

# **RK Series IP Cameras**

Indications for PTZ motorized versions



## **PTZ motorized cameras user manual**

How to use motorized cameras

# Contents of the manual

The RK series camera range is a range of IP cameras for wired network connection or WiFi. There are several manuals that describe the various functions of this range and the installation and configuration procedures.

This manual explains how to use motorized RK cameras, also called PTZ.

# Installation of PTZ cameras

## CONNECTIONS

The RK series speed dome cameras, like normal fixed cameras, have only 2 connections: a mains socket and a 12VDC power plug.

The cameras support 12VDC power or POE power along the cable net. Unlike analog models, motorized IP cameras do not require cables additions to the command.



- RJ45 NETWORK PORT - RJ45 FEMALE connector to connect the LAN network. This door It is used to connect to a network switch using a regular LAN cable.
- 12VDC – Plug to connect the 220VAC/12VDC power supply which is included. The power supply must always be used if you connect the camera to a non-POE switch. If instead you connect the camera to a POE switch there is no need to supply 12VDC power and this plug remains unused.
- POE+ - If you use POE power (along the network cable) remember to use a switch in capable of supporting POE+ (max. 30W) and not just standard POE (max 15W)

### CHECK OF CONNECTIONS

After connecting the camera, check that it performs an automatic movement rotation that certifies correct nutrition. If the camera does not make any movement check the power supply.

When you connect the network cable between the switch and the camera, check that the LEDs on the switch are correspond to the port used start flashing. If they remain off, check the cable net.

### SD CARD

Some cameras have an internal SD card slot that you can access by unscrewing it rear watertight door. You can insert an SD card to record on the camera.



### ASSEMBLING THE CAMERA

Cameras equipped with a wall bracket must be fixed to the wall with the mounting bracket provided. The connection cable comes out through the bracket. The cable entry can be provided at center of the bracket if the cable passage is bricked up. Alternatively, a cable passage is available downwards.

Cameras without brackets are mounted directly on the ceiling by screwing the disc to the ceiling metal of the base and then hooking the camera to the disk with a half turn of locking.

The housings of all cameras in this range are waterproof and can be mounted in external. However, the connections must be protected from the elements in special boxes watertight.

### MOUNTING FOR HUMAN DETECTION AND AUTOTRACKING

These cameras support human detection and autotracking. Thanks to Human Detection The camera can detect whether a human, not an animal or a person object, moves in the frame. With autotracking the camera, in addition to detecting the person, follows their movements.

To make the best use of human detection, the camera must be installed keeping in Consider the following graph. Please note that the camera cannot detect the figure human if it is too far below the camera and is shot from top to bottom.

The maximum shooting distance varies depending on the camera model and power of the camera zoom. The autotracking function does not work properly if the subject is located less 5 meters from the camera.

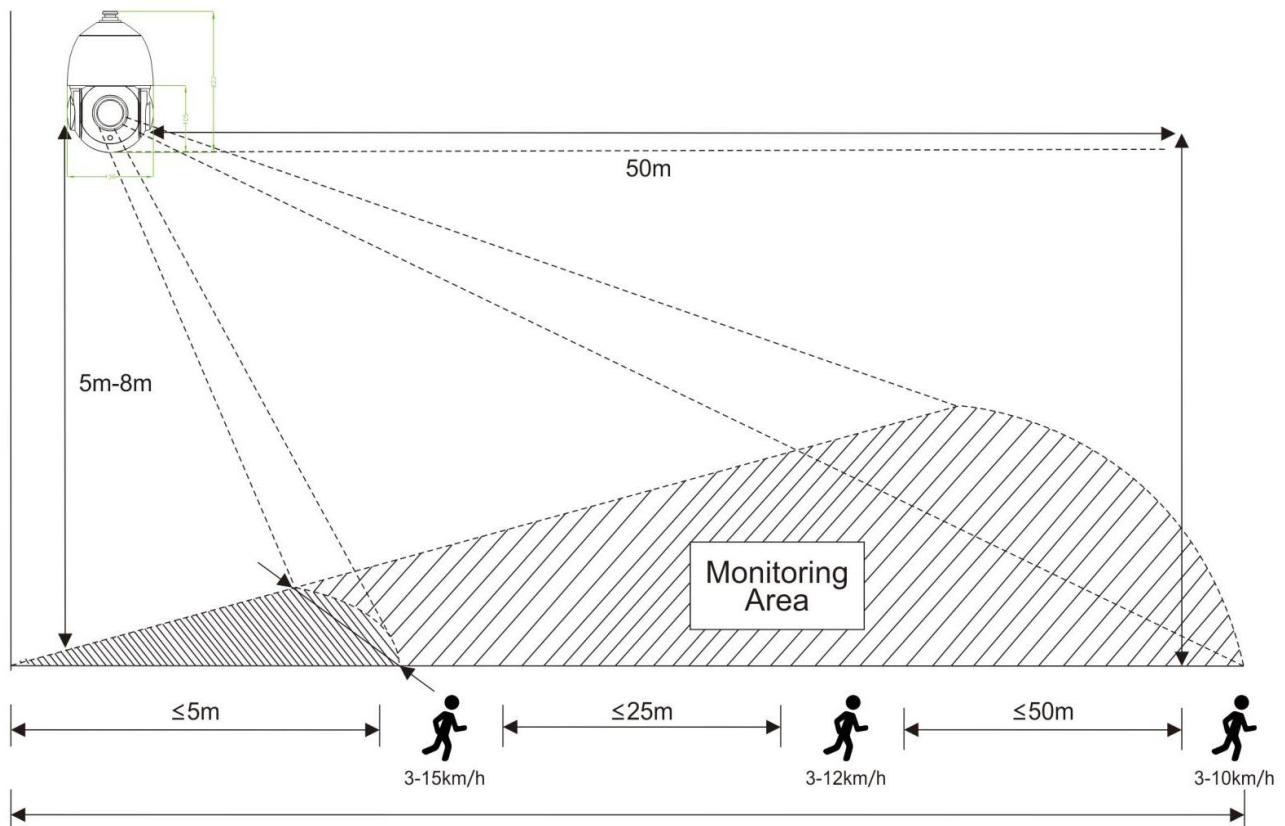
Note that if there are multiple people in the frame the camera will tend to follow the largest detection in size. It is not convenient to enable human detection in places with frequent presence of people.

# PTZ MANUAL

## RK SERIES IP CAMERAS



Page:6



# Network configuration

The network configuration of a motorized RK Series camera is done exactly as for the fixed models, using the configuration software as explained in the manual of installation of RK series IP cameras

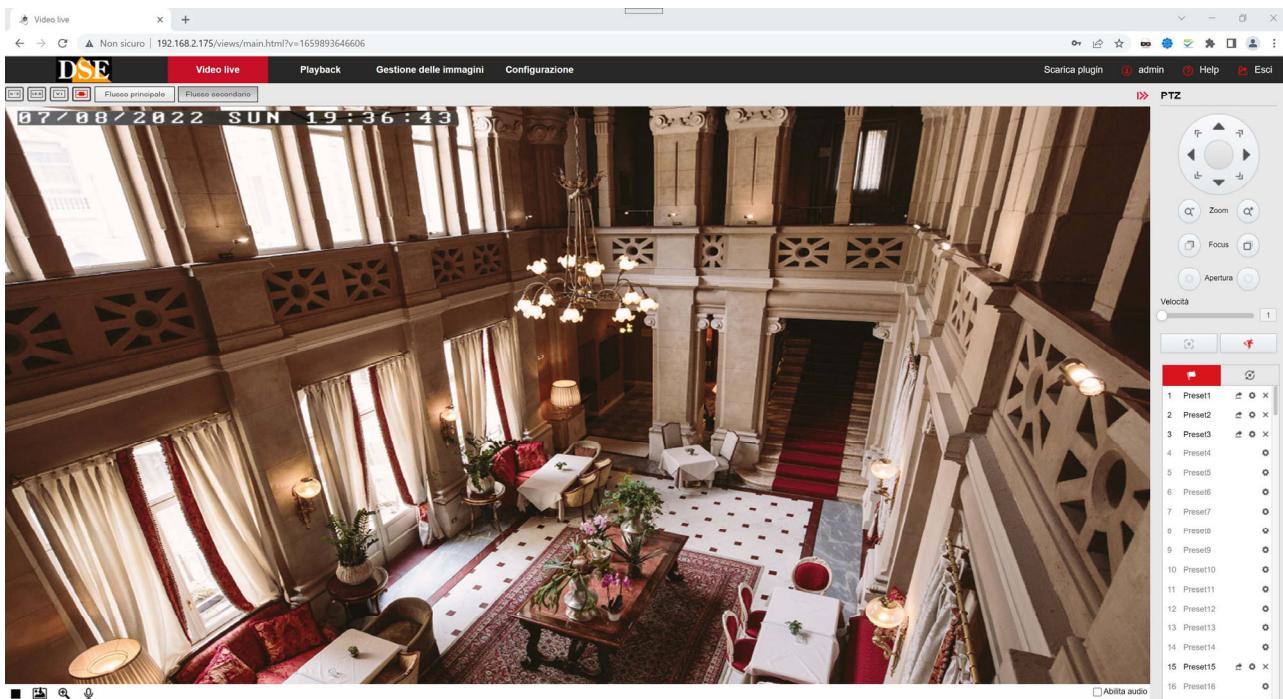
## Access with browser

Once the network parameters have been correctly set, you can log in for the first time towards the camera using the internet browser. RK Series cameras support all of them browsers. How to access with the browser is explained in the manual of installation of RK series IP cameras

# PTZ commands from browser

The installation manual explains how to access the cameras with the PC using any browser. If you have not yet logged in with your browser camera, it is best to read the installation manual and follow the instructions to connect successfully.

In this section of the manual we see the particularities of the control interface which are available only for PTZ cameras.



On the right side of the screen there is the PTZ panel for controlling the cameras motorized

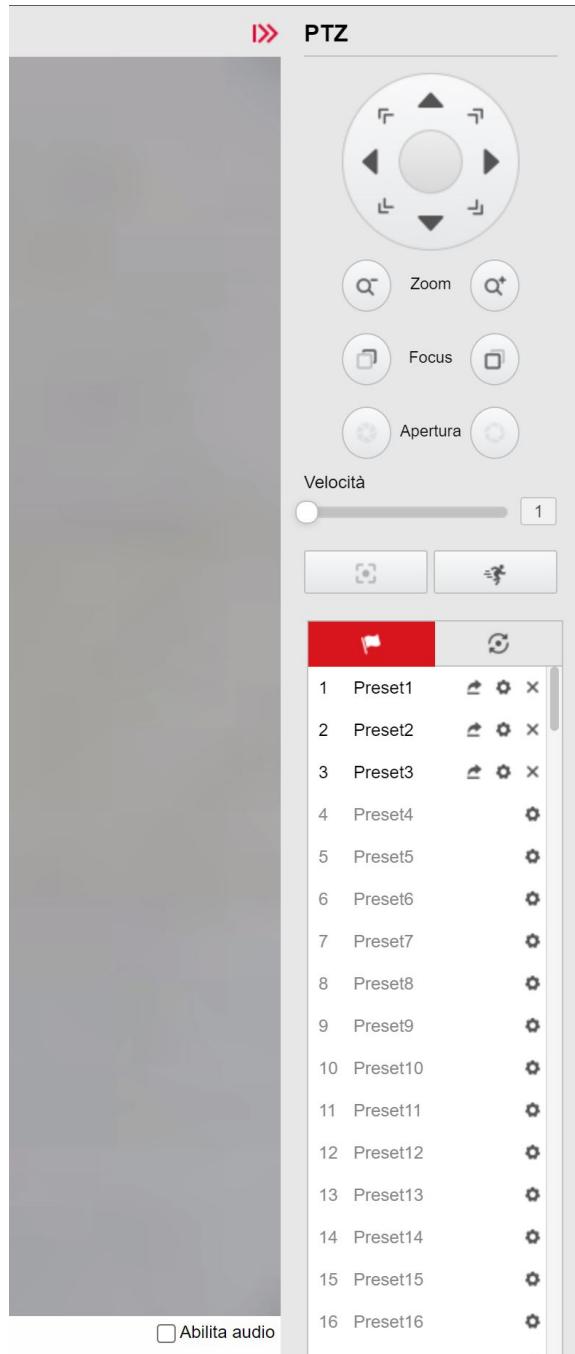
# PTZ MANUAL

## RK SERIES IP CAMERAS



Page:9

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## PTZ CONTROL

# PTZ MANUAL

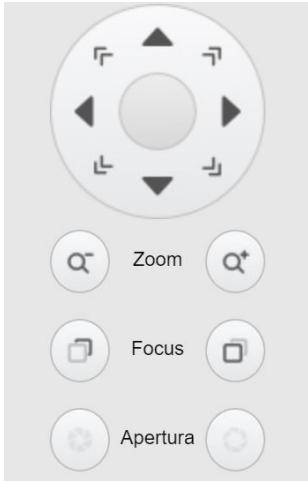
## RK SERIES IP CAMERAS



Page:10

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With the PTZ control panel you control the**MOVEMENTS** of the camera. Movements yes they control with the arrows that rotate the camera in 4 directions.



The buttons located under the arrows operate from top to bottom**ZOOM, FOCUS and OPENING** (DIAPHRAGM). Of these parameters, the zoom can always be controlled while FOCUS E APERTURE may not be active if the camera settings include the automatic functionality.

The**SPEED CURSOR**allows you to adjust the rotation speed of the camera. It is best to place it on high values in the wide-angle view to move quickly the framing is at low values in movements with strong zoom.



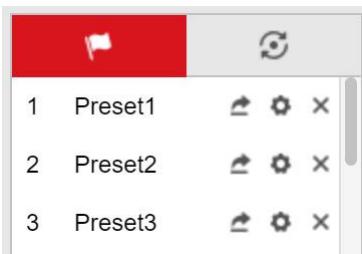
Below the speed slider are two buttons. The button on the left, One Key Focus, is not supported by all cameras, and allows you to force focus on those shots where the autofocus does not give good results, while the button on the right activates and deactivates the function **AUTOTRACKING**if the camera is equipped with it (see below).

Like all speed dome cameras, the RK series models can also perform movements automatic.

## AUTOMATIC MOVEMENTS

For these cameras there are different types of automatic movements:

- **PRESET**-Prepositions are predefined camera positions characterized by a precise value of X/Y coordinates, zoom and focus. They can be easily recalled if necessary. The cameras manage 255 presets, 220 of which are user-programmable and the remainder are intended for special system commands.



To set a preset, position the camera as you prefer, choose the number of the preset you want to store from the list and click the gear icon.

To recall a preset, select the preset number and click the arrow icon. To delete a preset, click the X icon

- **CRUISE**-Also commonly called TOUR. This refers to the automatic movement of the camera between different presets. The cameras can manage up to 3 different cruise sequences.



The table is set up for 8 cruise sequences which can be started with the PLAY icon or eliminated with the X icon. To configure a cruise sequence click the gear icon



Use the + button to add a preset to the sequence and the dwell time in seconds. For example, the cruise above involves the sequence through presets 1,2 and 3 with a 10-second stay on each preset. You can delete presets with the trash can button and change the order of the presets with the arrows.

- **AB SCAN**–Cameras can scan horizontally between presets 1 and 2. To start scanning, call up the **presets 92**
- **360° SCAN**–The cameras can perform 360° continuous horizontal rotation. To start the 360° scan, call the**preset 39 or 99**

## SYSTEM PRESETS

For RK motorized cameras there are some special presets reserved which, instead of recalling a pre-positioning, are used to perform particular functions. Here is the list of system presets.

PRESET	FUNCTION
33	ROTATES THE CAMERA 180° HORIZONTALLY
34	FACTORY RESET ALL PTZ OSD MENU OPTIONS (95)
35	ACTIVATE WINDSHIELD WIPER (IF PRESENT)
36	WINDSCREEN WIPER STOP
38 - 98	START CRUISE 1
39 - 99	START 360° HORIZONTAL SCAN
40	ACTIVATE AUTOTRACKING
41	DISABLE AUTOTRACKING
81	SET AUTOMATIC DAY/NIGHT SWITCH (B/W-COLOUR)

82	SET DAY/NIGHT TO B/W
83	SET DAY/NIGHT ON COLORS
84	MAX. IR FORCE POWER FOR LONG DISTANCE
85	MIN. IR FORCE POWER FOR SHORT DISTANCES
92	START SCAN BETWEEN PRESETS 1-2 (AB SCAN)
94	CLOSE CAMERA SETUP OSD MENU
95	OPEN CAMERA SETUP OSD MENU
96	START CRUISE 3
97	START CRUISE 2
109	SHOW ZOOM LEVEL OVERLAY
110	HIDE OVERLAY ZOOM LEVEL
111 -222	FORCE FOCUS (IF SUPPORTED)
223	FORCE FOCUS TO A SINGLE ZOOM LEVEL (IF SUPPORTED)

## PARK/HOME LOCATION

In RK motorized cameras you can configure a main position to which the camera will automatically move after a certain time without operator commands or in the event of a restart. The PARK/HOME function is set in the camera's OSD menu (see later in the manual) under the DOME - PARKING ACTION item.

## STARTUP ACTION - POWER ON

In RK motorized cameras you can configure a certain action that the camera will automatically perform when started, for example recalling a preset or a cruise, or a 360° horizontal scan or AB SCAN. This action is set in the camera's OSD menu (see later in the manual) under the DOME - ADVANCED item.

## AUTOTRACKING

Some cameras support the autotracking function which allows you to follow an intruder in his movements. If you activate autotracking, the camera will automatically move and zoom in order to follow the movements of a person who enters the field of view. You can activate and deactivate autotracking with the button in the browser or by calling up presets 40 (ON) and 41 (OFF).



To activate autotracking, you do not need to set up intelligent human detection in the alarm section, because it is an independent function.

To test autotracking you can have a person move in the framed area, at a minimum distance of 5 meters. The camera must show a green triangle above the detected figure and follow the movements of the target.

**NOTE ON RESOURCES** - The autotracking function requires a lot of resources from the camera chip, which is why it may fail to work if other very heavy functions, such as WDR or H265+, are active at the same time

If the camera does not detect the person and does not follow him, even though the autotracking icon is active (see above), you must perform the **restore factory parameters** of the camera, to free up camera resources, then, without setting anything else, press the autotracking button in the browser and test the detection.

## AUTOFOCUS

PTZ cameras are equipped with autofocus to automatically focus on the subject in any zoom condition. In addition to autofocus it is possible, if necessary, to manually change the focus with the Focus button.

In models equipped with a strong zoom it may be necessary to calibrate the autofocus with the calibration button. This is a necessary operation if you notice that the autofocus is unable to focus correctly beyond a certain zoom level.

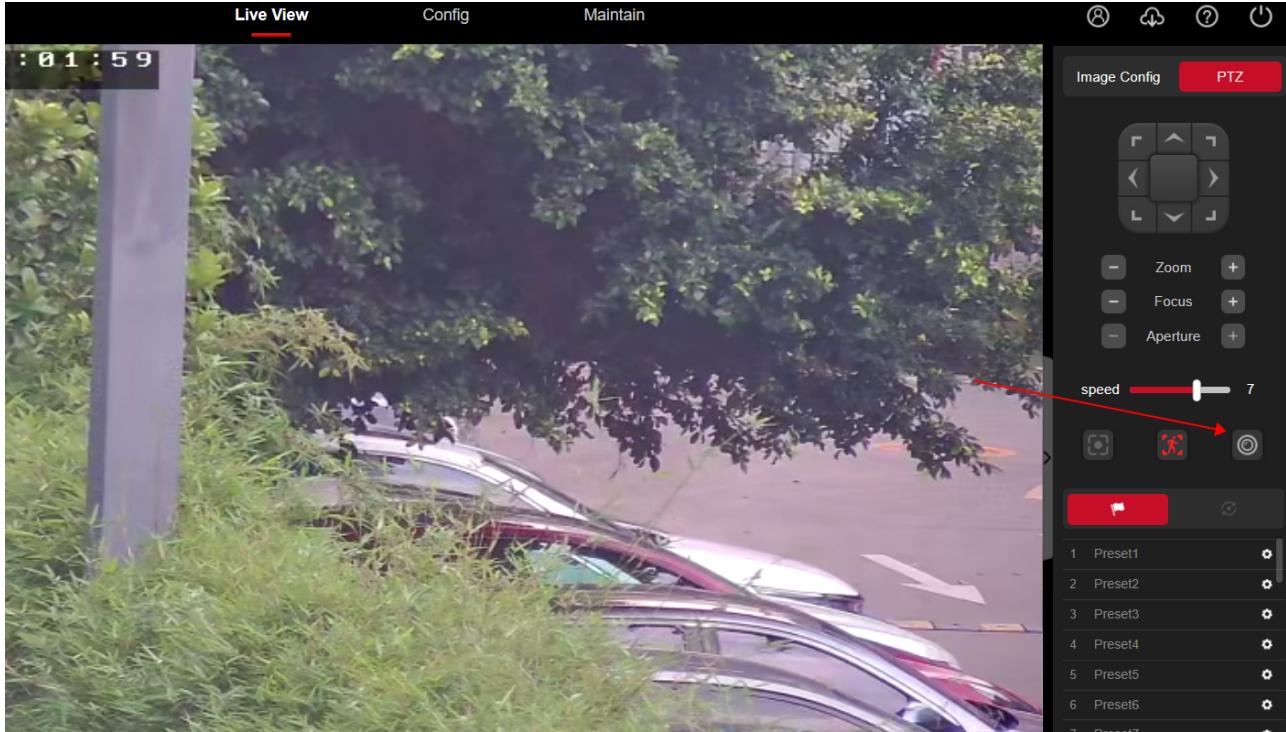
To calibrate autofocus, bring the camera to maximum zoom, framing a distant object and then press the calibration button in the browser

# PTZ MANUAL

## RK SERIES IP CAMERAS



Page:15



If the camera loses autofocus calibration over time it may be worth it **reset the PTZ module** by executing this sequence of commands:

- 1 – Recall preset 111

- 2 – Call up preset 222 immediately afterwards

# Advanced setup OSD menu

Recalling PRESET 95 opens the camera configuration menu that appears in overlay and allows you to operate all the advanced camera settings.

You navigate to the menu using the direction arrows.



SYSTEM – Information about the camera

DOME – PTZ movement settings

CAMERA – Camera settings

DISPLAY - Overlay settings

RESET – Restore factory settings

EXIT – Closes the OSD menu

### SYSTEM MENU

This section contains information about the camera module

# PTZ MANUAL

## RK SERIES IP CAMERAS



Page:17

```
MFG
CAMERA SONY-9600-1
PROTOCOL PELCO D-P
DOME ID 001
COMM 9600-N-8-1
VERSION CS84V211129
- EXIT
```

### SUN MENU

```
-<IR DISPLAY>
<GUARD TOURS>
<A-B SCAN>
<PAN SCAN>
<PARK ACTION>
<PRIVACY ZONE>
<ADVANCED>
EXIT
```

IR DISPLAY – Allows you to view advanced parameters on the status of the IR illuminator real time

GUARD TOURS – Set CRUISE 1-2-3 with dwell time and travel speed.

This programming can also be performed from the browser as described above.

AB SCAN – Sets the scan between 2 presets, also called AB scan which can be started via i system presets. Here you can program the two presets that scan between (factory 1-2), the time spent on each preset and the movement speed.

PAN SCAN – Sets the speed of the 360° horizontal panning scan that can be done activate with system presets

PARK ACTION – Sets the home position of the camera (HOME) where it will return automatically in the absence of operator commands. You can define the location and time of absence of commands. Return to the Home position is disabled by default.

PRIVACY ZONE – Not supported

ADVANCED – Here you configure some additional functions of the motorized camera:

# PTZ MANUAL

## RK SERIES IP CAMERAS



Page:18

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```
- PWR ON ACT AB SCAN
  RATIO SPEED ON
  AUTO FLIP ON
<OTHERS>
  EXIT
```

POWER ON ACT - Program the action to be performed automatically when the camera starts.

You can choose preset, cruise, AB scan and 360° scan, enable speed linked to zoom and autoflip

RATIO SPEED – This option automatically adjusts the camera speed to the zoom. With high zoom the movement speed automatically reduces. From the factory this option is enabled

AUTO FLIP – This option makes sure that when moving vertically, once you arrive at 90° vertical the camera automatically rotates 180° so you can allow you to continue vertical movement beyond 90° without flipping the image. From factory this option is enabled

## ROOM MENU

```
- CAM AUTO
  ZOOM SPEED QUICK
  DIGITAL ZOOM OFF
  FOCUS AUTO
  IRIS AUTO
  BLC OFF
  FREEZE OFF
  EXIT
```

ZOOM SPEED – Set slow or fast zoom speed

DIGITAL ZOOM – Enables digital zoom in addition to the optical zoom of the lens

FOCUS – Set automatic or manual focus

IRIS – Set automatic or manual iris

BLC – Enable BLC to compensate for backlit shots

FREEZE – Freezes the image

# PTZ MANUAL

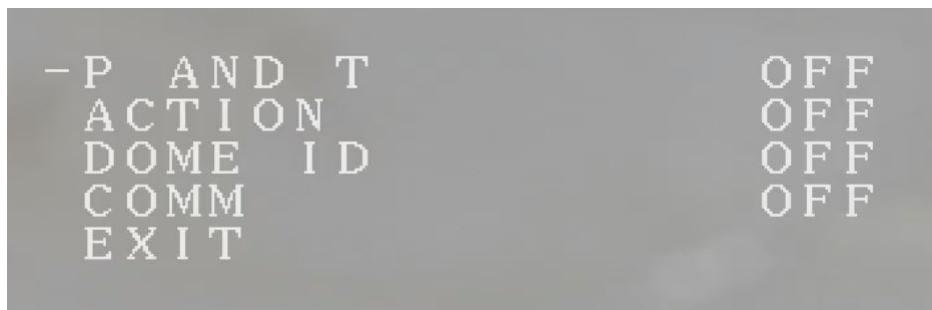
## RK SERIES IP CAMERAS



Page:19

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### DISPLAY MENU



In this section you set the data to be shown in overlay. You can show the following data:

P AND T – Shows Pan and Tilt coordinates

DOME ID – Shows the camera ID

COMM – Not used

Note that the zoom level overlay is set via system presets.

### RESET MENU



SOME RESTART – Restarts the camera

SYS DATA – Restores factory system settings

CAM DATA – Restores factory camera settings

PRESET – Deletes all user-stored presets