

**Mounting and Operating Instructions of the  
RP 500 Serie  
for mobile video surveillance**



## Foreword

**Dear Customer,**

By selecting a product of Verint Video Solutions GmbH, you have chosen a professional device that ensures the highest quality and reliability. We would like to thank you here again for putting your trust in us and ask that you read carefully the following information prior to operating the device so that you can fully enjoy all the advantages of this product.

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## General information

### Product overview

The Verint® RP 500 Series mini dome camera housings provide a reliable solution for mobile vehicles such as buses, trams or trains. The RP 500 Series has a vandalism proof dome housing providing high resolution for day and night operation, and colour or black and white cameras.

The housing has rounded edges to minimize the risk of injury to passengers. The cameras are designed to operate in very bright but also in dark places and under extreme weather conditions. The RP 500 Series meets common mobile transportation standards for Europe.

When combined with our wide range of recorders and monitors, the RP 500 Series provides a comprehensive networked digital video surveillance solution to help transit personnel protect people and property, refute false claims, and reduce frivolous lawsuits.

### Security information

- Please read these instructions carefully before you operate the device. This will avoid possible damages resulting from improper use.
- The device should only be installed by qualified professionals according to existing VDE (Association for Electrical, Electronic & Information Technologies) regulations.
- Operate the cameras exclusively using the normal service voltage indicated.
- Observe any warnings on the device.
- The camera should only be used in a dry, dust-free and non-hazardous environment.
- Never use the device for purposes others than those for which it was intended.
- The device should be repaired only by qualified professionals.
- Should liquids or hard objects enter the housing, disconnect the power supply immediately. Have the device checked by a qualified professional before you use it again (risk of electric shock).
- Operate the device only indoors.
- To avoid internal heat build-up in the device:
  - the device should not be subjected to direct sunlight
  - should have adequate distance from direct heat sources.
- For cleaning and maintaining the camera, follow the directions given in these instructions.

## General information

### Place of installation

The camera is specially designed for video surveillance in busses and trains and fulfils the required European standards for public transport.

### Scope of delivery

- High resolution vandalism-proof dome camera with fixed lens (2.1mm; 2.9mm; 3.6mm; 4.3mm; 6.0mm; 8.0mm)
- Connecting cable incl. connector
- Fixing adaptor ring
- Mounting materials
- Mounting instructions

### Accessories / additional devices

- Video cable 75 Ohm (e.g., RG-59)
- BNC connector

### Warranty

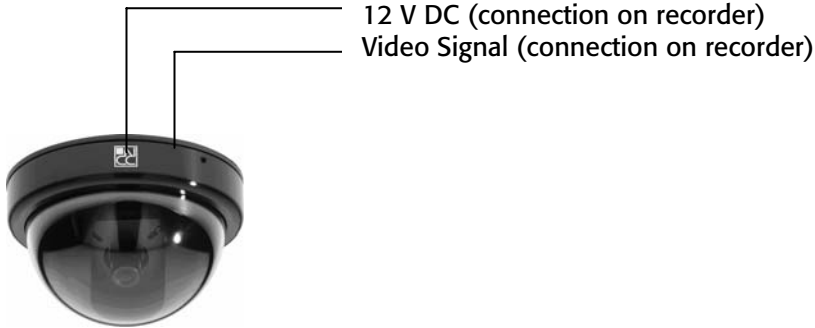
The warranty is valid for 24 months and begins on the date of delivery. Any defects must be reported within 10 working days following delivery of the product. Hidden defects must be reported immediately when they are discovered.

The warranty does not include damages to the products caused by accidents, unsuitable or improper usage, non-authorized or incorrect mounting or startup, incorrect or improper handling, damages during transport or improper maintenance. The warranty does not include costs you incur from installation or initial operation as part of a warranty claim.

In response to a warranty claim we can choose to provide a replacement or repairs within an appropriate period of time. If the defect is not successfully remedied we have the option of rescission or reduction, in case of a negligible defect of reduction only.

## Installation

### System overview



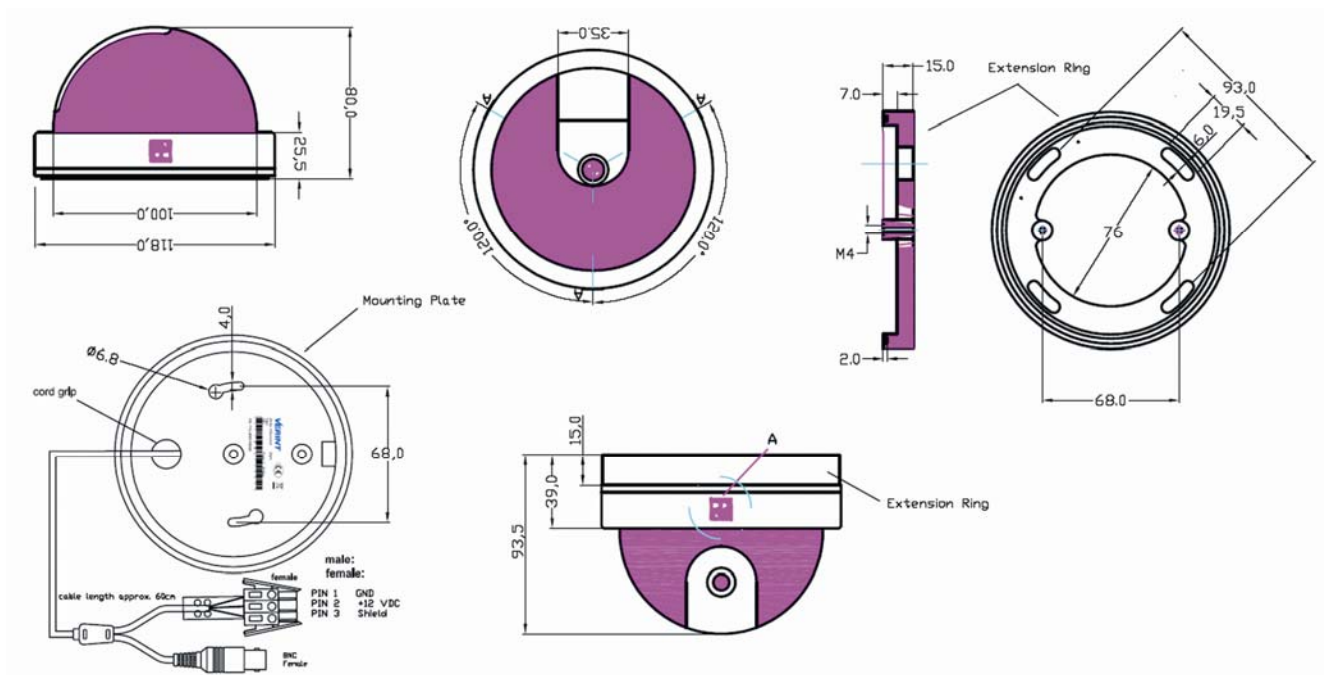
The dome camera needs a stabilised power supply of 12 V DC and has a power consumption of max. 2.0 W.

### Cable connections

It is possible to lay separate cables for all connections.

Video = coaxial cable 75 Ω, (F)BAS, 1 Vss/75 Ω  
 Power supply = Operating Voltage: 12 V DC / GND

### Detailed view



All specifications in mm!

## Installation

### Mounting

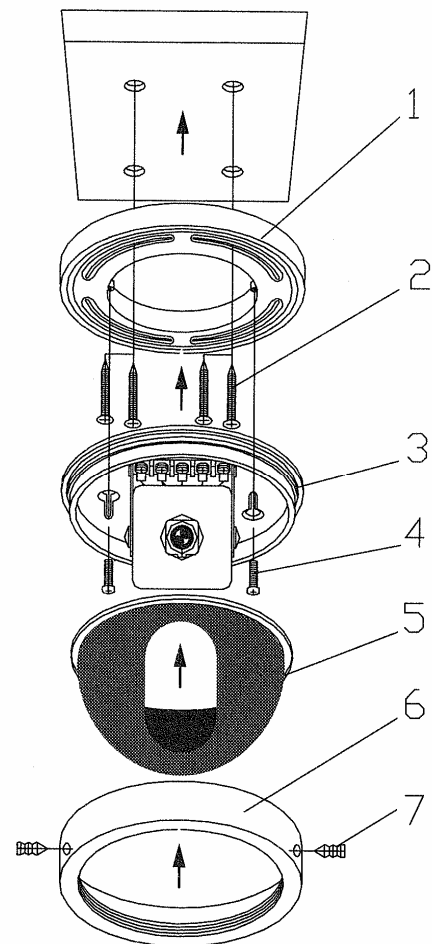
#### Information on camera mounting location

- Keep an adequate distance to direct heat sources.
- Do not point the camera towards artificial lighting, the sun, the sky or in the direction of a window. The best image quality will be achieved if both camera and lighting point to the area you want to record.
- Reduce the picture section to the essential area and install the camera as close to the object as possible.
- Avoid head lights as back light in the video picture (also caused by reflections, e.g. on window panes).

#### Mounting of camera

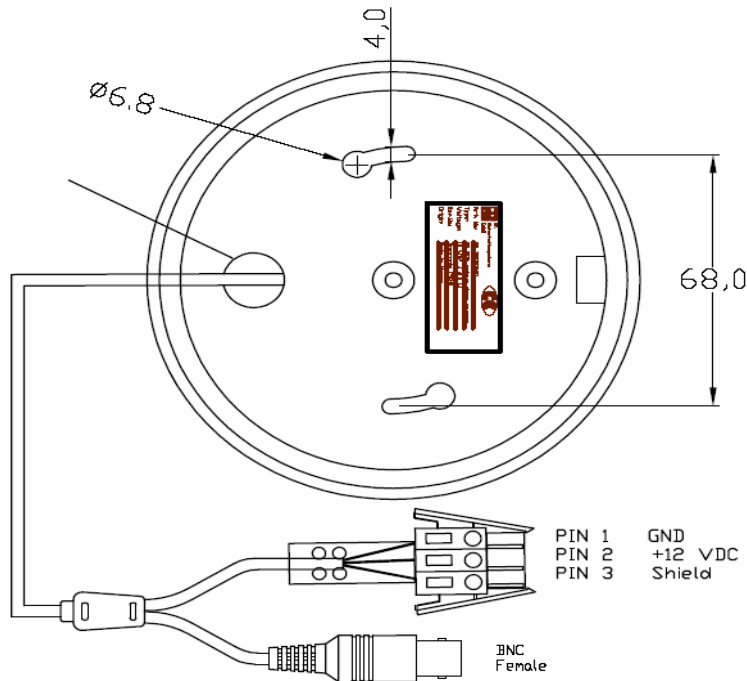
Mount the camera as shown in the drawing on an adequate surface. Use delivered materials only.

1. Fixing frame for holding ring
2. Fixing screws (4.0 x 35mm or 4.0 x 30mm)
3. Holding ring with camera unit
4. Fixing screws for holding ring Use metal eyelets included in the delivery to secure the installation
5. Acrylic glass dome (clear / black)
6. Cover frame for acrylic glass dome
7. Hexagon socket screw for tightening the cover frame



## Installation / Initial Operation

### Connecting diagram



### Settings / configuration

#### Set the angle

Remove dome and fixing frame and detach screws from the camera module. Point camera module to the correct picture section and fix screws afterwards. Attach dome with fixing ring with screws and thighten with hexagon socket screw.

#### Sharpness setting (factory setting)

Loosen the hexagon socket screw for fixing the cover frame and open the dome camera by turning the cover frame of the acrylic glass dome.

If the camera shows a blurred picture the lens focus can be readjusted. To do so, loosen the headless screw above the lens. Screw the lens in or out until the picture is in focus.

#### NOTE

You only need to adjust the lense a few millimeters. When finished tighten the headless screw.



## Appendix

### Technical Data RP 505K / RP 506K

<b>CCD Sensor</b>	1/3" Sony Super HAD Interline CCD
<b>Max. pixels (h x v)</b>	768 x 576
<b>Horizontal resolution</b>	RP 505K: 570 TV lines RP 506K: 470 TV lines
<b>Sensitivity</b>	RP 505K: 0.0075 lux on sensor / 0.15 lux with F2.0 RP 506K: 0.015 lux on sensor / 0.3 lux with F2.0
<b>TV standard</b>	PAL, 625 lines
<b>Enhancer</b>	Yes
<b>Gamma correction</b>	0.45
<b>Electronic Shutter</b>	Automatic, 1/50 - 1/100,000 sec.
<b>Signal-to-noise ratio</b>	46 dB (AGC off)
<b>AGC</b>	26 dB
<b>Synchronisation</b>	Internal
<b>Backlight</b>	Automatic
<b>Spectral response</b>	RP 505K: 380 – 660 nm RP 506K: 380 -1000 nm
<b>Smear effect</b>	0.01%
<b>Video output signal</b>	(F)BAS 1Vss / 75 Ohm, BNC RP 505K: S/W camera RP 506K: Colour camera
<b>Service voltage</b>	12V/DC (DC 8.0 – 18.0 V)
<b>Performance</b>	Max. 2 W
<b>Operating temperature</b>	-10° to +50°C
<b>Extended temperature area according to EN501155-T1</b>	-25° to +70°C
<b>Humidity</b>	90 % (not condensed)
<b>Protective system according to association German electrotechnicians (VDE)</b>	IP41, class III
<b>MTBF</b>	80,000 hours
<b>Housing shape</b>	Dome camera with clear dome
<b>Connections</b>	Screw-type terminal or connecting cable included in the delivery
<b>Weight</b>	350g 550g with fixing ring
<b>Mounting</b>	Ceiling attachment
<b>Lens</b>	2.1mm; 2.9mm; 3.6mm; 4.3mm; 6mm; 8mm
<b>Dimensions (diameter / height)</b>	109 mm / 75 mm
<b>Extended product standards</b>	EN 50155 / "e" mark EN 50121 -3-2 / DIN 5510

## Appendix

### Technical Data RP 506L

<b>CCD Sensor</b>	1/3" Sony Super HAD Interline CCD
<b>Max. pixels (h x v)</b>	768 x 576
<b>Horizontal resolution</b>	470 TV lines
<b>Sensitivity</b>	0.02 lux on sensor / 0.4 lux with F2.0
<b>TV standard</b>	PAL, 625 lines
<b>Enhancer</b>	Yes
<b>Gamma correction</b>	0.45
<b>Electronic Shutter</b>	Automatic, 1/50 -1/100,000 sec.
<b>Signal-to-noise ratio</b>	46 dB (AGC off)
<b>AGC</b>	26 dB
<b>Synchronisation</b>	Internal
<b>Backlight</b>	Automatic
<b>Spectral response</b>	380 -660 nm
<b>Smear effect</b>	0.01%
<b>Video output signal</b>	FBAS 1Vss / 75 Ohm, BNC
<b>Service voltage</b>	12V/DC (DC 8.0 – 18.0 V)
<b>Performance</b>	Max. 2 W
<b>Operating temperature</b>	-10° to +50°C
<b>Extended temperature area according to EN501155-T1</b>	-25° to +70°C
<b>Humidity</b>	90 % (not condensed)
<b>Protective system according to association German electrotechnicians (VDE)</b>	IP41, class III
<b>MTBF</b>	80,000 hours
<b>Housing shape</b>	Dome camera with clear dome
<b>Connections</b>	Screw-type terminal or connecting cable included in the delivery
<b>Weight</b>	350g 550g with fixing ring
<b>Mounting</b>	Ceiling attachment
<b>Lens</b>	2.1 mm; 2.9mm; 4.3mm; 6mm; 8mm
<b>Dimensions (diameter / height)</b>	109 mm / 75 mm
<b>Extended product standards</b>	EN 50155 "e" mark EN 50121-3-2 DIN 5510

## Appendix

### Cleaning and maintenance / servicing information

Before cleaning or servicing the camera, disconnect it from the power supply.

Clean the camera housing with a dry or slightly moist cloth (add a few drops of dishwashing liquid). Never use organic solutions such as thinners, alcohols, petroleum products etc. for cleaning.

The interior of the device should only be cleaned by customer service or by qualified professionals. To safeguard the electrical components, the interior of the device should never be cleaned with water or other liquids or be immersed in water.

The instructions should be included if giving the device to a third party.

### Error search

Error description	Cause
Camera station does not send a video signal.	<ul style="list-style-type: none"> <li>◆ Check the connection of the service voltage (12 V DC).</li> <li>◆ Check the connection of the video cable at the camera.</li> <li>◆ Check to see that your power supply is functioning (12 V DC)</li> <li>◆ Check the connections to the camera (video / voltage).</li> </ul>
The video picture is too dark	<ul style="list-style-type: none"> <li>◆ There is insufficient lighting</li> </ul>
The video picture ist out of focus.	<ul style="list-style-type: none"> <li>◆ The focus is not adjusted properly.</li> </ul>
Video picture has double images (ghosts)	<ul style="list-style-type: none"> <li>◆ Incorrect 75 <math>\Omega</math> terminating resistance</li> <li>◆ Video cable shielding is broken</li> </ul>

If there is still no change after following the help measures described above, contact Technical Support with an exact description of the error.

## Appendix

### Technical support

Should difficulties arise while installing or operating the device, we offer you technical support at +49 (0) 4321 269 81 36 or at [mobilesupport@verint.com](mailto:mobilesupport@verint.com) .

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