес 480	Адрес 992
ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	Адрес 481	Адрес 993
OFF	ON	OFF	OFF	OFF	ON	ON	ON	ON	Адрес 482	Адрес 994
ON	ON	OFF	OFF	OFF	ON	ON	ON	ON	Адрес 483	Адрес 995
OFF	OFF	ON	OFF	OFF	ON	ON	ON	ON	Адрес 484	Адрес 996
ON	OFF	ON	OFF	OFF	ON	ON	ON	ON	Адрес 485	Адрес 997
OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	Адрес 486	Адрес 998
ON	ON	ON	OFF	OFF	ON	ON	ON	ON	Адрес 487	Адрес 999
OFF	OFF	OFF	ON	OFF	ON	ON	ON	ON	Адрес 488	Адрес 1000

УСТАНОВКА АДРЕСА (DIP 2)										
SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10 (OFF)	SW 10 (ON)
ON	OFF	OFF	ON	OFF	ON	ON	ON	ON	Адрес 489	Адрес 1001
OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	Адрес 490	Адрес 1002
ON	ON	OFF	ON	OFF	ON	ON	ON	ON	Адрес 491	Адрес 1003
OFF	OFF	ON	ON	OFF	ON	ON	ON	ON	Адрес 492	Адрес 1004
ON	OFF	ON	ON	OFF	ON	ON	ON	ON	Адрес 493	Адрес 1005
OFF	ON	ON	ON	OFF	ON	ON	ON	ON	Адрес 494	Адрес 1006
ON	ON	ON	ON	OFF	ON	ON	ON	ON	Адрес 495	Адрес 1007
OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	Адрес 496	Адрес 1008
ON	OFF	OFF	OFF	ON	ON	ON	ON	ON	Адрес 497	Адрес 1009
OFF	ON	OFF	OFF	ON	ON	ON	ON	ON	Адрес 498	Адрес 1010
ON	ON	OFF	OFF	ON	ON	ON	ON	ON	Адрес 499	Адрес 1011
OFF	OFF	ON	OFF	ON	ON	ON	ON	ON	Адрес 500	Адрес 1012
ON	OFF	ON	OFF	ON	ON	ON	ON	ON	Адрес 501	Адрес 1013
OFF	ON	ON	OFF	ON	ON	ON	ON	ON	Адрес 502	Адрес 1014
ON	ON	ON	OFF	ON	ON	ON	ON	ON	Адрес 503	Адрес 1015
OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	Адрес 504	Адрес 1016
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	Адрес 505	Адрес 1017
OFF	ON	OFF	ON	ON	ON	ON	ON	ON	Адрес 506	Адрес 1018
ON	ON	OFF	ON	ON	ON	ON	ON	ON	Адрес 507	Адрес 1019
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	Адрес 508	Адрес 1020
ON	OFF	ON	ON	ON	ON	ON	ON	ON	Адрес 509	Адрес 1021
OFF	ON	ON	ON	ON	ON	ON	ON	ON	Адрес 510	Адрес 1022
ON	ON	ON	ON	ON	ON	ON	ON	ON	Адрес 511	Адрес 1023

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