



Video surveillance with SANTEC cameras of the VTC-8000 series

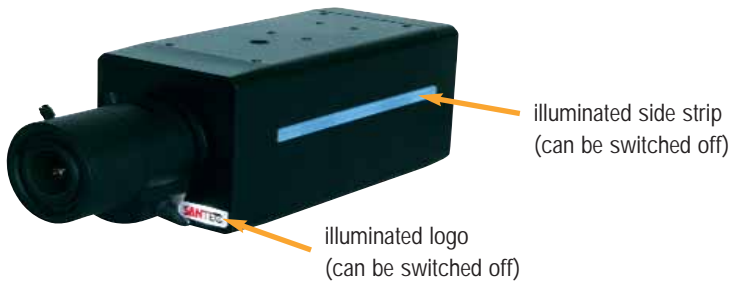
## The camera series for highest demands



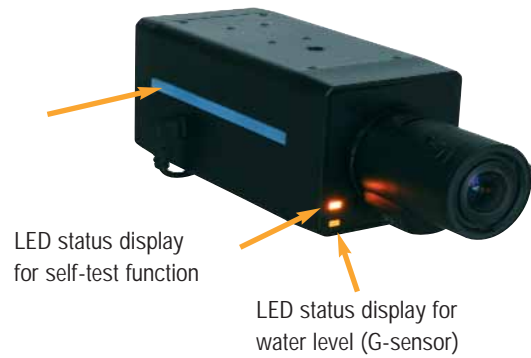
The SANTEC cameras of the VTC-8000 series are characterised by innovative technology and are ideal for demanding applications.

- High resolution of up to 700 TVL (black/white) and 580 TVL (colour)
- High sensitivity for brilliant pictures, even under low light conditions
- Very good backlight compensation by BLC/HLC or BLC/WDR
- High S/N ratio of >52 dB for noise-free pictures
- Digital Noise Reduction (DNR)
- Digital Image Stabilisation (DIS) against jittering
- 8 programmable privacy zones for privacy protection
- 8 programmable zones for motion detection.  
Output as display in video picture and via switch contact.
- Vertical and horizontal mirroring
- G-sensor as sabotage/position protection
- Electronic water level as optical tool for camera installation
- External camera setting via RS-485 connections
- Convenient camera adjustments via clear, multi-language OSD menu
- Self-test function via LED
- Also available as dummy camera (DUM-8100)

# Design and Features



Lens not included in the delivery  
(optionally available).



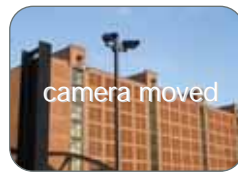
## Innovative features

The cameras provide a technical innovation: the new built-in **G-sensor**.

This sensor has two main functions:

- It detects if the camera has been moved or turned out of position after it has been installed.  
Thus the G-sensor provides a sabotage and position protection.
- It serves as an electronic water level (displayed via LED) which is an optical tool to assist the user during the installation phase of the camera.

### G-sensor: Sabotage and position protection



If the camera is moved or e.g. sabotaged by a hit, the built-in 3 G-sensor triggers an alarm. A respective note is displayed in the video picture and an output contact is activated for a defined period of time.

### What's a G-sensor?

A G-sensor (gravitation sensor) is often also referred to as accelerometer or a gravity sensor. A G-sensor detects the movements of a camera. It also reacts to vibrations, speed or pivoting. Different sensitivity levels can individually be defined for the camera.

### G-sensor: Electronic water level



The lower of the two LEDs indicates whether the camera is installed horizontally. It lights yellow, red or blue.

### Electronic water level: Description of LED display

Yellow: The camera is tilted too far right.  
Red: The camera is tilted too far left.  
Blue: The camera is positioned horizontally.

### Self-test function

The cameras are equipped with a self-test function. When the camera is connected to the supply voltage, it automatically starts a self-test and searches for the following malfunctions:

- current consumption (the camera consumed too much or too few power)
- video picture at video output is not available
- error regarding power supply and video picture



The upper of the two LEDs indicates the status of the camera. If an error is detected, the LED lights up in different colours.

### Self-test function: Description of LED display

Red: Error with power supply.  
Yellow: Error with video picture.  
Pink: Error with power supply and video.  
Blue: No errors detected.

### Wide Dynamic Range (WDR)



without WDR



with WDR

Modern DSP technology for WDR (Wide Dynamic Range) enables perfect pictures even under difficult backlight conditions.

### Digital Noise Reduction (DNR)



without DNR



with DNR

Modern DNR technology considerably enhances the picture quality, especially at night. Less noise also reduces the required storage capacity for the connected digital recorder.

### High resolution / high sensitivity



480 TVL



580 TVL

Modern DSP technology provides excellent resolution and picture quality, even under low light conditions.

### Highlight Compensation (HLC)



HLC off



HLC on

Modern highlight compensation technology delivers a lot of picture information, even under extreme backlight conditions, e.g. created by car lights. Electronic blanking is applied to highlight areas.

### Digital Image Stabilisation (DIS)



DIS off



DIS on

When the digital image stabilisation function is switched on, clear video pictures are created, even if the camera jitters.

### Privacy protection

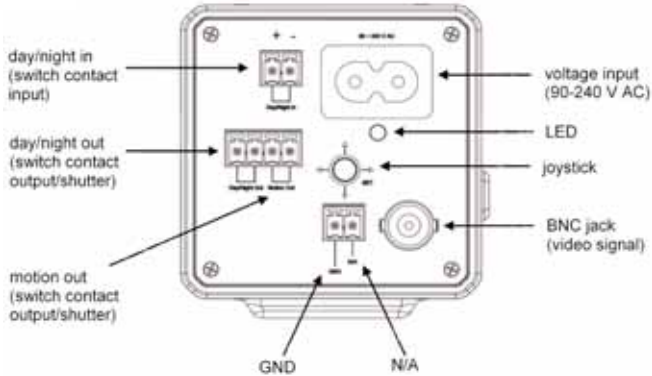


programmable privacy zones

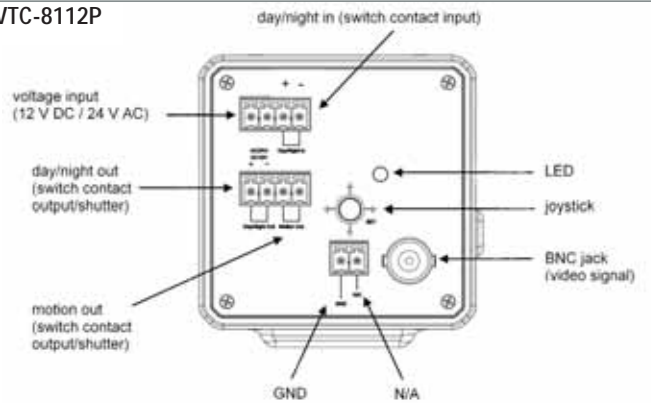
In some cases, certain areas which are detected by the camera should not or must not be displayed or recorded (e.g. car licence plates). You can define up to 8 privacy zones which are not displayed in the video picture.

## Connections at camera rear

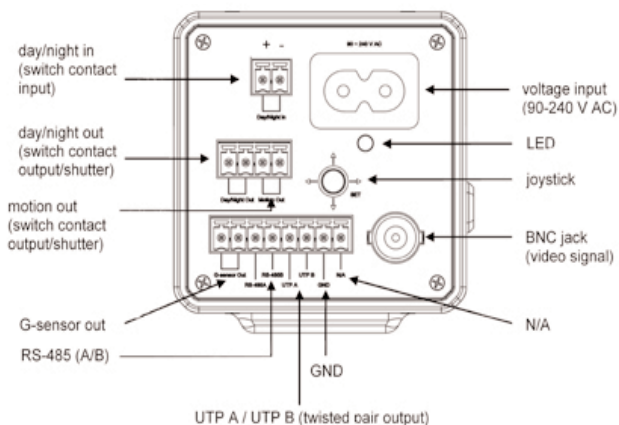
#### VTC-8100P



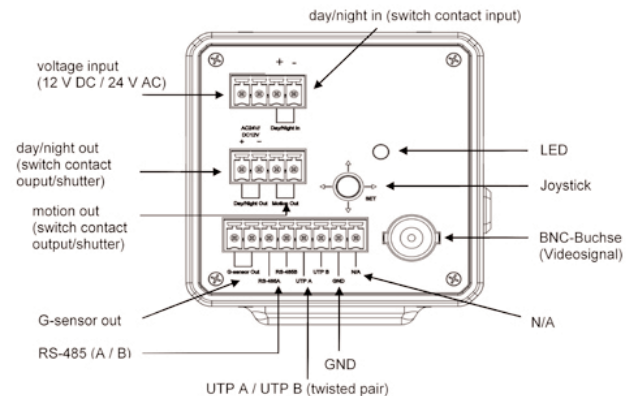
#### VTC-8112P



#### VTC-8200P and VTC-8300P



#### VTC-8212P and VTC-8312WDP



# Technical Specifications

| Model                              | VTC-8100P / VTC-8112P  | VTC-8200P / VTC-8212P                | VTC-8300WDP / VTC-8312WDP |
|------------------------------------|--|--------------------------------------|---------------------------|
| Camera type                        | day/night colour camera  |                                      | with WDR function         |
| Video norm                         | PAL  |                                      |                           |
| Sensor                             | 1/3" Sony CCD chip   |                                      |                           |
| Horizontal resolution              | 580 / 700 TVL  |                                      | 560 / 700 TVL             |
| Active pixel                       | 752 (H) x 582 (V)  |                                      |                           |
| Signal processing                  | digital (DSP)  |                                      |                           |
| Synchronisation                    | internal/LL (AC supply)  |                                      |                           |
| Lens mount                         | CS-mount   |                                      |                           |
| Sensitivity                        | 0.05 / 0.0002 lux  |                                      | 0.3 / 0.01 lux            |
| Automatic Gain Control (AGC)       | yes  |                                      |                           |
| Digital Noise Reduction (DNR)      | yes  |                                      |                           |
| S/N ratio                          | > 52 dB  |                                      |                           |
| Shutter                            | 1/50 - 1/1000000 sec   |                                      |                           |
| White balance                      | manual, AWC, outdoor, indoor, ATW  |                                      |                           |
| Backlight compensation             | BLC, HLC   |                                      | BLC, WDR                  |
| Day/night mode                     | auto, colour, black/white  |                                      |                           |
| IR cut filter                      | mechanical, automatic  |                                      |                           |
| Camera adjustment                  | multi-language OSD, via joystick   |                                      |                           |
| Lens control                       | DC, manual   |                                      |                           |
| Digital zoom                       | 10x via joystick   |                                      |                           |
| Image stabilisation                | digital  |                                      |                           |
| Mirroring                          | left / right   |                                      |                           |
| Picture flip                       | top / bottom   |                                      |                           |
| Motion detection                   | 8 zones  |                                      |                           |
| Privacy zones                      | 8 zones  |                                      |                           |
| Title display                      | up to 15 characters  |                                      |                           |
| Video output BNC                   | 1 Vpp at 75 Ohm  |                                      |                           |
| Video output UTP (twisted pair)    | -  | active transmitter, screw connection |                           |
| Switch input contacts              | 1 (day/night)  |                                      |                           |
| Switch output contacts             | 2 (motion, day/night)  | 3 (motion, day/night, G-sensor)      |                           |
| Communication                      | -  | RS-485 (Pelco D protocol)            |                           |
| Sabotage/position protection       | -  | 3 G-sensor                           |                           |
| Self-test function                 | optical display via LED  |                                      |                           |
| Housing                            | metal, black   |                                      |                           |
| Camera mounting                    | screw fix at top/bottom  |                                      |                           |
| Voltage                            | 90 - 240 V AC / 12 V DC / 24 V AC (depending on model)   |                                      |                           |
| Power consumption                  | approx. 5 watt   |                                      |                           |
| Operating temperature              | -10° to +50° C   |                                      |                           |
| Weight                             | 400 g  |                                      |                           |
| Dimensions (WxHxD)                 | 62 x 65 x 130 mm   |                                      |                           |
| Recommended accessories (optional) | lenses: 14131DN/B, 14141DN/B, 14161DN<br>wall bracket: VA-13SIK, VA-14SI<br>keyboard: KSC-3505 |                                      |                           |

Subject to technical changes without notice. Errors excepted. Illustrations may differ from the actual product.



[www.santec-video.com](http://www.santec-video.com)  
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