

**Product description**

RE-TCC7 it is a high performance camera for applications

require the highest quality CCTV that video. It has perspective integrated motorized with autofocus which can be remotely controlled



through a traditional console command in voltage or via serial RS485.

**Main features**

- SONY CCD ExView high resolution 520 TVL Zoom 220x. Optical 22x + 10x
- digital zoom Focal length 3.9 to 85 mm Autofocus
- Zoom control possible via rear keyboard, traditional console with 12VDC control and RS485 console PelcoD Protocol in 2400.

Possibility of Setting the zoom to a level default that the camera will keep even after power failure. E 'can use the camera as if he had fixed optical zooming only for the focal adjustment, without remote control.

- Minimum Illumination 0.005 Lux
- function day / night to night vision B / W and compatibility with IR illuminators

Function DSS (Digital Slow Shutter). It allows viewing with minimal lighting, without the use of IR illuminators. This technology is to hold in memory the video frame and condense them into a single frame. The refresh time of the image decreases but increases the resilience with minimum illumination.

ICR function (Infrared Cutoff Removable). The IR filter which is necessary for the operation of the color CCD is mechanically removed in the dark. In this way, the camera is more sensitive infrared lighting

and, unlike the cheaper day / night cameras, the colors are faithful even with little natural light.

- Star Light Function.
- vertical and horizontal Mirror function for rollover image in reverse shots.
- Star Light Function for greater sensitivity to low brightness

OSD (On Screen Display), via programming screen MENU controllable with rear buttons.

Titler to overlay the camera name

**Connections and controls**

**BNC video output - Top right**

It connects the video cable that connects to monitor or management devices typically through RG59 type coaxial cable and BNC connector.



**Clamps DC12V-GND - Need**

connect a 12VDC power supply stabilized by at least 500 mA, as the RE-AL4S model. IF the power supply is provided with a cylindrical pin it is necessary to cut and separate the conductors 2 +/- . The positive, as a rule recognizable by the cable marked with dashed lines, it should be connected to terminal 12VDC, the negative to the GND terminal. power

D.C. allows install the cameras without protection (request if the power supply is 220V), as well as to power the camera with a battery in case of blackouts. Attention to use STABILIZED feeders that provide 12V in any load condition. The use of

a different supply voltage from 12VDC can generate video disorders and in the worst cases damage the camera.

Beware extension power cables are too long or small section, that could to introduce excessive voltage drop.

**Clamp Zoom - Used to**

controlling the zoom camera via the application of a 12VDC voltage, as in the case of the use of consoles the



**control of motorized lenses, such as RE-CZ2. By applying 12VDC on ZOOM is NEGATIVE**

on COM the zoom moves to the TELE position. By applying 12VDC

NEGATIVE on ZOOM the zoom moves to the WIDE position.

Focus Terminal - It is used to adjust the focus of the camera's focus by applying a 12VDC voltage, as in the case of console use for the control of motorized goals, such as RE-CZ2. For this application must connect 12VDC on FOCUS is

NEGATIVE on COM or reverse the polarity to move the focus forward or backward.

Terminal MENU - It is used to enter the MENU of the camera to an external device via the application of a 12VDC voltage, as in the case of a console for use

motorized, such as RE-CZ2. For this application must connect the 12VDC on MENU is NEGATIVE on

COM. Upon application of the voltage is shown on the screen the camera programming menu and it is possible to choose the options by acting on the ZOOM commands and previous FOCUS.

Terminal COM - To be used as explained in the previous sections.

485 / A + B - Here you can connect a device control PTZ via RS485 serial line as a console for dome camera or a VCR

command to speed dome. In this way it will be possible control the zoom



camera by the recording equipment or by software. Connection is made using a twisted pair cable and connecting with RS485A + A + and B- with RS485B-

The protocol communication to be used is the common Pelco D 2400 bds. The camera address (default: 001) is set in the program as described below.

Control buttons - The TELE / WIDE buttons are used to manually operate the ZOOM.

The NEAR and FAR buttons manually change the focus. Pressing the middle button will appear superimposed on the camera setup MENU. hen the configuration is meni screen you will be using the TELE and WIDE buttons to move through the options, the KEY TO ENTER function to confirm data or select an option,



NEAR KEY with EXIT function for abandon / leave.

Led ON / OFF - The camera is equipped with a red LED rear that signals the presence of applied power.

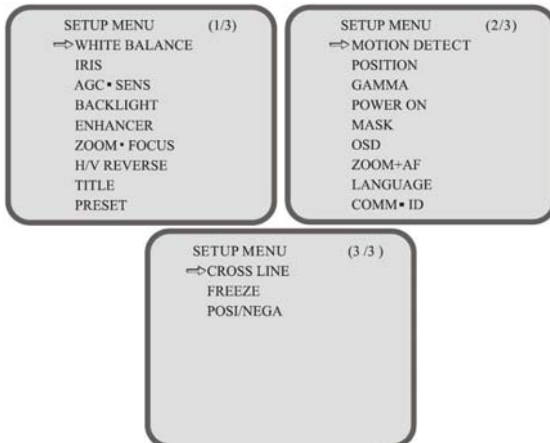
fixing - The camera is provided without bracket Fixing that must be purchased separately. The thread for the bracket is formed on a removable block which can be fixed both below the camera both above for ceiling mounting

## Camera Configuration

Pressing the MENU button to display menu

configuration that is composed of several items that can be selected with the UP / DOWN and ENTER keys. If you control the camera from a remote keypad you can be accessed by calling the menu **PRESET: 95**.

The menu consists of 3 pages.



We are described below one by one all the programming entries

### White Balance

In this section there are the color options B / N and the white balance, an important function to make the white color of the image always such in any type of lighting.

○ COLOR - 4 programmable options: OFF = black / white image, ON = color image, AUTO = image, usually color, switches to B / W automatically if there is insufficient light (DAY / NIGHT function). EXT = Not used

○ WB - White Balance. The camera offers two options Balance: ATW and AWB. Selecting ATW you enable automatic balancing AUTO TRACKING, recommended for most applications, which by monitoring the continuously balancing provides the best fidelity possible white. Selecting AWB instead enables the conventional automatic balancing that against offers for a reaction rate higher than the change of the type of lighting.

Whether for ATW AWB option that you can adjust the balance level from red to blue

○ GAIN - Gain adjustment separate color for RY (red) and BY (blue).

### Iris

In this section there are the options for the iris control. E 'can set the auto iris function (Parameters PEAK and ALC) or the electronic iris (AES).

○ PEAK - This option allows to adjust the responsiveness of the auto iris function (automatic aperture). If the option is left OFF the auto iris function based on the average brightness of the image (AVERAGE). Activating the peak option instead of the iris is regularly scheduled basis to highlight areas based on the level control that can be set. The adjustment is effective in the case of images with a lot of contrast composed of dark areas to other more bright.

○ ALC (Automatic Light Compensation) Setting this parameter to AUTO mode activates the dell'Autoiris functionality and you can adjust the level. The lens iris opens and closes depending on the ambient light,

Alternatively, it is possible to set an opening of the fixed diaphragm (FIX) and then work with the electronic iris (AES) below.

○ AES - E ' the electronic shutter speed (Shutter). E 'possible to make it act in automatic mode, with automatic level control, or set a fixed electronic shutter speed from 1/100 sec. to 1/10000 sec.

CAUTION: ALC and AES are alternative, as in a separate optical cameras. If you want to use the auto iris diaphragm (ALC = AUTO) automatically the AES parameter will be compulsorily fixed. If instead you want to use the electronic iris (AES = AUTO), the iris will be fixed. The Convenience In dell'autoiris or the AES depends on the type of lighting.

### AGC Sens

In this section there are the options related to the automatic gain control (AGC), which optimizes the vision in low light.

○ AGC - Sets the automatic gain control level. Most AGC will mean more brightness in dim light, but also more noise in the image due to amplification of the signal. 9 levels available, from 0 to 24 dB.

○ SENS - Sets the Digital Slow Shutter function (DDS), which allows to maximize the yield with minimum brightness condensing more frames into a single image and then increasing in a drastic way the brightness of an image even almost dark. You can adjust 9 levels of integration from 0 frames to 36 frames. Increasing the frame the camera integration level will reduce the refresh time of the image but will increase the resilience with minimum brightness.

### Backlight

In this section you set the parameters related to the backlight compensation (BLC) function useful in case of recovery of dark subjects on background is very bright, as it might be, for example, a customer who walks into a store with behind an exterior very bright.

○ AREA - Here it is possible to set the image area on which it will operate the backlight compensation, ie the area where the image will be present to highlight the subject compared to the background. The camera, regardless of background brightness will try to optimize the viewing area selected. The yield accurate adjustment by the presence of 48 selectable quadrants. The BLC area adjustment lets you use the backlight compensation even with subjects that are not found in the middle of the recovery.

○ SENS - Set level of compensation.

The higher the level the more it will improve the vision of the subject and penalized the vision of the bright background.

### Enhancer

Here it is possible to increase the horizontal compensation gain (H) and vertical (V)

### Zoom-Focus

In this section there are the lens controls

○ DIGITAL ZOOM - The camera has an optical zoom of 22x (up to 82.8 mm focal length) to which you can add an additional digital zoom up to 10x. Here you select the maximum value of digital zoom 2x to 10x.

○ ZOOM SPEED - Zoom Movement Speed FOCUS SPEED - Speed of movement of the focus.



- ZOOM WIDE / TELE - Drive from the zoom menu FOCUS - You set a value set manual
- focus or autofocus is enabled (AUTO).

### H / V Reverse

Here you can flip the image horizontally (H. REVERSE), MIRROR function, or in the vertical direction (V. REVERSE).

### title

E 'can type a description that will be shown in overlay image of the camera.

By selecting UP / DOWN to select the position of the insertion in the upper or lower left.

### Preset

There are 3 options

- PRESET - Setting it to ON will ripristano the camera's factory settings
- INITIAL - Setting it to OFF it is possible to inhibit the lens control
- PHASE - Not used

### Motion Detection

The camera allows you to report any changes in the image resulting from an intrusion. Upon the occurrence of the intrusion

will appear there written MOTION in overlay for the whole duration of the alarm (enable the display in the OSD section)

- ON / OFF - enables / disables the detection of the movement AREA - allows you to select the area in which the detection is carried out. The image will appear divided into 64 boxes which can be individually enabled or disabled in the survey.
- TIME - indicates the alarm duration time 10/30/60 seconds
- SENS - adjusts the detection sensitivity to avoid false alarms from small movements.

The zoom does not generate activation for motion detection alarm.

During the motion detection alarm can not be combined other alarm actions in addition to the appearance of the MOTION written overlay

### Position

- ALARM - FREEZE Not used - Not used
- POSITION
- - IS' possible setting up 64

Preset zoom you can recall at will. It must indicate the preset number (1..64) and then set the Zoom and Focus parameters.

**NOTE:** The pre-placements are only called up from the setup menu, you can not set either, nor recall the pre-positioning via the RS485 serial line, and it is not possibile tie them to the Motion Detection function. The pre-vegono placements used by the camera especially for the setting of the zoom position to be taken up (see POWER ON)

### Range

And 'possible to set two levels of gamma correction 0.45 (TYPE A) and 1.0 (TYPE B)

### Power ON

Here there are the options to be performed when the camera.

- BLUE BACK - ON Select to show a blue background during the entire process of the camera start-up.

Leaving it to OFF will instantly be shown the actual shooting.

- POSITION - E 'can set this parameter to ON, to make sure that the camera back to its preferential zoom position after a power failure. It should indicate the position number (1 ... 64) that you want, and that they will be set in the POSITION section. At every start the camera will return to this position and not on vision at maximum wide angle factory. This feature is very important if you are using the camera without remote control the zoom and you want it to be always kept a certain zoom level even in case of blackouts.

### Mask

This section serves to mask viewing zones, usually to protect privacy. E 'can set 4 mask areas that you can associate with pleasure to

64 pre-placement. To the call of pre-positioning will be automatically obscured the chosen area.

- POSITION - Select the pre-positioning (1..64) to associate the masking. In general it is enough to work on the Pre-positioning 1, which will leave the output of the active menu. It has also carefully select the same preset 1 in the boot options (POWER ON), described in the previous paragraph.
- MASK - Choose the mask number (1..4) OFF / ON - Turn on or off the mask in the pre-set position
- H-Start / End-H / V-Start / V-End - Coordinates that delimit the mask area
- CONNECT - This option should be enabled so that the masked area is maintained as such even by operating the zoom manually. The mask will vary in size depending on to keep always masked selected zoom level the area to be protected.

### OSD (On Screen Display)

This section allows you to set options written over video

- POSITION - Enable overlay in the pre-active position at that time video.
- MOTION - MOTION Enable stamping written for the entire duration of a generated by the motion detection alarm.
- ZOOM - Enable superimpose ZOOM level

### Zoom + AF

This is the default setup options Auto Focus (AF)

- ZOOM + AF - ON / OFF enables or disables the automatic autofocus combined with the zoom
- AF SLEEP - Enabling this option autofocus stops working after 5 minutes image without changes to resume only if there are significant changes of the recorded picture.

### Language

Not used. Available only in English menu.

### Comm ID

If you are using the camera control via RS485 serial line utlizzando a control console for a dome camera or a VCR, is set

the camera address (1..239) with which it will be recognized by the control unit through the serial line The MODE option is not used.

**Cross line**

E 'can enable the overlay of a division into 4 quadrants to be used as a reference

**Freeze**

And 'possible, bringing this command ON, stop the captured image will be "frozen" on the video until the disabling

this command. In the section

POSITION / ALARM is available a similar FREEZE function which is, however, automatically activates in the event of an alarm.

**Posi / Nega**

E 'can see the image in negative

**Main technical data**

	RE-TCC7
Camera Type	hard-wired
Colors / white / black	color day night function
video standards	PAL 2: 1 interlace
Type CCD sensor	Sony Ex View TM
CCD Size	1/4 "
Number of pixels in the CCD	752 (L) x582 (H)
horizontal Resolution	With 520 TV lines.
Video Signal Process	Digital - DSP
Video Signal Synchronization	internal
Minimum required illumination for shooting	0,005 Lux (F1.2)
gamma correction	0.45 / 1
Signal / noise ratio (S / N ratio)	Over 48 dB
Automatic Gain Control (AGC)	Yes (programmable level up to 24 dB)
Auto white balance (AWB)	Yes (ATW, AWB, Manual)
Automatic electronic shutter	Automatic adjustable or fixed from 1/50 ... 1 / 10,000 s.
iris diaphragm	You - with level control and peak
Compensation against the light (BLC)	Yes - level and adjustable compensation area (48 quadrants)
Day / Night function (color day / night bn)	Yes
infrared lighting compatible	850 nm
video Output	1V pp composite video 75 Ohms
audio Output	-
built-in ambient microphone	No
the camera power supply	DC 12V
Power consumption	120mA
Power supply 230VAC / 12VDC included	No
Support bracket included	No
Target	Built focal variable 3.8 ... 85.8 mm
optical Zoom	22x (adjustable speed)
digital zoom	10x (adjustable speed)
Autofocus	Yes (adjustable speed)
Digital Slow Shutter (DSS) for low brightness	Yes (adjustable Integration of up to 36 frames)
ICR function (removable IR cut filter)	Yes
Zoom Local control	Push-button rear
Remote control of voltage zoom	Command 12VDC voltage with reverse polarity
Remote control of zoom via serial	BUS RS485 Protocol Pelco D 2400 bps
Restore zoom position in case of power failure	It - Programmable
MIRROR function for image reversal	Horizontal Vertical
overlay	Camera name, running Preset, Zoom, Motion
MASK function for privacy protection	4 programmable masks with automatic sizing in Zoom function
Motion detection	It - Display only the written screen MOTION.
Operating temperature	- 10 ° ... + 50 ° C
External dimensions (mm.)	57 (L) x65 (H) x120 (P)
Weight	600 gr.

