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CCTV

CCTV SYSTEMS

GUIDE CATALOGUE 2016

CERTIFICATED

ONVIF

bticino

CCTV

CCTV SYSTEMS

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the CCTV system

Aims

Safety of property

Allows an area to be open to the public but at the same time protected against theft in the shops, car parks and fenced areas.
The CCTV system ensures the monitoring in real or deferred time (if recorded) of one or more areas of the building.

Image capturing

The main function of a camera is to capture a scene in real time.
For example, it may be advantageous to show customers in a shop that the areas are monitored with a CCTV system displaying the images on a monitor connected directly to the camera. As well as its deterrent effect, it allows salespersons to see one or more scenes from a single point of the shop.
It can also display in real time from a remote post on a Smartphone, Tablet and PC.

Access monitoring

Monitoring accesses to the buildings or areas outside opening hours allows you to capture on video any unauthorised person and check any type of event or act of vandalism.
During building opening hours, the CCTV system helps to control accesses, detecting the presence of a person close to the exit or connecting the system to the visitor access control system.

IMAGE CAPTURING

ANALOG CAMERAS

IP CAMERAS

AHD CAMERAS

RECORDING

VIDEO RECORDER

DISPLAY & ANALYSES

MONITORING SOFTWARE

PC / TABLET

REMOTE ACCESS

SMARTPHONE

PC / TABLET

Event monitoring

When the CCTV system is connected to the other systems installed in the building or outside areas, it can display the images from the connected camera on the control monitor.

- Intrusion: recording of the moment the intrusion was detected.
- Fire: verification of the presence of fires in the detection zone.
- Technical alarm: verification of the occurrence of a technical problem.

Recording

Depending on the seriousness of the situations (or the type of building zone) to be monitored, it is a good idea to integrate the recording as well. This allows replaying the events which have occurred for better interpretation (e.g. theft in a shop).
We recommend only recording events when necessary.
For example, the recordings must cover, in addition to the programmed times, accesses to the areas as well.

Display & analyses

A software dedicated to monitoring the CCTV system on one or more stations (e.g.: check point, police office, etc.) can be installed both to access the shot of a camera in one or more video recorders or to access the video recorder recordings.

Solutions

FOR THE residential AND THE service sector

the house

AHD (Analog High Definition) kits are an efficient solution for monitoring the home. They **can be expanded to 4 cameras** which are simple and discrete, small and can be displayed remotely.

the shop

When you need to monitor a few areas: typically the outside entrance, the internal goods display areas and the cash desk. **AHD (Analog High Definition) kits** are an efficient solution. They **can be expanded to 8 cameras** which are simple and discrete, small and can be displayed remotely.

the supermarket

The need is to monitor many small and large areas inside and outside. Typically outside needs are the following: monitoring goods loading/unloading areas and car park. The internal areas are: goods display aisles, cash desk area and store.
The solution is a **project with IP TECHNOLOGY** where all the devices are controlled and monitored from a supervisory station.

the firm

The need is to monitor various small and large areas inside and outside. Typical outside needs are the following: monitoring goods loading/ unloading areas, sides of the building and car park. The internal areas are: store and goods loading/ unloading areas.
The solution is a **project with IP TECHNOLOGY** where all the devices are controlled and monitored from a switchboard position or local reception with operator during the day. Where necessary the management of several sites can be centralised remotely.

our Solutions

The CCTV offer is enlarged with:
- cameras and NVR IP H265
- AHD 1080p range
- new control software (CMS) for IP, AHD, analog and mixed systems.

IP Digital Solution

It benefits from all the advantages of the LAN network technologies. Each camera is a small computer.

ONVIF standard certificated conformity see www.onvif.org

Open Network Video Interface Forum is an organisation whose purpose is to encourage compatibility between devices used in CCTV systems, based on the IP communication protocol; particularly so that systems made by different companies can work together.

New IP cameras H265

Dome and compact with fixed and varifocal optics, top of the range 3 Mega Pixel resolution and new HEVC compression algorithm H265. HEVC improves the video quality, doubles the data compression ratio with respect to H264 and supports ultra definition at 8k and greater resolutions up to 8192×4320.
PoE power supply for simple wiring up to 100 m.

New NVR H265

Three new NVR H265 with 4, 8 and 16 channels
With PoE technology; two new NVR H265 with 16 and 32 channels.
Easy access by smartphone thanks to the BTicino P2P technology which facilitates remote connection via internet. The simple reading of a "QR code" or a numerical code avoids the complex configuration of the router.

New (CMS) "BTicino Surveillance client" control software for PC and MAC supplied with each NVR.

Safer with accessible costs with the NVR PoE: just one UPS is needed for the whole system.

bticino

TECHNOLOGY P2P

COMPLETE SOLUTION

For a CCTV system which can evolve in time in a scalable, flexible and integrated way.

THE IP OFFER ENSURES:

- Images at the highest possible resolution;
- Simple installation without power supplies for cameras (NVR with PoE).
- Accessibility and P2P remote management
- Only one UPS for all the system

AHD solution

High definition with the coaxial cable. With the AHD (Analog High Definition) solution the traditional analog limits can be exceeded offering a high-definition image quality up to 1080p (1920×1080), using the same coaxial cabling without having to configure the cameras.

Prepackaged kits

For a ready-to-use solution without sacrificing image quality.
Simple to install and expand.

COMPLETE SOLUTION

For new or already existing systems using the previously laid coaxial cable. The offer is based on a complete range of products. Compact, dome and speed dome cameras with horizontal resolution 720p or 1080p. New DVR 1080p TRIBRIDE:
- Allow mixed systems with AHD, analog and IP cameras.
- Easy access by smartphone thanks to the BTicino P2P technology which facilitates remote connection via internet. The simple reading of a "QR code" or a numerical code avoids the complex configuration of the router.
- New (CMS) "BTicino Surveillance client" control software for PC and MAC supplied with each DVR 1080p.

THE AHD OFFER ENSURES:

- High resolution images
- Accessibility and P2P remote management for the new 1080p DVR
- Simple installation as Analog

Analog solution

It is the traditional solution which can interface with the LAN networks via the DVR digital video recorders.

Prepackaged kits

They include all the products necessary for a small but complete installation. Simple to choose and install, they can be expanded to best answer the variability of the most common needs.

Device selection

Cameras, DVRs and monitors

To make a simple CCTV system, it is good practice to follow the **four phases indicated below.**

When a design must be made to satisfy stricter safety requirements, contact the reference BTicino technical salesperson.

Phase 1

Definition of the number of areas to monitor

Carry out an on-site check with the customer using a map of the area to be monitored.

Phase 2

Definition of the result expected for each area to be monitored

For each area to be monitored define the expected result with the customer. In most cases it falls in one of these three cases: identification, recognition or detection of an intrusion.

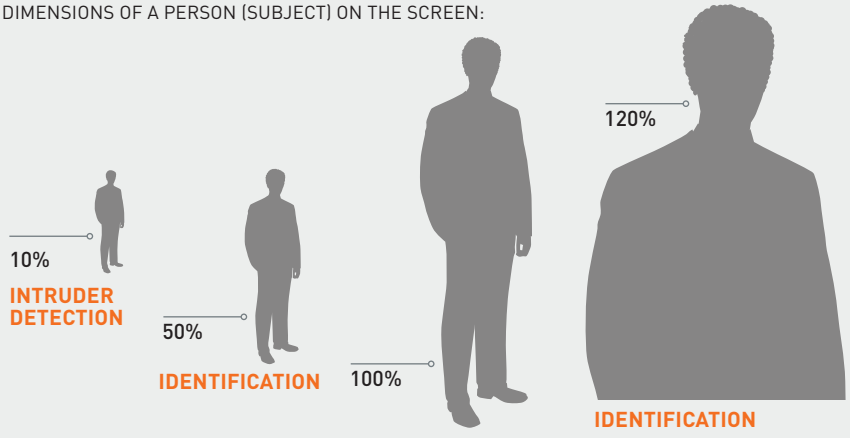
For a description of the results expected, refer to Standard **CEI EN 50132-7** and to the new standards of the CEI EN 62676 series.
The dimensions of an object/person on the monitor must be related to the operator's task, e.g. **identification, recognition, detection or monitoring.**
If the subject is a person and the CCTV system has an effective resolution limit greater than 400 television lines, the recommended minimum dimensions of this subject are:

a) for **identification**, the subject must represent not less than 120% of the screen height

b) for **recognition**, the subject must represent not less than 50% of the image height

c) to **detect an intrusion**, the subject must represent not less than 10% of the image height

THE FIGURE SHOWN BELOW GIVES AN INDICATION OF THE RELATIVE DIMENSIONS OF A PERSON (SUBJECT) ON THE SCREEN:



Phase 3

Definition of the number of cameras and their positioning

The quantity of expected results determines the number of cameras needed.
For each camera identify the most suitable position for the installation considering the following parameters: the dimensions of the objects to be captured (results expected), distance between them and the position where each camera is to be installed and the camera installation requirements (inside/outside, on the wall/ceiling/flush-mounting, etc.).

Take care that the use of the cameras **respects the standards in force, on both privacy and safeguarding workers.**

CAUTION:

- The films, sounds, voice and names are personal and sometime sensitive data and may be the subject of copyright or other third party intellectual property rights.
- Consequently, anyone using the equipment is bound:
  - to respect the Code on the protection of personal data;
  - to respect the obligations laid down on data security;
  - to respect rights to the image and the portrait, as well as legislation on copyright and intellectual and industrial property rights.
- BTicino is not responsible for illegal use of the equipment by its clients.

Refer to the **www.garanteprivacy.it** site for in-depth analysis and more detailed information.

YouDiagram software

BTicino makes available to the Professionals the **YouDiagram estimate software**

- which can be downloaded free from the site **www.bticino.com**
- Technical-software service and diagrams.

It is an innovative software to design CCTV systems.

The main design functions are:

- system diagram drawing
- free choice of the camera, its accessories and the type of power supply
- guided choice of the cameras complete with lenses on the basis of three simple items of information: dimension of the scene to be filled, camera distance, type of installation (wall, ceiling etc.)
- choice of the power supplies and verification of the power consumptions for cameras supplied at 12 Vdc
- DVR type selection
- monitor type selection
- calculation of the number of BNC necessary

Phase 4

Choice of the most suitable devices for achieving the required result

One can now identify the products needed to build the system: cameras, video recorders, monitors and accessories.

CAMERAS, with the information of the previous phase one can identify the most suitable compact cameras, using the simple usage tables available for this family of products.

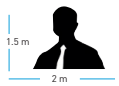
If compact cameras cannot be used for some special applications, high-performance cameras are available. Choose the most suitable accessories (e.g. bracket, housing, IR illumination headlamp and lens) for each of them.

DVR VIDEO RECORDERS, to be chosen on the basis of the number of cameras to be connected and the performance of the accessories supplied.

MONITOR, to be chosen on the basis of the display dimensions and the available space.

Choice of cameras as a function of the distance and type of image capturing table

CAMERAS WITH FIXED LENS

		1.2 - 1.5 m		2 m		3 m	
	**IDENTIFICATION** Foreground	**Analog cameras**	**Compact :** 391372 **Dome :** 391375				
		AHD cameras	**Compact :** 391113, 391143 **Dome :** 391111, 391141				
		IP cameras	**Compact :** 391796, 391798, 391764 **Dome :** 391795, 391797, 391763				
	PEOPLE IDENTIFICATION Foreground			**Analog cameras**	**Compact :** 391372 **Dome :** 391375	**Analog cameras**	**Compact :** 391372 **Dome :** 391375
				AHD cameras	**Compact :** 391113, 391143 **Dome :** 391111, 391141	**AHD cameras**	**Compact :** 391113, 391143 **Dome :** 391111, 391141
				IP cameras	**Compact :** 391796, 391798, 391764 **Dome :** 391795, 391797, 391763	**IP cameras**	**Compact :** 391796, 391798, 391764 **Dome :** 391795, 391797, 391763
	VEHICLE IDENTIFICATION Wide field						
	DETECTION Wide field						

CAMERAS WITH VARIFOCAL LENS

		1.2 - 2 m		2 - 3 m		5 - 6 m	
	IDENTIFICATION Foreground	**Analog cameras**	**Compact :** 391373 **Dome :** 391376, 391379 **Motorised Dome :** 391696	**Analog cameras**	**Compact :** 391373 **Dome :** 391376, 391379 **Motorised Dome :** 391696	**Analog cameras**	**Compact :** 391373, 391374 **Dome :** 391376, 391379 **Motorised Dome :** 391696
		AHD cameras	**Compact :** 391114, 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140	**AHD cameras**	**Compact :** 391114, 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140	**AHD cameras**	**Compact :** 391114, 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140
		IP cameras	**Compact :** 391761, 391766 **Dome :** 391760, 391762, 391765	**IP cameras**	**Compact :** 391761, 391766 **Dome :** 391760, 391762, 391765	**IP cameras**	**Compact :** 391761, 391766 **Dome :** 391760, 391762, 391765
	PEOPLE IDENTIFICATION Foreground			**Analog cameras**	**Compact :** 391373 **Dome :** 391376, 391379 **Motorised Dome :** 391696	**Analog cameras**	**Compact :** 391373, 391374 **Dome :** 391376, 391379 **Motorised Dome :** 391696
				AHD cameras	**Compact :** 391114, 391144 **Dome :** 391112, 391142 **Motorised Dome :** 391110, 391140	**AHD cameras**	**Compact :** 391114, 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140
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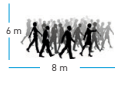
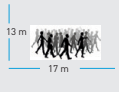
	**VEHICLE IDENTIFICATION** Wide field					**Analog cameras**	**Compact :** 391373 **Dome :** 391376, 391379 **Motorised Dome :** 391696
						AHD cameras	**Compact :** 391114, 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140
						IP cameras	**Compact :** 391761, 391766 **Dome :** 391760, 391762, 391765
	**DETECTION** Wide field						

	5 - 6 m		10 - 13 m			
	Analog cameras	**Compact :** 391372 **Dome :** 391375				
	AHD cameras	**Compact :** 391113 , 391143 **Dome :** 391111 ,391141				
	IP cameras	**Compact :** 391796, 391798, 391764 **Dome :** 391795, 391797, 391763				
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			IP cameras	**Compact :** 391796, 391798, 391764 **Dome :** 391795, 391797, 391763		

	10 m		13 m		20 - 40 m		50 - 60 m	
	Analog cameras	**Compact :** 391374 **Motorised Dome :** 391696	Analog cameras	**Motorised Dome :** 391696	Analog cameras	**Motorised Dome :** 391696		
	AHD cameras	**Motorised Dome :** 391110, 391140	AHD cameras	**Motorised Dome :** 391110, 391140	AHD cameras	**Motorised Dome :** 391110, 391140		
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	AHD cameras	**Compact :** 391114 , 391144 **Dome :** 391112 , 391142 **Motorised Dome :** 391110, 391140	AHD cameras	**Motorised Dome :** 391110, 391140	AHD cameras	**Motorised Dome :** 391110, 391140	AHD cameras	**Motorised Dome :** 391110, 391140
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THE Image capturing selection criteria:

Considering that the "display" function depends on the cameras, it is important to select the correct camera taking account of:

Installation environment

The products (IP 55 or IP 66) have high water resistance and can therefore be installed outside. If there is danger of any damage, select shock-resistant products (IK 10).
The cameras can be identified while Dome, mini or hidden cameras ensure discrete monitoring.

Event to capture

Some installation tips can instead be given for night & day cameras, generally the following:

- before installing the camera consider the dimensions of the scene to be captured and the distances involved (see camera selection guide section).

- avoid pointing the camera towards intense light sources (e.g. direct light or reflected from windows from the sun, street lamps, spotlights etc.). To obtain the best focus for varifocal lenses, adjust them in low-light conditions, e.g. in the evening or when the light conditions allow the LED illumination headlamps to light up.

- install the camera away from video disturbance sources. When the camera cables are positioned near electrical conductors or television aerials, the image may be disturbed.

Examples

Recommendations for installation

- Install the image capturing units (cameras) at a height between 3 and 4 metres.
- The camera support (brackets, housing, etc.) must guarantee electrical earth insulation (to avoid "ground loops").
- The camera power supply must be connected rigorously respecting the phase and the neutral. This is because cameras supplied with alternating current (230 Vac) use network 50 Hz for tuning: if all the cameras are correctly connected they are also tuned.
- The efficiency of the lighting systems is strongly dependent on the type of surface lit (reflection factor) and the generated light spectrum. When selecting the type of camera take into account that colour cameras require 10 times more light than a black-and-white camera. The amount of light on the scene to be captured must be at least 10 times the minimum lighting required by the camera. The "camera sensitivity" is the reference parameter for correctly selecting the camera on the basis of the light present. The table gives some brightness values referred to specific conditions.

EXAMPLES: BRIGHTNESS VALUES

Direct sunlight	50,000 lux
Indirect daylight with clear sky	10,000 - 20,000 lux
Daylight with cloudy sky	1,000 - 5,000 lux
Office indoor	200 - 500 lux
Minimum for a comfortable reading	300 lux
Lighting of corridors and outdoor working areas	50 - 100 lux
Sunset	10 lux
Public lighting on a main road	15 lux
Public lighting on a minor road	5 lux
Sunset (at the beginning)	10 lux
Sunset (at the end)	1 lux
Night with full moon	0.3 lux
Night with crescent moon	0.1 lux

DAY TIME image capturing

YES

NIGHT TIME image capturing

Correct camera positioning: the night view is defined and clear.

NO

Incorrect camera positioning: the field of view includes an intense light source. The camera should be directed so that the light source is excluded from the field of view.

YES

Correct camera positioning: independent of the sunlight, the image is clear and defined.

selection criteria: THE Recording

As one cannot monitor all the installations all the time, the scenes must be recorded and archived so that they can be examined later. The digital video recorders complete the camera installation and must be selected according to the following criteria:

The number of cameras

the output to be recorded determines the type and number of video recorders.
When the number of cameras to be installed is intended to increase, a video recorder with several inputs should be selected.
When the total number of cameras is the same or more than the capacity of a 16 camera video recorder (analog or IP) one can still have one or more centralised management points if they are connected to the same network (local or remote).

Type of recording

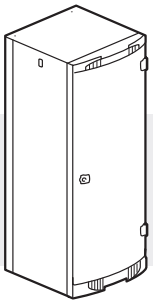
The choice of the storage devices (hard disk) is determined by the length of the recording (continuous recording or only for events), the image quality and how long the recorded data will be archived. With some video recorders other hard disks can be added.

The position

of the video recorder is an important factor to consider, depending on whether access must be allowed to the front controls or whether it will be installed in an electrical panel or cabinet. Before making direct installation in a rack check whether this is possible.

4-CHANNEL DVR

16-CHANNEL DVR



Display AND analyses

The display and analysis of a scene can be:

Live

The camera image is transmitted to a monitor or other remote video support.

Recorded

The image is saved on the video recorder for on-demand display. Both modes can be combined, however. For example: one can also see the recording of a scene directly on the monitor.

Local

The monitor is connected directly to the camera or video recorder.

Remotely

The analysis is carried out on the internet via PC or Smartphone.

Single or multiple channel mode

The video recorders can display the shots of several cameras on a single monitor (window display) in real time.

New BTicino CCTV application

They can display your CCTV system locally or remotely using the EDGE, 3G or Wi-Fi network.
The application incorporates the functions of display of live shots and instant playing of recordings.
Same application for IP, AHD and Analog.

available on App Store

AVAILABLE ON Google play

Eliot is the BTicino program dedicated to connected objects (Internet of things) which identifies all those products or systems which, because they can connect to the internet, give added value in terms of functionality, information, interactions with the environment and use.

selection criteria: THE Wiring

The camera wiring is particularly important in a CCTV system: here also we find differences between the **AHD** and **IP analog** solutions.

This is also one of the parameters to consider when choosing the most suitable technology for each system.

Cabling of analog cameras

Analog video signal:

- coaxial cable: simple to connect and requires no products or programming. The connection length is limited to 300 m
- UTP cable: can be incorporated in the structured cabling and updated in an IP solution. This system requires transmitters and receivers (baluns) at each end of the connection. Using receivers and amplified transmitters, the connection cannot be more than 1200 m long.

Power supply:

- traditional with dedicated wiring for each camera and a power supply for each camera.
- traditional with dedicated wiring for each camera and a centralised power supply shared by several cameras.

AHD camera cabling

Video analog signal in HD high definition (1280x720 pixel):

- coaxial cable: simple to connect and requires no products or programming. The connection length is limited to 300 m
- UTP cable: 300 m new AHD balun. The image detail degrades progressively with longer distances.

Power supply:

- traditional with dedicated wiring for each camera and a power supply for each camera.
- traditional with dedicated wiring for each camera and a centralised power supply shared by several cameras.

IP camera cabling

Simple wiring thanks to the NVR PoE, or structured cabling as for LAN/WAN networks. This last is very advantageous for systems in large buildings and benefits from all the BTicino BTNET catalogue solutions.

- on UTP cable
- on UTP cable plus fibre optics, in the case of long distances and backbone connection of a building or campus. Each backbone, whether UTP or fibre, can transmit the signals from several cameras.

Power supply:

The IP camera power supply can be of type:

- PoE (Power over Ethernet) on the same UTP cable used for the video signals.
- traditional with dedicated wiring for each camera and a power supply for each camera.
- traditional with dedicated wiring for each camera and a centralised power supply shared by several cameras.

Glossary

Compact or All-in-One (or multifunction)

Camera supplied with lenses and mechanisms already fitted. The device is supplied for wall mounted installation, and normally has a canopy for protection from weather conditions.

Modular

Camera supplied without lenses. For the installation of suitable lenses.

Dome

Camera supplied with lenses and mechanisms already fitted. This device is supplied for ceiling installation, or for installation using fixing brackets. The translucent cover gives the possibility of hiding the viewing angle of the camera.

Speed dome

Motorised camera capable of extremely fast movements. Its position changes in extremely short times, following the movements of any objects/individuals.

Focal length

focal length: The focal length is strictly linked to the angle of the field of view and is measured in mm. Lenses with shorter focal length (wide angles) have a wider field of view, while lenses with longer focal length (telephoto lenses) have a narrower field of view.

fixed focal length:

Camera lenses with fixed focal length and viewing angle.

Varifocal

Lenses focal length that can be changed manually. These lenses have been designed to ensure light weight and small dimensions. They can be used in a wide range of solutions. For example, if a focal length of 6 mm is required, a 3.5-8mm varifocal lens may be used.

Zoom

These lenses give the possibility of changing the features of the focal length. They are classed according to several factors (x6, x10, etc.); they are also available on the market in manual or motorised versions.

Resolution

The resolution determines the quality of the image played back. The quality of camera images depends on the number of vertical lines. The number of lines that must be produced by a camera in order to be considered a high resolution camera is not defined by the standards.

PoE/Power over Ethernet

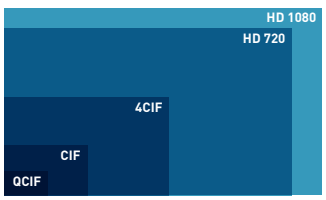
It supplies power to an IP camera through a network cable. It requires the installation of a PoE injector as power supply.

PoA/Power Over Analog

It supplies power supply to an analogue camera through a twisted pair. It requires the installation of transmitters and receivers (baluns) on the camera.

Image quality

The image quality is determined by the resolution, expressed in pixels for IP and AHD images. The greater the number of pixels (below indicated in brackets) the better the image quality.



- CIF (352 x 288)
- 2CIF (704 x 288)
- 4CIF (704 x 576)
- Semi D1 / HD1 (360 x 576)
- D1 / full D1 (720 x 576)
- HD 720 (1280 x 720)
- HD 1080 (1920 x 1080)

Recording quality:

The recording quality depends on the resolution of the image recorded, and the number of images recorded in 1 second.

Types of screens connected

The maximum resolution depends on the type of connection.

- Coaxial: 720 x 576,
- VGA: 1024 x 768,
- HDMI: 1920 x 1080

Sensitivity

This refers to the capability of a camera to reproduce a video signal with a lighting level equal to the minimum required lighting level (measured in lux), in order to obtain a video signal. The higher the camera sensitivity, the lower the light level required for the video signal. It is therefore clear that high sensitivity cameras require less light in order to record a good quality image. **Caution:** the minimum light level required (sensitivity) should not be confused with ambient lighting. They are both measured in lux, but the light detected by a camera is the light reflected by the objects and not the ambient lighting.

Simple automatic path

Motorised camera with automatic movement that follows a set path repeated at cyclical intervals. The movement of the camera follows linear paths between preset intermediate points.

Advanced automatic path

This function is similar to the previous one, but the movement follows a preset path that could be of any kind. This is set, for example, by recording a manually controlled path from the control position.

Glossary

CCD

Charge coupling device for the acquisition of images with solid state conductor.

Lux sensitivity:

The minimum amount of light required for the camera to produce an acceptable quality image.

N&D

Night&Day; the camera is capable of night time recording, therefore of recording with low light conditions. Day time images are recorded in colours, while night time images are in black and white. Night sensitivity can be obtained in two ways: sensitivity to infrared light or intensification of the little visible light available. Lighting of the area being recorded always improves night time recording. For this purpose IR LEDs installed on infrared camera are required.

ICR

IR cut removable, removable infrared filter. This device improves the performance of infrared sensitive cameras. It provides clearer images with bolder colours during the day, and clearer black and white images during the night and in precarious light conditions. Operation: during the day a screen that filters infrared light is placed in front of the camera sensor. In low light conditions (low level of visible light spectrum), the filter is mechanically moved, so that the camera becomes sensitive to infrared light.

IR

Infrared; infrared portion of the light spectrum. This is not visible to the naked eye, but can be recorded by the electronic sensor of a camera.

TV lines:

Horizontal resolution, maximum number of vertical lines in a frame that can be detected by the camera. This is an important parameter that defines the details of the image supplied by the camera in optimum conditions. Good quality images can be obtained starting from 380 TV lines. The maximum that can be used with a PAL signal is 550-600.

Pixel

Dots that make up the image and can be defined by an electric signal processed by the system.

Autoiris

This function automatically changes the lens based on the available ambient light. It can be very useful for outdoor installations, where light variations can be considerable.

BLC

Backlight compensation; it enables the camera to identify the best conditions for the image, and to automatically provide the necessary light level to identify an individual in case of background light.

AWB

Automatic White Balance enables the camera to compensate for colour light variations.

OSD menu

Menu for the control of the camera advanced functions, directly accessible on the camera itself.

Video LOOP

The DVR has a video output for each camera, useful when testing the installation, or for any other use of the signal of the individual camera.

Jog Shuttle

Frame by frame video recording advancement.

Watermarking:

This technique gives the possibility of including information within the images, to ensure its authenticity, and to obtain information on its origin and source.

P2P:

Peer to Peer (P2P) technology facilitates remote connection via internet.

The simple reading of a "QR code" or a numerical code avoids the complex configuration of the router.

CCTV
IP
SOLUTION

CATALOGUE

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CAMERAS

Item	**391795**	**391796**
Type	Dome HD	HD compact
Use	Indoor/Outdoor	Outdoor
N&D	Yes	Yes
Sensor	1/4" CMOS 1 Mega Pixel	1/4" CMOS 1 Mega Pixel
Type of lens (mm)	3.6	3.6
Sensitivity (lux)	0.05Lux @(F1.2,AGC ON), 0 Lux with IR	0.05Lux @(F1.2,AGC ON), 0 Lux with IR
Signal/noise ratio (dB)	>50 dB	>50 dB
Image elements	1280(H) x 720(V)	1280(H) x 720(V)
Maximum frequency of the images	Main flow (25fps): 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)	Main flow (25fps): 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)
Transmission speed	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps
Compression algorithm	H264	H264
Video output	No	NO
Audio input	NO	NO
Audio output	NO	NO
Communication ports	1 RJ45, 1 jack	1 RJ45, 1 jack
Port for SD memory	No	No
Wi-Fi	No	No
IR LED coverage/angle	10m	10m
IP index	IP 66 IK07	IP 66 IK07
Auto Gain Control (AGC)	Yes	Yes
BLC backlight compensation	Yes	Yes
Digital Wide Dynamic Range (DWDR)	YES	YES
Wide Dynamic Range (WDR)	NO	NO
ICR Cut IR Filter	YES	YES
Motion detector	YES	YES
Watermark		
I/O alarms	NO	NO
PIR alarm		
Supported protocol	IPV4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPV4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP
Standard	ONVIF Profile S	ONVIF Profile S
WEB access	Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.
Number of simultaneous connections	10	10
OSD menu	NO	NO
Privacy Zones	Yes (4 zones)	Yes (4 zones)
PoE	YES (802.3AF)	YES (802.3AF)
Dedicated BTICINO App	YES	YES
Power supply	12 Vdc not included	12 Vdc not included
Absorption	360mA / 4.3W	250mA / 3W
Operating humidity and temperature	-30°C/+70°C	-30°C/+70°C
Dimensions LxDxH (mm)	93 × 68	146 × 66
Weight	500 g	500 g

391797	**391798**	**391760**
Full HD Dome	Full HD Compact	Full HD Dome
Indoor/Outdoor	Outdoor	Indoor/Outdoor
Yes	Yes	Yes
1/3" CMOS 2 Mega Pixel	1/3" CMOS 2 Mega Pixel	1/3" CMOS 2 Mega Pixel
3.6	3.6	2.8 -12 Varifocal
0.05Lux @(F1.2,AGC ON), 0 Lux with IR	0.03Lux @(F1.2,AGC ON), 0 Lux with IR	0.05Lux @(F1.2,AGC ON), 0 Lux with IR
>50 dB	>50 dB	>50 dB
1280 (H) x 1080 (V)	1280 (H) x 1080 (V)	1280 (H) x 1080 (V)
Main flow (25fps): 1080P (1920x1080), 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)	Main flow (25fps): 1080P (1920x1080), 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)	Main flow (25fps): 1080P (1920x1080), 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)
Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps
H264	H264	H264
No	No	NO
No	No	NO
No	No	NO
1 RJ45, 1 jack	1 RJ45, 1 jack	1 RJ45, 1 jack
No	No	No
No	No	No
15 m	15 m	20 m
IP 66 IK07	IP 66 IK07	IP 66 IK07
Yes	Yes	Yes
Yes	Yes	Yes
YES	YES	YES
NO	NO	NO
YES	YES	YES
YES	YES	YES
NO	NO	NO
IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP
ONVIF Profile S	ONVIF Profile S	ONVIF Profile S
Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.
10	10	10
NO	NO	NO
Yes (4 zones)	Yes (4 zones)	Yes (4 zones)
YES (802.3AF)	YES (802.3AF)	YES (802.3AF)
YES	YES	YES
12 Vdc not included	12 Vdc not included	12 Vdc not included
480mA / 5.8W	320mA / 3.9W	420mA / 5W
-30°C/+70°C	-30°C/+70°C	-30°C/+70°C
135 x 99	146 x 66	108 x 146
600 g	500 g	350 g

CAMERAS

Item	391761	391763
Type	Full HD Compact	Dome H265
Use	Outdoor	Indoor/Outdoor
N&D	Yes	Yes
Sensor	1/3" CMOS 2 Mega Pixel	1/3" CMOS 3 Mega Pixel
Type of lens (mm)	2.8 -12 Varifocal	3.6
Sensitivity (lux)	0.05Lux @(F1.2,AGC ON) , 0 Lux with IR	0.05Lux @(F1.2,AGC ON), 0 Lux with IR
Signal/noise ratio (dB)	>50 dB	>50 dB
Image elements	1280 (H) x 1080 (V)	2096 (H) x 1561 (V)
Maximum frequency of the images	Main flow (25fps): 1080P (1920x1080), 720P (1280x720), D1 (704x576). Secondary flow (25fps): D1 (704x576), VGA (640x480). Flow from mobile network (25fps): QVGA (320x240)	Main flow (25fps): 3MP(2048x1536), 1296P (2304x1296), 1080P(1920x1080), 960P(1280x960), 720P (1280x720). Secondary flow (25fps): D1 (704x576), VGA (640x480), QVGA (320x240) Flow from mobile network (25fps): QVGA (320x240)
Transmission speed	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps
Compression algorithm	H264	H265 / H264
Video output	No	No
Audio input	No	No
Audio output	No	No
Communication ports	1 RJ45, 1 jack	1 RJ45, 1 jack
Port for SD memory	No	No
Wi-Fi	No	No
IR LED coverage/angle	20 m	15 m
IP index	IP 66 IK07	IP 66 IK07
Auto Gain Control (AGC)	Yes	Yes
BLC backlight compensation	Yes	Yes
Digital Wide Dynamic Range (DWDR)	Yes	Yes
Wide Dynamic Range (WDR)	No	No
ICR Cut IR Filter	Yes	Yes
Motion detector	Yes	Yes
Watermark		
I/O alarms	No	No
PIR alarm		
Supported protocol	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP
Standard	ONVIF Profile S	ONVIF Profile S
WEB access	Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.
Number of simultaneous connections	10	10
OSD menu	No	No
Privacy Zones	Yes (4 zones)	Yes (4 zones)
PoE	Yes (802.3af)	Yes (802.3af)
Dedicated BTICINO App	Yes	Yes
Power supply	12 Vdc not included	12 Vdc not included
Absorption	480mA / 5.8W	340mA / 4W
Operating humidity and temperature	-30°C/+70°C	-30°C/+70°C
Dimensions LxDxH (mm)	239 x 82	127 x 90
Weight	350 g	410 g

391764	**391765**	**391766**
Compact H265	Dome H265	Compact H265
Outdoor	Indoor/Outdoor	Outdoor
Yes	Yes	Yes
1/3" CMOS 3 Mega Pixel	1/3" CMOS 3 Mega Pixel	1/3" CMOS 3 Mega Pixel
3.6	2.8 -12 Varifocal	2.8 -12 Varifocal
0.05Lux @(F1.2,AGC ON) ,0 Lux with IR	0.05Lux @(F1.2,AGC ON) ,0 Lux with IR	0.05Lux @(F1.2,AGC ON) ,0 Lux with IR
>50 dB	>50 dB	>50 dB
2040 (H) x 1536 (V)	2096 (H) x 1561 (V)	2040 (H) x1536 (V)
Main flow (25fps): 3MP(2048x1536), 1296P (2304x1296), 1080P(1920x1080), 960P(1280x960), 720P(1280x720). Secondary flow (25fps): D1 (704x576), VGA (640x480), QVGA (320x240). Flow from mobile network (25fps): QVGA (320x240)	Main flow (25fps): 3MP(2048x1536), 1296P (2304x1296), 1080P(1920x1080), 960P(1280x960), 720P(1280x720). Secondary flow (25fps): D1 (704x576), VGA (640x480), QVGA (320x240) Flusso da rete mobile (25fps): QVGA (320x240)	Main flow (25fps): 3MP(2048x1536), 1296P (2304x1296), 1080P(1920x1080), 960P(1280x960), 720P(1280x720). Secondary flow (25fps): D1 (704x576), VGA (640x480), QVGA (320x240). Flow from mobile network (25fps): QVGA (320x240)
Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps	Main flow (25fps): from 256 to 8192 bps. Secondary flow (25fps): from 128 to 4096 bps. Flow from mobile network (25fps): from 8 to 1536 bps
H265 / H264	H265 / H264	H265 / H264
No	No	No
No	No	No
No	No	No
1 RJ45, 1 jack	1 RJ45, 1 jack	1 RJ45, 1 jack
No	No	No
No	No	No
15 m	20 m	20 m
IP 66 IK07	IP 66 IK 07	IP 66 IK 07
Yes	Yes	Yes
Yes	No	No
Yes	Yes	Yes
No	No	No
Yes	Yes	Yes
Yes	Yes	Yes
No	No	No
IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP	IPv4, HTTP, TCP/IP, RTSP, RTP, SMTP, NTP, DHCP, DDNS, FTP
ONVIF Profile S	ONVIF Profile S	ONVIF Profile S
Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.	Live, system configuration, log, maintenance, update, etc.
10	10	10
No	No	No
Yes (4 zones)	Yes (4 zones)	Yes (4 zones)
Yes (802.3af)	Yes (802.3af)	Yes (802.3af)
Yes	Yes	Yes
12 Vdc not included	12 Vdc not included	12 Vdc not included
350mA / 4.2W	460mA / 5.5W	520mA / 6.2W
-30°C/+70°C	-30°C/+70°C	-30°C/+70°C
155 x 76	147 x 112	239 x 82
410 g	500 g	350 g

NETWORK VIDEO RECORDERS

Item	391585 - 4 PoE channels	391586 - 8 PoE channels
Operating system	integrated LINUX	integrated LINUX
Number of channels	4	8
PoE switch	4	8
Control mode	Front panel, USB mouse, IR remote control, keypad, network	Front panel, USB mouse, IR remote control, keypad, network
Video outputs	1 VGA, 1 HDMI	1 VGA, 1 HDMI
Video standard	PAL / NTSC	PAL / NTSC
Display resolution	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 1680x1050, 1600x1200, 1900x1200, 2560x1440, 3840x2160	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 1680x1050, 1600x1200, 1900x1200, 2560x1440, 3840x2160
Max. range and recording resolution	8MP(4K), 5MP, 3MP ,2MP(1080P),1.3MP(960P), 1.0MP(720P) / max 50 Mbps	8MP(4K), 5MP, 3MP ,2MP(1080P),1.3MP(960P), 1.0MP(720P) / max 100 Mbps
Recording speed	50fps@3M, 50fps@1080p, 50fps@720p, 50fps@D1	100fps@3M, 100fps@1080p, 100fps@720p, 100fps@D1
Compression algorithm	H265 / H264	H265 / H264
Audio Inputs	No	No
Audio Outputs	1 RCA	1 RCA
Recording mode	Movement detection, Input/Output, Normal, By date, Remote	Movement detection, Input/Output, Normal, By date, Remote
Alarm inputs/outputs	4 inputs/ 1 outputs	8 inputs/ 1 outputs
Supported protocol	TCP/IP, UDP, DHCP, PPPoE, DDNS, UPNP	TCP/IP, UDP, DHCP, PPPoE, DDNS, UPNP
Display	Division 1 - 4	Division 1 - 4 - 6 - 8 - 9
Hard disk interface	2SATA HDDs, up to 6TB	2SATA HDDs, up to 6TB
Hard disk	1 x 2 TB	1 x 2 TB
USB / eSATA port	"2xUSB 2.0 (for mouse and backup/upgrade) 1xUSB 3.0 (for backup) 1x e-SATA"	"2xUSB 2.0 (for mouse and backup/upgrade) 1xUSB 3.0 (for backup) 1x e-SATA"
Communication ports	RS485, RJ45	RS485, RJ45
Network function	Direct display, playing and setting the recorder with Explorer, Chrome, Firefox (Windows) or Safari (MacOS). Direct display and playing with smartphone and iOS and Android tablets. E-mail sending function, NTP function.	Direct display, playing and setting the recorder with Explorer, Chrome, Firefox (Windows) or Safari (MacOS). Direct display and playing with smartphone and iOS and Android tablets. E-mail sending function, NTP function.
PTZ control	Yes (IP speed dome)	Yes (IP speed dome)
IR remote control	Yes	Yes
Mouse control	Yes	Yes
System keypad	Yes	Yes
Screen menu	Yes	Yes
Installation in Rack	No	No
Power supply	48 Vdc	48 Vdc
Consumption	18 W	19 W
Dimensions (LxDxH) (mm)	380x340x50	380x340x50
Weight (Kg)	4 Kg	4 Kg

NOTE:* BTicino Peer to Peer (P2P) technology facilitates remote connection via internet.
The simple reading of a "QR code" or a numerical code avoids the complex configuration of the router.

391587 - 16 PoE channels	391589 - 16 channels	391588 - 32 channels
integrated LINUX	integrated LINUX	integrated LINUX
16	16	32
16	No	No
Front panel, USB mouse, IR remote control, keypad, network	Front panel, USB mouse, IR remote control, keypad, network	Front panel, USB mouse, IR remote control, keypad, network
1 VGA, 1 HDMI	1 VGA, 1 HDMI	1 VGA, 1 HDMI
PAL / NTSC	PAL / NTSC	PAL / NTSC
1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 1680x1050, 1600x1200, 1900x1200, 2560x1440, 3840x2160	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 1680x1050, 1600x1200, 1900x1200, 2560x1440, 3840x2160	1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080, 1680x1050, 1600x1200, 1900x1200, 2560x1440, 3840x2160
8MP(4K), 5MP, 3MP ,2MP(1080P), 1.3MP(960P),1.0MP(720P) / max 320 Mbps	8MP(4K), 5MP, 3MP, 2MP(1080P), 1.3MP(960P), 1.0MP(720P) / max 320 Mbps	8MP(4K), 5MP, 3MP, 2MP(1080P), 1.3MP(960P), 1.0MP(720P) / max 320 Mbps
320fps@3M, 320fps@1080p, 320fps@720p, 320fps@D1	320fps@3M, 320fps@1080p, 320fps@720p, 320fps@D1	320fps@3M, 320fps@1080p, 320fps@720p, 320fps@D1
H265 / H264	H265 / H264	H265 / H264
No	No	No
1 RCA	1 RCA	1 RCA
Movement detection, Input/Output, Normal, By date, Remote	Movement detection, Input/Output, Normal, By date, Remote	Movement detection, Input/Output, Normal, By date, Remote
16 inputs/ 1 outputs	16 inputs/ 1 outputs	16 inputs/ 1 outputs
TCP/IP, UDP, DHCP, PPPoE, DDNS, UPNP	TCP/IP, UDP, DHCP, PPPoE, DDNS, UPNP	TCP/IP, UDP, DHCP, PPPoE, DDNS, UPNP
Division 1 - 4 - 6 - 8 - 9 - 10 - 13 - 14 - 16	Division 1 - 4 - 6 - 8 - 9 - 10 - 13 - 14 - 16	Division 1 - 4 - 6 - 8 - 9 - 10 - 13 - 14 - 16 - 17 - 19 - 22 - 25 - 32 - 36
2SATA HDDs, up to 6TB	1SATA HDDs, up to 6TB	1SATA HDDs, up to 6TB
1 x 2 TB	1 x 2 TB	1 x 2 TB
"2xUSB 2.0 (for mouse and backup/ upgrade) 1xUSB 3.0 (for backup) 1x e-SATA"	"2xUSB 2.0 (for mouse and backup/ upgrade) 1xUSB 3.0 (for backup) 1x e-SATA"	"2xUSB 2.0 (for mouse and backup/ upgrade) 1xUSB 3.0 (for backup) 1x e-SATA"
RS485, RJ45	RS485, RJ45	RS485, RJ45
Direct display, playing and setting the recorder with Explorer, Chrome, Firefox (Windows) or Safari (MacOS). Direct display and playing with smartphone and iOS and Android tablets. E-mail sending function, NTP function.	Direct display, playing and setting the recorder with Explorer, Chrome, Firefox (Windows) or Safari (MacOS). Direct display and playing with smartphone and iOS and Android tablets. E-mail sending function, NTP function.	Direct display, playing and setting the recorder with Explorer, Chrome, Firefox (Windows) or Safari (MacOS). Direct display and playing with smartphone and iOS and Android tablets. E-mail sending function, NTP function.
Yes (IP speed dome)	Yes (IP speed dome)	Yes (IP speed dome)
Yes	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes
No	No	No
230 Vac	12 Vdc	12 Vdc
21 W	13 W	13 W
380x340x50	300x227x53	300x227x53
2.5 Kg	4 Kg	2.5 Kg

BOX CAMERAS

391769

Item	391769
Type	Modular
Use	Indoor
N&D	Yes
Sensor	1/3" 3 Mega Pixel
Type of thread lens	
Type of lens (mm)	
Sensitivity (lux)	
Signal/noise ratio (dB)	≥50db
Image elements	2096(H)x1561(V)
Recording resolution	FULL HD (2096x1561) HD 1080 (1920x1080)
Recording speed	PAL: 2048x1536 at 15 f/s, D1 at 12 f/s, 1920x1080 at 25 f/s, D1 at 12 f/s
Compression algorithm	H265
Video output	
Audio input	
Audio output	
Audio compression	
Electronic shutter	
Communication ports	
Port for SD memory	Yes
Wi-Fi	No
IP index	
Auto Gain Control (AGC)	Yes
BLC backlight compensation	Yes
Digital Wide Dynamic Range (DWDR)	Yes
Wide Dynamic Range (WDR)	No
ICR Cut IR Filter	No
Motion detector	Yes
Watermark	
I/O alarms	Yes
PIR alarm	
Supported protocol	
Display on mobile phone or PDA	
Integrated Web Browser (IE)/Client software	
OSD menu	
Privacy Zones	Yes (4 zones)
PoE	Yes (802.3af)
Dedicated BTICINO App	Yes
Power supply	12 Vdc not included
Absorption	5 W
Operating humidity and temperature	-10°C/+60°C
Dimensions LxDxH (mm)	152x70x61

DC DRIVER VARIFOCAL AUTOIRIS LENSES FOR BOX CAMERAS

Item	391017	391018
Focal length (mm)	3 - 10.5	5 - 60
Power supply	DC	DC
Support	CS	C

ACCESSORIES

391834

391835

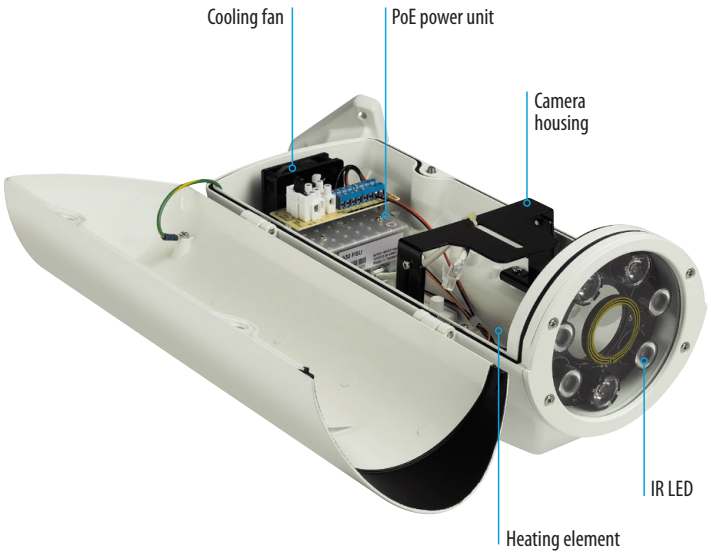
391844

391816

Item	ACCESSORIES
391834	- Box camera housing for outdoor installation with heating and cooling fan - Aluminium in ivory white colour - Cable trunking integrated in the housing (cable clamps and wall mounted installation included) - Opening from the top - Internal adjustable support for precise camera position adjustment - Energy consumption 50 W / 1.1 A - Power supply Hi-PoE (injector supplied) - IP65 / IK07 - For pole mounting add item 391844 - Operating temperature: from -20 °C to + 50 °C - Advanced function: 4 Outputs 12Vdc and 1 RJ 45 PoE port available inside

Item	ACCESSORIES
391835	- Box camera housing for outdoor installation with heating and cooling fan - Aluminium in ivory white colour - Cable trunking integrated in the housing (cable clamps and wall mounted installation included) - Infrared illumination using built-in LEDs - Adjustable LED: 50 - 70 m - Light sensor for infrared lighting activation - Energy consumption 50 W / 1.1 A - Automatic demisting - Power supply Hi-PoE (injector supplied) - IP65 / IK07 - Operating temperature: from -20 °C to + 50 °C - Opening from the top - For pole mounting, item 391844 - Advanced functions: • Infrared lighting automatically activated by a light sensor • NO-NC contact on the output, activated by the light sensor (for example for the control of day time/night time settings from the camera). • Advanced function: 4 Outputs 12Vdc and 1 RJ 45 PoE port available inside - Pole mounting for outdoor metal housing
391844	- Pole mounting system (diameter 83 – 177 mm)
391845	Swivel bracket (height 110mm) for indoor cameras.
391846	Swivel bracket (height 170 mm) for indoor cameras.
391816	IR LED illumination headlamp for indoor/outdoor powered at 12 Vdc

OUTDOOR HOUSING ITEM **391835**



ACCESSORIES

391938

Item	HARD DISK 2 TB
391938	Additional hard disk for NVR

Item	CCTV SIGNBOARD
391887	- CCTV signboard to display at the entrance of the building, to notify that a CCTV system is installed - In accordance with the following standards: 95-73 of 21/01/1995 and No. 2006-64 of 23/01/2006, decrees No. 96-926 of 17/10/1996 and No. 2009-86 of 22/01/2009 - Mounting: using screws or double-sided adhesive tape

SPEED DOME CAMERA

391762

391856

Item	SPEED DOME
391762	IP 2 Mega Pixel Motorised camera Optical zoom 18X AVAILABLE FROM OCTOBER 2016

	BRACKETS FOR SPEED DOME 391762
391357	Pole strap type 4 for speed dome
391358	Angle bracket type 4 for speed dome
391359	Ceiling bracket type 4 for speed dome

Item	ACCESSORIES FOR SPEED DOME CAMERAS
391856	keypad with 3 axes joystick for the new SPEED DOME control. LCD display, remote control (RS485) up to 1000 m. Multiprotocol, selectable data transmission speed. Power supply: 12 Vdc - 140 mA (power supply supplied).

BTNET STRUCTURED CABLING SYSTEM

C9309P4

C9012SZ

C9480N

032873

C9210U/5E

C9450FR2

Item	FIXED WALL MOUNTED DISTRIBUTION BOARD			
	19" wall mounted distribution board with rounded tempered glass front door and side silk-screen printing, upper and lower cable passages, top and bottom ventilation grids, and safety lock. Available in light grey colour finish, RAL7035, with IP20 – IK08 protection index			
	Rack unit	Length (mm)	Height (mm)	Maximum load (kg)
C9306P4	6 U	600	350	18
C9309P4	9 U	600	500	27
C9312P4	12 U	600	600	36
C9316P4	16 U	600	800	48
C9312P6	12 U	600	600	36
C9316P6	16 U	600	800	48

	ZONE BOX
C9012SZ	Zone box for the realisation of under floor centralisations (both copper and fibre optics), and for the improvement of the distribution flexibility of the data network - IP21, IK 07 - in accordance with the following standards UTE C 15-900, NF C 15-100, NF C 20-730, EN 50-174.2, CEI 60950, ISO/IEC 11801 and 2.0, EN 50173-2 and EIA/TIA 568- polycarbonate cover, polypropylene base, RAL 7035 colour – resistance up to 100 N – to be completed with dedicated blocks
	POWER OVER ETHERNET (POE)
C9480N	4-port PoE injector – 4 input ports and 4 output ports for the connection of up to 4 Access Points – supplied with 230 Vac/48 V power supply – to be installed in structures inside patch panels, item C9024CSTA, as a replacement of a connector block

Item	CABLE CAT.5E U/UTP		
	Category 5E U/UTP unshielded cable with 24AWG (0.51 mm) solid copper conductors, polyolefin insulation, 4 pairs of twisted conductors with internal separator - in accordance with ISO/IEC 11801, and 2.0, EN 50173-1 and EIA/TIA 568 B2.10 standards - grey colour		
	Sheath	Length (m)	Packaging
032750	LSZH	305	box
032873	LSZH	1000	reel

	PATCH CORDS CAT.5E
PVC	Patch panels with RJ45 connectors - category 5E - PVC sheath - with incorporated SNAGGLE - in accordance with EN 50173-1 and EIA/TIA 568 A/B standards
C9210U/5E	Length 1 m
C9220U/5E	Length 2 m
C9230U/5E	Length 3 m
C9250U/5E	Length 5 m

	ACTIVE EQUIPMENT
C9451P	switch for installation on patch panel item C9024CSTA – preset with 7 RJ45 ports, automatic detection of operating speed, 10/100/Mbit/s, base T, possibility of connection of up to 5 PCs – and one port for cascade connection with another C9451P -, in compliance with IEEE 802-3, EN 500 81-1, and EN 500 82-1 standards - 230 Vac/48 V power supply included
C9450FR2	copper/fibre optic conversion units – enable simple and quick conversion from copper to fibre optics and vice versa – can be directly anchored to patch panels – Supplied with fibre optic connector type SC 10 C9450 FR – from Base T 10/100 to base FX 10/100, SC type

MONITOR

Item	**391419**	**391420**
LCD display	7"	32" TFT
Active area		
Image format	16:9	16:9
Pixel Dimension	800 x 600	
Colour Display	16.7 millions	16.7 millions
Pixel Resolution	480 x 234	1920 x 1080
Brightness	250 cd/m^2	450 cd/m^2
Contrast ratio	500:1	4000:1
Viewing angle		176° (H) - 176°(V)
Response time	25 ms	8 ms
Audio input	NO	YES
Audio output	NO	YES
BNC video input	YES	YES
S-video input	NO	YES
VGA input	YES	YES
HDMI input	NO	YES
Operating humidity and temperature	(-10) - (+50) °C	0 - 50 °C
Power supply	12 Vdc (included)	100 - 240 Vac@50/60 Hz
Maximum consumption	10 W	65 W
Dimensions (LxHxD) (mm)	194 x 130	769.8 x 529.8 x 277
Wall mounted		

391422	**391424**	**391425**
42" TFT	19.5" LED	21.5" LED
	434.88 (H) x 238.68 (V) mm	476.64 (H) x 268.11 (V) mm
16:9	16:9	16:9
	0.226 (H) x 0.221 (V)	0.248 (H) x 0.248 (V)
16.7 millions	16.7 millions	16.7 millions
1920 x 1080	1920x1080	1920x1080
500 cd/m^2	250 cd/m^2	250 cd/m^2
4000:1	3000:1	1000:1
160° (H) - 160°(V)	178° (H) - 178°(V)	170° (H) - 176°(V)
8 ms	15 + 5 ms	5 ms
YES	YES	YES
YES	NO	NO
YES	YES	YES
YES	YES	YES
YES	YES	YES
YES	YES	YES
0 - 50 °C	5 - 50 °C	5 - 50 °C
100 - 240 Vac@50/60 Hz	100 - 240 Vac@50/60 Hz	100 - 240 Vac@50/60 Hz
< 220 W	< 15 W	< 20 W
1023 x 529.8 x 277	485x300	525x327
	YES with item 391858	YES with item 391858

391858
- wall mounting for 17" - 22" monitors
- adjustable mounting (horizontally and vertically)
- mounting points: 2
- mounting kit: supplied

CCTV
AHD SOLUTION

CATALOGUE

Cameras	36
DVR	40
CCTV kit	42
Accessories	42

CAMERAS

Item	391113	391114
Use	Outdoor	Outdoor
Sensor	1/4'' CMOS OV9712	1/4'' CMOS OV9712
Processor (DSP)	NVP2431H	NVP2431H
Horizontal resolution (pixel)	1282 (H) x 720 (V) - 720p	1282 (H) x 720 (V) - 720p
Scanning	Progressive	Progressive
N&D	Yes	Yes
Minimum lighting	0.1 lux@ F1.2 AGC on (Colour/BW) ; 0 lux@F1.2 IR ON	0.1 lux@ F1.2 AGC on (Colour/BW) ; 0 lux@F1.2 IR ON
ICR Cut IR Filter	Yes	Yes
IR LED coverage/angle	10 m / 90°	20 m / 75°
Signal/noise ratio (dB)	39db	39db
Electronic shutter	PAL: 1/25-1/10000sec	PAL: 1/25-1/10000sec
Auto iris	Yes	Yes
Menu (OSD)	No	No
Auto Gain Control (AGC)	Yes	Yes
Automatic White Balance (AWB)	Yes	Yes
Backlight compensation (BLC)	Yes	Yes
Digital noise reduction (DNR)	Yes	Yes
High Light Compensation (HLC)	No	No
Wide Dynamic Range (WDR)	No	No
Digital image stabilizer	No	No
Motion detection	No	No
Privacy zones	No	No
Slow shutter (sens-up)	No	No
Type of lens	3.6mm F1.2	2.8 - 12mm
IP index	IP66	IP66
IK index	IK6	IK6
Additional video output	No	No
Power supply	12VDC	12VDC
Absorption	350mA (IR on)	375mA (IR on)
Operating temperature	-10°C - +55°C	-10°C - +55°C
Dimensions LxDxH (mm)	64 x 64 x 146	88 x 80 x 260 mm
Weight	280g	566g

391111	**391110**	**391112**
Outdoor	Outdoor	Outdoor
1/4'' CMOS OV9712	1/3" CMOS ARO130	1/3" APTINA 0130
NVP2431H	NVP2431H	NVP2431H
1282 (H) x 720 (V) - 720p	1282 (H) x 720 (V) - 720p	1282 (H) x 720 (V) - 720p
Progressive	Progressive	Progressive
Yes	Yes	Yes
0.1 lux@ F1.2 AGC on ; 0.05 lux@F1.2 IR ON	0.5Lux (Colour) - 0.05Lux (B&W) - 0Lux (IR lamp)0.1 lux (B&W)	0.01Lux
Yes	Yes	Yes
10 m / 90°	100 m / 21.8° - 2.9°	40 m / 15° - 45°
39db	50db	50db
PAL: 1/25-1/10000sec	PAL:1/30s-1/10,000sec	1/25s~1/50,000s
Yes	Yes	Yes
No	Yes	No
Yes	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes
No	No	No
No	No	No
No	No	No
No	No	No
No	Yes (8)	No
No	No	No
3.6mm F1.2	6.5mm ~ 85 mm Optical zoom 18x	2.8 - 12mm
IP66	IP66	IP55
IK6	"IK8 (body) IK2 (lens cover) IK5 (IR LEDs cover)"	IK6
No	No	No
12VDC	12VDC	12VDC
350mA (IR on)	2500mA	500mA (IR on)
-10°C - +55°C	-40°C - +60°C	-10°C - +55°C
106.3 x 106.3 x 76.9 mm	260 x 260 x 390 mm (Dome)	139.9 x 139.9 x 101.4 mm
292 g	2.6 Kg	630g

391140 SPEED DOME AHD 1080p zoom 18x AVAILABLE FROM OCTOBER 2016

CAMERAS

Item	**391141**	**391142**
Use	Outdoor	Outdoor
Sensor	1/2.7'' CMOS OV2710	1/2.7'' CMOS OV2710
Processor (DSP)	V30	V30
Horizontal resolution (pixel)	1920 (H) x 1080 (V) - 1080p	1920 (H) x 1080 (V) - 1080p
Scanning	Progressive	Progressive
N&D	Yes	Yes
Minimum lighting	0.05 Lux	0.05 Lux
ICR Cut IR Filter	Yes	Yes
IR LED coverage/angle	15 m / 75°	30 m / 89°~35°
Signal/noise ratio (dB)	50db	50db
Electronic shutter	1/50s~1/10000s	1/50s~1/10000s
Auto iris	No	No
Menu (OSD)	No	No
Auto Gain Control (AGC)	Yes	Yes
Automatic White Balance (AWB)	Yes	Yes
Backlight compensation (BLC)	Yes	Yes
Digital noise reduction (DNR)	Yes	Yes
High Light Compensation (HLC)	Yes	Yes
Wide Dynamic Range (WDR)	DWDR	DWDR
Digital image stabilizer	No	No
Motion detection	No	No
Privacy zones	No	No
Slow shutter (sens-up)	No	No
Type of lens	3.6 mm	2.8 - 12 mm
IP index	IP66	IP66
IK index	IK6	IK6
Additional video output	No	No
Power supply	12VDC	12VDC
Absorption	270 mA (IR on)	400 mA (IR on)
Operating temperature	-25°C - +55°C	-25°C - +55°C
Dimensions LxDxH (mm)	94 x 94 x 88 mm	144 x 144 x116 mm
Weight	350g	650g

391143	391144
Outdoor	Outdoor
1/2.7'' CMOS OV2710	1/2.7'' CMOS OV2710
V30	V30
1920 (H) x 1080 (V) - 1080p	1920 (H) x 1080 (V) - 1080p
Progressive	Progressive
Yes	Yes
0.05 Lux	0.05 Lux
Yes	Yes
20 m / 75°	30 m / 89°~35°
50db	50db
1/50s~1/10000s	1/50s~1/10000s
No	No
No	No
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
DWDR	DWDR
No	No
No	No
No	No
No	No
3.6 mm	2.8 - 12 mm
IP66	IP66
IK6	IK6
No	No
12VDC	12VDC
270 mA (IR on)	400 mA (IR on)
-25°C - +55°C	-25°C - +55°C
63 x 75 x 176 mm	84 x 97 x 228 mm
350g	550g

DVR 720p

Item		391115	391116	391117
Compression algorithm		H264	H264	H264
Video standard		NTSC/PAL	NTSC/PAL	NTSC/PAL
Operating system		Integrated LINUX	Integrated LINUX	Integrated LINUX
Video IP inputs				
Video mixed inputs				
Video inputs/outputs		4CH input (BNC) / 1 CH output (HDMI) / 1 CH output (VGA)	8CH input (BNC) / 1 CH output (HDMI) / 1 CH output (VGA)	16CH input (BNC) / 1 CH output (HDMI) / 1 CH output (VGA)
Audio inputs/outputs		4CH input (BNC) / 1CH output (BNC)	8CH input (BNC) / 1CH output (BNC)	16CH input (BNC) / 1CH output (BNC)
Display	Resolution	PAL:1280x720p or 960x576 @25fps NTSC:1280x720p or 960x480 @30fps	PAL:1280x720p or 960x576 @25fps NTSC:1280x720p or 960x480 @30fps	PAL:1280x720p or 960x576 @15fps NTSC:1280x720p or 960x480 @15fps
	Features	Single/ Quad/S.E.Q.	Single/ Quad/S.E.Q.	Single/ Quad/S.E.Q.
Recording	Resolution	PAL:1280*720P or 960*576 NTSC:1280*720P or 960*480	PAL:1280*720P or 960*576 NTSC:1280*720P or 960*481	PAL:1280*720P or 960*576 NTSC:1280*720P or 960*482
	Speed	PAL:25fps(each ch) NTSC: 30fps(each ch)	PAL:12fps(each ch) NTSC: 15fps(each ch)	PAL:12fps(each ch) NTSC: 15fps(each ch)
Recording mode		Continuous/Manual/Motion detect	Continuous/Manual/Motion detect	Continuous/Manual/Motion detect
Number of playback channels		1/4ch	1/8ch	1/16ch
Playback speed		PAL : 25fps (each ch) / NTSC : 30fps (each ch)	PAL : 12fps (each ch) / NTSC : 15fps (each ch)	PAL : 12fps (each ch) / NTSC : 15fps (each ch)
Alarm and sensors inputs/outputs		4ch input	8ch input	8ch input
		1ch output	1ch output	1ch output
Supported protocol		Lan, DHCP, DDNS	Lan, DHCP, DDNS	Lan, DHCP, DDNS
Hard disk drive interface		1 SATA HDDs, up to 4TB	1 SATA HDDs, up to 4TB	1 SATA HDDs, up to 4TB
Hard disk supplied		1TB	1TB	2TB
Multiplex Operation		live display, record, playback, backup and network	live display, record, playback, backup and network	live display, record, playback, backup and network
USB / eSATA port		2xUSB (for mouse and backup/ upgrade)	2xUSB (for mouse and backup/ upgrade)	2xUSB (for mouse and backup/ upgrade)
PTZ control		Yes (Pelco-D, Pelco-P)	Yes (Pelco-D, Pelco-P)	Yes (Pelco-D, Pelco-P)
Monitoring from smartphone		Support for Ios and Android	Support for Ios and Android	Support for Ios and Android
OSD screen menu		Yes	Yes	Yes
VGA		800x600, 1024x768, 1280x1024, 1440x900, 1920x1080	800x600, 1024x768, 1280x1024, 1440x900, 1920x1080	800x600, 1024x768, 1280x1024, 1440x900, 1920x1080
HDMI		1080p	1080p	1080p
Power supply		230V AC - 12VDC /2000mA output	230V AC - 12VDC /2000mA output	230V AC - 12VDC /2000mA output
Maximum consumption		12VDC 950mA (HDD included)	12VDC 1000mA (HDD included)	12VDC 1000mA (HDD included)
Dimensions LxDxH (mm)		300 X 227 X 53 mm	300 X 227 X 53 mm	300 X 227 X 53 mm
Weight		1520g	1520g	1520g

DVR 1080p

391145	**391146**	**391147**
H264	H264	H264
NTSC/PAL	NTSC/PAL	NTSC/PAL
Integrated LINUX	Integrated LINUX	Integrated LINUX
2ch (only IP up to 6ch)	4ch (only IP up to 12ch)	8ch (only IP up to 24ch)
up to 6ch (analog + IP video)	up to 12ch (analog + IP video)	up to 24ch (analog + IP video)
4ch input (BNC) / 1 ch output (HDMI) / 1 ch output (VGA)	8ch input (BNC) / 1 ch output (HDMI) / 1 ch output (VGA)	16ch input (BNC) / 1 ch output (HDMI) / 1 ch output (VGA)
4ch input (BNC) / 1ch output (RCA)	8ch input (BNC) / 1ch output (RCA)	16ch input (BNC) / 1ch output (RCA)
Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H	Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H	Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H
Single/ Quad/S.E.Q.	Single/ Quad/S.E.Q.	Single/ Quad/S.E.Q.
Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H	Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H	Analog: 1080P/720P/960H IP: 8MP/4MP/1080P/720P/960H
Analog: PAL:15fps(each ch) NTSC:15fps(each ch) IP: PAL:25fps(each ch) NTSC:30fps(each ch)	Analog: PAL:15fps(each ch) NTSC:15fps(each ch) IP: PAL:25fps(each ch) NTSC:30fps(each ch)	Analog: PAL:15fps(each ch) NTSC:15fps(each ch) IP: PAL:25fps(each ch) NTSC:30fps(each ch)
Continuous/Manual/Motion detect	Continuous/Manual/Motion detect	Continuous/Manual/Motion detect
4ch	8ch	16ch
4ch inputs	8ch inputs	16ch inputs
1ch output	1ch output	1ch output
Lan, DHCP, DDNS	Lan, DHCP, DDNS	Lan, DHCP, DDNS
1 SATA HDD, up to 8TB	1 SATA HDD, up to 8TB	2 SATA HDD, up to 16TB
1TB	1TB	2TB
live display, record, playback, backup and network	live display, record, playback, backup and network	live display, record, playback, backup and network
2xUSB (for mouse and backup/upgrade)	2xUSB (for mouse and backup/upgrade)	2xUSB (for mouse and backup/upgrade)
Yes (Pelco-D/2400/8/1)	Yes (Pelco-D/2400/8/1)	Yes (Pelco-D/2400/8/1)
Support for Ios and Android	Support for Ios and Android	Support for Ios and Android
Yes	Yes	Yes
1024x768, 1280x1024, 1440x900, 1920x1080	1024x768, 1280x1024, 1440x900, 1920x1080	1024x768, 1280x1024, 1440x900, 1920x1080
1080p	1080p	2160p
12VDC /2000mA output	12VDC /2000mA output	12VDC /5000mA output
600mA (HDD included)	700mA (HDD included)	1400mA (HDD included)
300 X 227 X 53 mm	300 X 227 X 53 mm	378 x 340 x 50 mm
1520g	1520g	4000g

NOTE:* BTicino Peer to Peer (P2P) technology facilitates remote connection via internet.
The simple reading of a "QR code" or a numerical code avoids the complex configuration of the router.

CCTV KIT

391119

Item	KIT AHD 720P WITH 4-CHANNEL DVR
391119	- 1 DVR AHD item 391115, DVR 4 video inputs with LAN, HDD 1 TB, H264 - 2 cameras item 391113, compact camera 1280x720 pixel, 3.6 mm, IR 10 m, IP66 - 2 power supplies - 2 signboards item 391887, CCTV signboard - 4 COAX connectors - The kit can be expanded up to a max of 4 cameras

391120

Item	KIT AHD 720P WITH 8-CHANNEL DVR
391120	- 1 DVR AHD item 391116, DVR 8 video inputs with LAN, HDD 1 TB, H264 - 2 cameras item 391114, compact camera 1280x720 pixel, 2.8 - 12 mm, IR 20 m, IP66 - 2 power supplies - 2 signboards item 391887, CCTV signboard - 4 COAX connectors - The kit can be expanded up to a max of 8 cameras

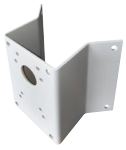
Item	KIT AHD 1080P WITH 4-CHANNEL DVR
391121	- 1 DVR AHD 1080p 4 channels item 391145 - 2 AHD 1080p compact cameras, fixed lens item 391143 - 2 plug-in power supplies item 391851 - 2 system signboards item 391887 - 4 connectors for coaxial cable item 391877

Item	KIT AHD 1080P WITH 8-CHANNEL DVR
391122	- 1 DVR AHD 1080p 8 channels item 391146 - 2 AHD 1080p compact cameras, varifocal lens item 391144 - 2 plug-in power supplies item 391851 - 2 system signboards item 391887 - 4 connectors for coaxial cable item 391877

ACCESSORIES

391118
391129

391371



391369

391370

391128

391856

Item	AHD ACCESSORY
391118	AHD video Balun
391371	Pole strap type 3 for Speed Dome
391369	Angle bracket type 3 for Speed Dome
391370	Ceiling bracket type 3 for Speed Dome
391129	AHD passive video Balun
391128	AHD optical insulator
391856	keypad with 3 axes joystick for the new SPEED DOME control. LCD display, remote control (RS485) up to 1000 m. Multiprotocol, selectable data transmission speed. Power supply: 12 Vdc - 140 mA (power supply supplied).
391816	IR LED illumination headlamp for indoor/outdoor powered at 12 Vdc

Max. distance of UTP cable between T transmitter and R receiver

Devices		Video 300 metres for AHD 1080p and for 720p
 391129 T passive	 391129 R passive	●

391816

CCTV
ANALOG SOLUTION

CATALOGUE

Compact cameras	44	Accessories	49
Dome - Speed Dome cameras	45	Accessories and power supplies	50
DVR	46	Accessories for wiring with UTP cable	51
CCTV kit	48	Monitor	52
Indoor cameras which can be associated to the civil series	49		

COMPACT CAMERAS

Item	391372	391373	391374
Use	Indoor/outdoor	Indoor/outdoor	Indoor/outdoor
N&D	YES	YES	YES
Sensor	1/3" CMOS 1099	1/3" CMOS 1099	1/3" CMOS 1099
Type of lens (mm)	3.6	2.8 - 12	9 - 22
Sensitivity (lux)	0 lux with IR ON	0 lux with IR ON	0 lux with IR ON
TVL horizontal resolution	800	800	800
Image elements (mm)	PAL 976 (H) x 496 (V)	PAL 976 (H) x 496 (V)	PAL 976 (H) x 496 (V)
Scanning system	Interlaced	Interlaced	Interlaced
Electronic shutter	PAL 1/50s 1/100000s	PAL 1/50s 1/100000s	PAL 1/50s 1/100000s
Signal/noise ratio (dB)	46	46	46
IR LED coverage/angle	15 m / 45°	25 m / 40°	25 m / 40°
IP index	IP66	IP66	IP65
Video output			
Autoiris	NO	NO	NO
Automatic White Balance (AWB)	YES	YES	YES
Wide dynamic range WDR	NO	NO	NO
BLC backlight compensation	YES	YES	YES
Auto Gain Control (AGC)	YES	YES	YES
ICR Cut IR Filter	YES	YES	YES
DNR digital noise reduction	YES	YES	YES
Diglital Slow Shutter DSS	NO	NO	NO
OSD menu	NO	NO	NO
Power supply	12 Vdc	12 Vdc	12 Vdc
Absorption	320 mA (IR ON)	360 mA (IR ON)	320 mA (IR ON)
Operating temperature	(-40) - (+70) °C	(-40) - (+70) °C	(-40) - (+70) °C
Dimensions LxDxH (mm)	80x160	85x90.5x228	85x90.5x228
Weight	360 g	850 g	850 g
Privacy Zones	NO	NO	NO

DOME - SPEED DOME CAMERAS

Item	391375	391376	391379
Use	Outdoor	Outdoor	Outdoor
N&D	YES	YES	YES
Sensor	1/3" CMOS 1099	1/3" CMOS 1099	1/3" CMOS 1099
Type of lens (mm)	3.6	2.8 - 12	2.8 - 12
Sensitivity (lux)	0 Lux with IR	0.01Lux@F1.2, AGC ON / 0 Lux with IR	0 lux with IR
TVL horizontal resolution	800	800	800
Image elements (mm)	976 (H) × 496 (V)	976 (H) × 496 (V)	PAL 976 (H) × 496 (V)
Scanning system	Interlaced	Interlaced	Interlaced
Electronic shutter	PAL: 1/50s - 1/100,000s s	PAL: 1/50s - 1/100,000s s	PAL: 1/50s - 1/100,000s s
Signal/noise ratio (dB)	46	46	46 db
IR LED coverage/angle	20 / 35° - 90°	25 / 35° - 90°	
IP index	IP65	IP66	IP65
Video output			No
Autoiris	No	No	Yes
Automatic White Balance (AWB)	Yes	Yes	NO
BLC backlight compensation	YES	YES	Yes
Auto Gain Control (AGC)	YES	YES	YES
ICR Cut IR Filter	YES	YES	YES
DNR digital noise reduction	YES	YES	YES
Diglital Slow Shutter DSS	NO	NO	NO
OSD menu	NO	NO	NO
Power supply	12 VDC	12 VDC	12 VDC
Absorption	220 MA (IR ON)	370 MA (IR ON)	210 MA (IR ON)
Operating temperature	-40 °C to 70 °C	-40 °C to 70 °C	(-40) - (+70) °C
Dimensions LxDxH (mm)	diameter 94x80	diameter 120x105	diameter 142x100
Weight	350 g	700 g	700 g
Zoom	No	No	
Zoom Speed			
Flicker removal			
Privacy Zones	NO	NO	
Preset No.			
Communication interface			
Protocols			
I/O alarms			

DVR ANALOG SOLUTION

Item	391512	391514
Video Inputs	16	4
Loopthrough		No
Main Output	1 BNC	1 BNC
SPOT Output	1 BNC	1 BNC
Audio Inputs	4 RCA	4 RCA
Audio Outputs	1 RCA	2 RCA
RJ45 network interface	YES	YES
Recording resolution	PAL CIF (360x288), HD1 (720x288), D1 (720x576) NTSC CIF (360x240), HD1 (720x240), D1 (720x480)	PAL CIF (360x288), HD1 (720x288), D1 (720x57z) NTSC CIF (360x240), HD1 (720x240), D1 (720x480)
Recording speed	PAL CIF 25 fps, HD1 12 fps, D1 9 fps	PAL CIF 25 fps, HD1 25 fps, D1 25 fps
Recording mode	Manual/Programmed/Movement detection	Manual/Programmed/Movement detection
Compression algorithm	H264	H264
Audio Compression		
Bit Rate		
Alarm inputs/outputs	8 inputs/ 1 outputs	4 inputs/ 1 outputs
Supported protocol	TCP/IP, SMTP,DHCP, DDNS,PPPoE	TCP/IP,UDP, DHCP, DDNS, PPPOE,UPNP
DVD burning		NO
Hard disk	SATA 500 Gb	SATA 500 Gb
Removable HD		YES
USB port	2 (mouse, backup / upgrade)	2 (mouse, backup / upgrade)
Display	Division 1 - 4 - 8 - 16	Division 1 - 4
Motion detector	YES	YES
Watermark		
Live and Playback digital zoom	YES	YES
Display on mobile phone or PDA	YES	YES (Ios, Android)
Integrated Web Browser (IE)/ Client software	YES	YES
Email on event with attached images	YES	YES
Camera traverse management		YES RS-485 port
Dedicated BTicino App	YES	YES
Standard App	NO	NO
OSD screen menu	YES	YES
Mouse control	YES	YES
System keypad	NO	NO
E-SATA		
Backup Mode	H264 file / USB flash disk / USB CD/DVD-RW Drive & Network	H264 file / USB flash disk / USB CD/DVD-RW Drive & Network
IR remote control	YES	YES
Dimensions (LxDxH) (mm)	300x225x52	300x225x52
Weight	1050 g	
Maximum consumption	10 W	2 A
Operating humidity and temperature	10 - 40 °C, 10 - 90 % RH	10 - 40 °C, 10 - 90 % RH
Power supply	12 Vdc Power supply supplied	12 Vdc Power supply supplied
Maximum consumption	10 W	2 A
Operating humidity and temperature	10 - 40 °C, 10 - 90 % RH	10 - 40 °C, 10 - 90 % RH
Power supply	12 Vdc Power supply supplied	12 Vdc Power supply supplied

391528	391525
8	16
No	
1 BNC	1 BNC
1 BNC	1 BNC
8 RCA	16 RCA
2 RCA	1 RCA
YES	YES
PAL CIF (360x288), HD1 (720x288), D1 (720x576) NTSC CIF (360x240), HD1 (720x240), D1 (720x480)	PAL CIF (360x288), HD1 (720x288), D1 (720x576) NTSC CIF (360x240), HD1 (720x240), D1 (720x480)
PAL CIF 25 fps, HD1 25 fps, D1 25 fps	PAL CIF 25 fps, HD1 25 fps, D1 25 fps
Manual/Programmed/Movement detection	Manual/Programmed/Movement detection
H264	H264
8 inputs/ 1 outputs	16 inputs/ 1 outputs
TCP/IP,UDP, DHCP, DDNS, PPPOE,UPNP	TCP/IP,UDP, DHCP, DDNS, PPPOE,UPNP
NO	
SATA 500 Gb	SATA 1 Tb
YES	
2 (mouse, backup / upgrade)	2 (mouse, backup / upgrade)
Division 1 - 4 - 8	Division 1 - 4 - 8 - 16
YES	YES
YES	YES
YES (Ios, Android)	YES (Ios, Android)
YES	YES
YES	YES
YES RS-485 port	YES RS-485 port
YES	YES
NO	NO
YES	YES
YES	YES
NO	NO
H264 file / USB flash disk / USB CD/DVD-RW Drive & Network	H264 file / USB flash disk / USB CD/DVD-RW Drive & Network
YES	YES
300x225x52	377x330x50
	2730 g
2 A	15 W
10 - 40 °C, 10 - 90 % RH	10 - 40 °C, 10 - 90 % RH
12 Vdc Power supply supplied	12 Vdc Power supply supplied
2 A	2 A
10 - 40 °C, 10 - 90 % RH	10 - 40 °C, 10 - 90 % RH
12 Vdc Power supply supplied	12 Vdc Power supply supplied

CCTV KIT

BTicino has conceived a range of dedicated items to make small systems with standard performance. The offer is based on prepackaged kits which include all the products necessary for a small but complete installation. Simple to choose and install, they can be expanded to best answer the variability of the most common needs.

391902

391903

Item	KIT FOR 4 INPUTS, 2 CAMERAS 800 TVL
391902	- 1 DVR item 391514, DVR 4 video inputs with LAN, 100 FPS, HDD 500 GB, H264 - 2 cameras item 391372, compact camera 800 TVL, 3,6 mm, IR 18 m, IP66 - 2 power supplies item 391851, plug-in power supply 230 Vac, output 12 Vdc / 0.5 A - 2 signboards item 391887, CCTV signboard - 4 COAX connectors - The kit can be expanded up to a max of 4 cameras

Item	KIT FOR 8 INPUTS, 2 CAMERAS 800 TVL
391903	- 1 DVR item 391528, DVR 8 video inputs with LAN, 200 FPS, HDD 500 GB, H264 - 2 cameras item 391373, compact camera 800 TVL, 2.8 - 12 mm, IR 35 m, IP66 - 2 power supplies item 391851, plug-in power supply 230 Vac, output 12 Vdc / 0.5 A - 2 signboards item 391887, CCTV signboard - 4 COAX connectors - The kit can be expanded up to a max of 8 cameras

INDOOR CAMERAS WHICH CAN BE ASSOCIATED TO THE CIVIL SERIES

391648

391652

Item	INDOOR CAMERAS WHICH CAN BE ASSOCIATED TO THE BTICINO CIVIL SERIES
	With video signal output in coaxial. To be completed with front cover plates, sold separately.
391648	flush mounted colour camera - LIVINGLIGHT white. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc – 120 mA (max)
391647	flush mounted colour camera - LIVINGLIGHT anthracite. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc - 120 mA (max)
391649	flush mounted colour camera - LIVINGLIGHT tech. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc -120 mA (max)
391651	flush mounted colour camera - AXOLUTE tech. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc – 120 mA (max)
391652	flush mounted colour camera - AXOLUTE anthracite. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc – 120 mA (max)
391653	flush mounted colour camera - AXOLUTE white. 1/3" CCD, resolution 380 horizontal lines, 3.7 mm fixed optics Power supply: 12 Vdc – 120 mA (max)

ACCESSORIES

391816

Item	IR ILLUMINATION HEADLAMPS
391816	IR LED illumination headlamp for indoor/outdoor powered at 12 Vdc

ACCESSORIES AND POWER SUPPLIES

391418

391591

391877

391878

391889

391890

391851

391879

Item	VARIOUS DEVICES AND ACCESSORIES
391877	BNC crimping connectors with plastic cable entry, package 10 pcs
391878	BNC screw connector, package 10 pcs
391887	- CCTV signboard to display at the entrance of the building, to notify that a CCTV system is installed - in conformity with 95-73 standard of the 21/01/1995 and No. 2006-64 of the 23/01/2006 decrees No. 96-926 of the 17/10/1996 and No. 2009-86 of the 22/01/2009 - Mounting: using screws or double-sided adhesive tape
391889	12V clamp with screw coupling, package 10 pcs
391890	12V clamp with cable coupling, package 10 Pcs.
C9451P	switch for installation on patch panel item C9024CSTA – preset with 7 RJ45 ports, automatic detection of operating speed, 10/100/Mbit/s, base T, possibility of connection of up to 5 PCs – and one port for cascade connection with another C9451P -, in compliance with IEEE 802-3, EN 500 81-1, and EN 500 82-1 standards - 230 Vac/48 V power supply included
391418	tester for CCTV systems.
391879	tool case kit for traditional COAX wiring with: crimping pliers, cable stripper, and cable cutter.

Item	POWER SUPPLIES
391853	stabilized power supply in plastic housing. Input: 230 Vac, output: 12 Vdc-2.5 A. Protection index: IP30. Protection index against mechanical impact: IK05.
391591	Stabilized power supply in DIN plastic housing (4 modules) Input: 230 Vac - 50 Hz Output: 12 Vdc - 4.5 A
391851	Plug in 12 Vdc power supply - 0.5 A

ACCESSORIES FOR WIRING WITH UTP CABLE

391859

391871

391881

391884

391870

Item	ACCESSORIES FOR WIRING WITH UTP CABLE
032751	category 5E U/UTP unshielded cable with 24AWG (0.51 mm) solid copper conductors, polyolefin insulation, 4 pairs of twisted conductors - in accordance with ISO / IEC 11801 standards - grey colour. Sheath in NH. Length 305 m
032750	category 5E U/UTP unshielded cable with 24AWG (0.51 mm) solid copper conductors, polyolefin insulation, 4 pairs of twisted conductors - in accordance with ISO / IEC 11801 standards - grey colour. Sheath in PVC. Length 305 m
391859	passive video converter for UTP cable, maximum distance up to 300 m between transmission converter and reception converter, up to 600 m between transmission converter and active video receiver, item 391871, package 10 pcs
391871	"Active video receiver (amplified), balun video / receiver. It enables real time high performance colour or black and white (B/W) CCTV video reception on UTP cable. Maximum distances up to 600 metres between active video receiver and transmission converter, item 391859, up to 1200 m between active video receiver and active video transmitter, item 391884
391875	"Optical insulator for CCTV video. It eliminates interferences such as distortion, taering, cross lines, reticulation, and snow flake effects. The insulation voltage reaches 800 V. It has protection from voltage peaks, and can be widely used in CCTV video transmissions

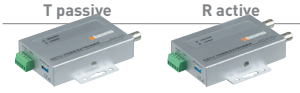
Item	ACCESSORIES FOR WIRING WITH UTP CABLE
391879	Crimping pliers
391881	Non-amplified passive video converter with power supply; it enables real time closed circuit low voltage video transmission on UTP cable. It consists of transmitter and receiver. Both have BNC-M and RJ-45 jack for the video signal and a CC female connector for the connection of the current adapter
391884	"Amplified active video transmitter with equaliser. It enables real time high performance colour or black and white (B/W) CCTV video transmission on UTP cable.
391870	passive video converter for UTP cable, for DVR wiring using a UTP cable. Compatible with all the DVRs on the catalogue, enables UTP cable connection of all the BNC inputs of the DVR.

DEVICES FOR UTP WIRING

Using the UTP cable it is possible to transmit the video signal only, or the video signal and the 12 Vdc power supply.

For this reason, there are active or passive transmitters/receivers for the video signal only, or for the video signal and the power supply voltage.

The following table shows the devices for the conversion of the signal based on the installation distance.

Coupling devices	Max. distance of UTP [2] cable between T transmitter and R receiver			
	Video 300 metres	Video 600 metres	Video 1200 metres	Video + Power supply[1] 80 metres
391859 T passive / 391870 R passive	●			
391859 T passive / 391871 R active		●		
 391884 T active / 391871 R active			●	
391881 T-R passive				●

NOTES: 1) POWER SUPPLY 12 VDC AND MAX CURRENT 1 A.
2) ALL CATEGORIES OF UTP CABLE CAN BE USED.

MONITOR

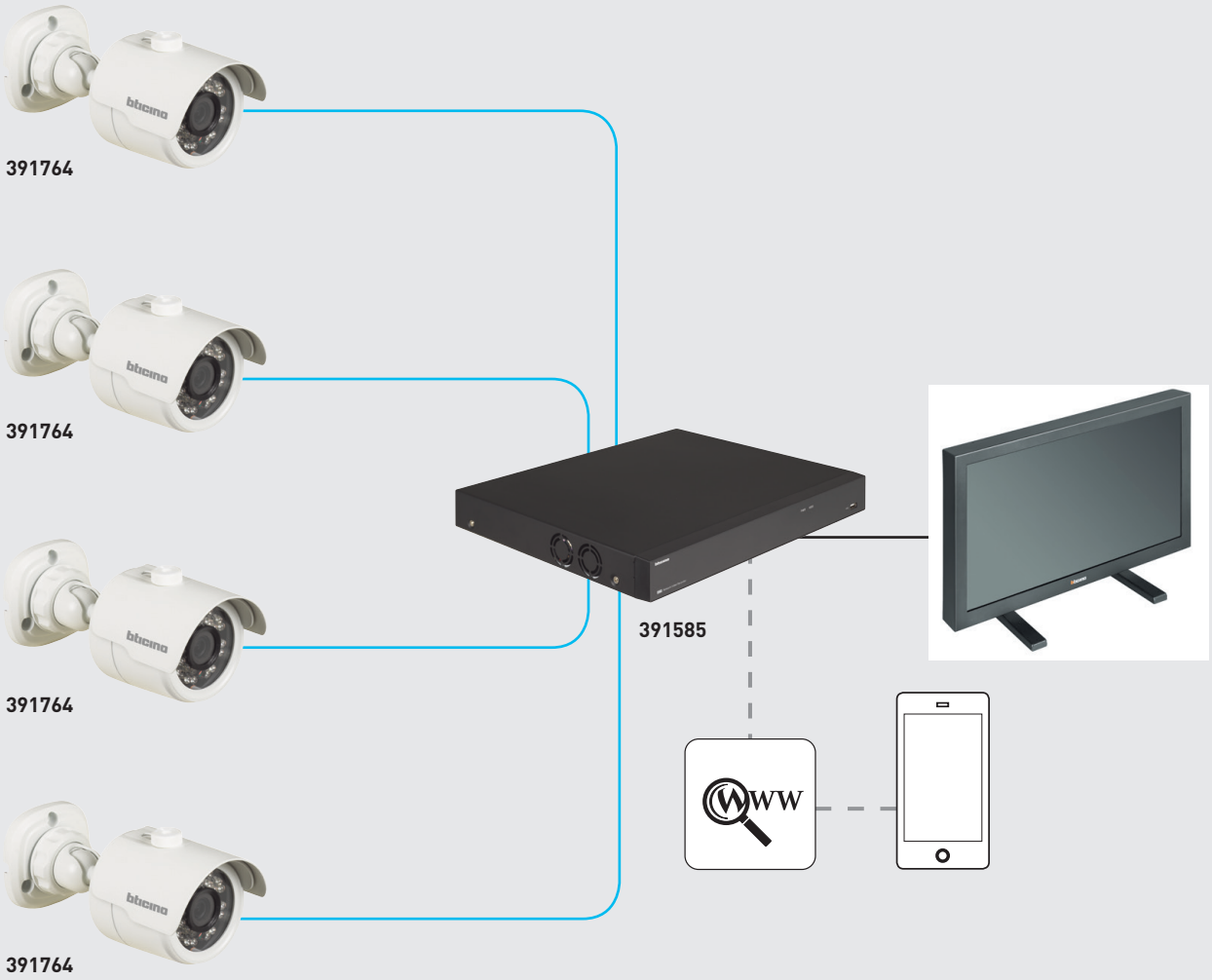
Item	**391419**	**391420**
LCD display	7"	32" TFT
Active area		
Image format	16:9	16:9
Pixel Dimension	800 x 600	
Colour Display	16.7 millions	16.7 millions
Pixel Resolution	480 x 234	1920 x 1080
Brightness	250 cd/m^2	450 cd/m^2
Contrast ratio	500:1	4000:1
Viewing angle		176° (H) - 176°(V)
Response time	25 ms	8 ms
Audio input	NO	YES
Audio output	NO	YES
BNC video input	YES	YES
S-video input	NO	YES
VGA input	YES	YES
HDMI input	NO	YES
Operating humidity and temperature	(-10) - (+50) °C	0 - 50 °C
Power supply	12 Vdc (included)	100 - 240 Vac@50/60 Hz
Maximum consumption	10 W	65 W
Dimensions (LxHxD) (mm)	194 x 130	769.8 x 529.8 x 277
Wall mounted		

	391422	**391424**	**391425**
	42" TFT	19.5" LED	21.5" LED
		434.88 (H) x 238.68 (V) mm	476.64 (H) x 268.11 (V) mm
	16:9	16:9	16:9
		0.226 (H) x 0.221 (V)	0.248 (H) x 0.248 (V)
	16.7 millions	16.7 millions	16.7 millions
	1920 x 1080	1920x1080	1920x1080
	500 cd/m^2	250 cd/m^2	250 cd/m^2
	4000:1	3000:1	1000:1
	160° (H) - 160°(V)	178° (H) - 178°(V)	170° (H) - 176°(V)
	8 ms	15 + 5 ms	5 ms
	YES	YES	YES
	YES	NO	NO
	YES	YES	YES
	YES	YES	YES
	YES	YES	YES
	YES	YES	YES
	0 - 50 °C	5 - 50 °C	5 - 50 °C
	100 - 240 Vac@50/60 Hz	100 - 240 Vac@50/60 Hz	100 - 240 Vac@50/60 Hz
	< 220 W	< 15 W	< 20 W
	1023 x 529.8 x 277	485x300	525x327
		YES with item 391858	YES with item 391858

391858
- wall mounting for 17" - 22" monitors
- adjustable mounting (horizontally and vertically)
- mounting points: 2
- mounting kit: supplied

SYSTEM EXAMPLES

Plug-in IP system

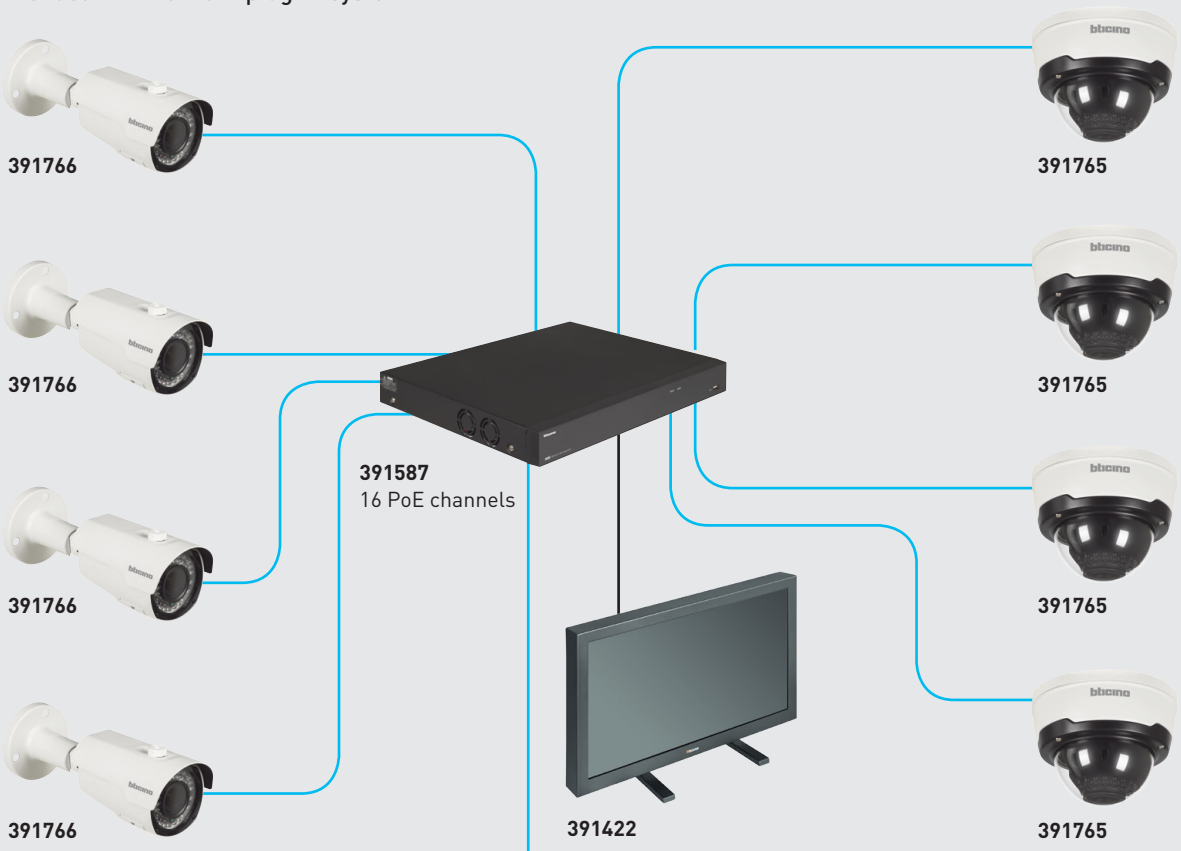


LEGEND:

HDMI CABLE

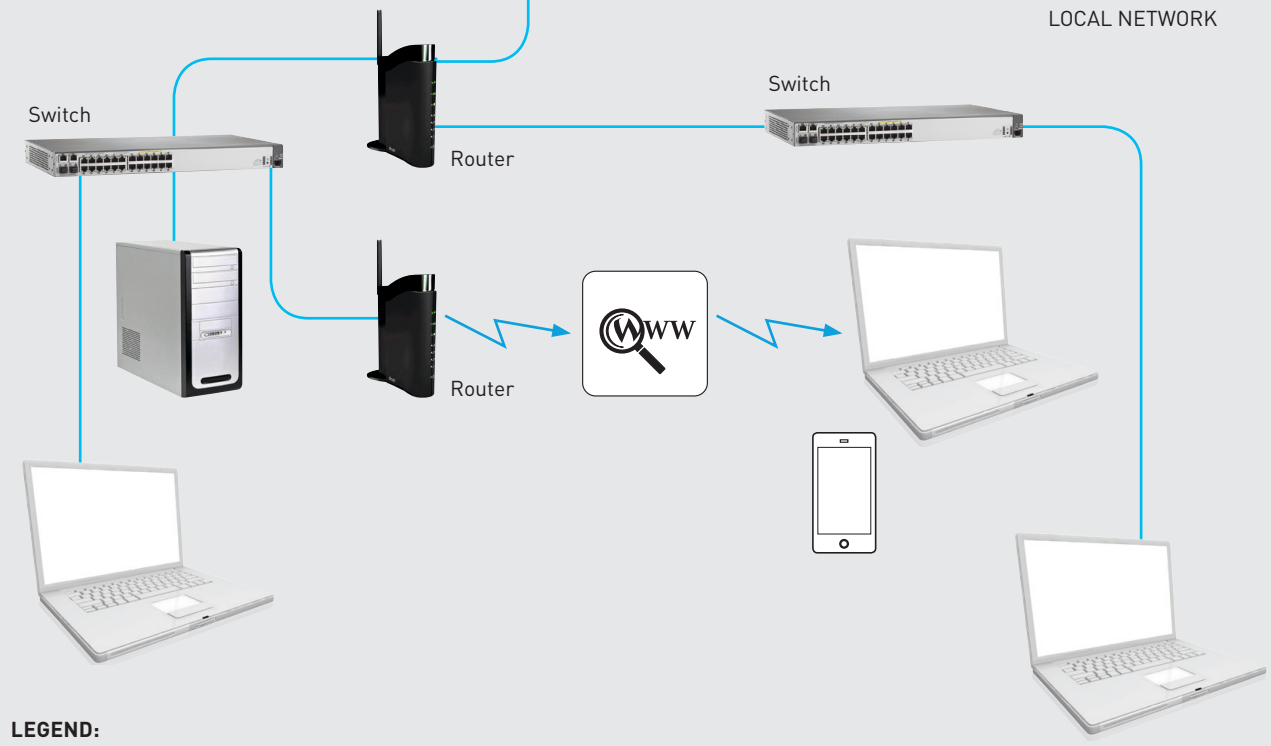
U/UTP CABLE

Extended LAN network plug-in system



SUB - NETWORK CCTV

LOCAL NETWORK



LEGEND:

HDMI CABLE

U/UTP CABLE

SYSTEM EXAMPLES

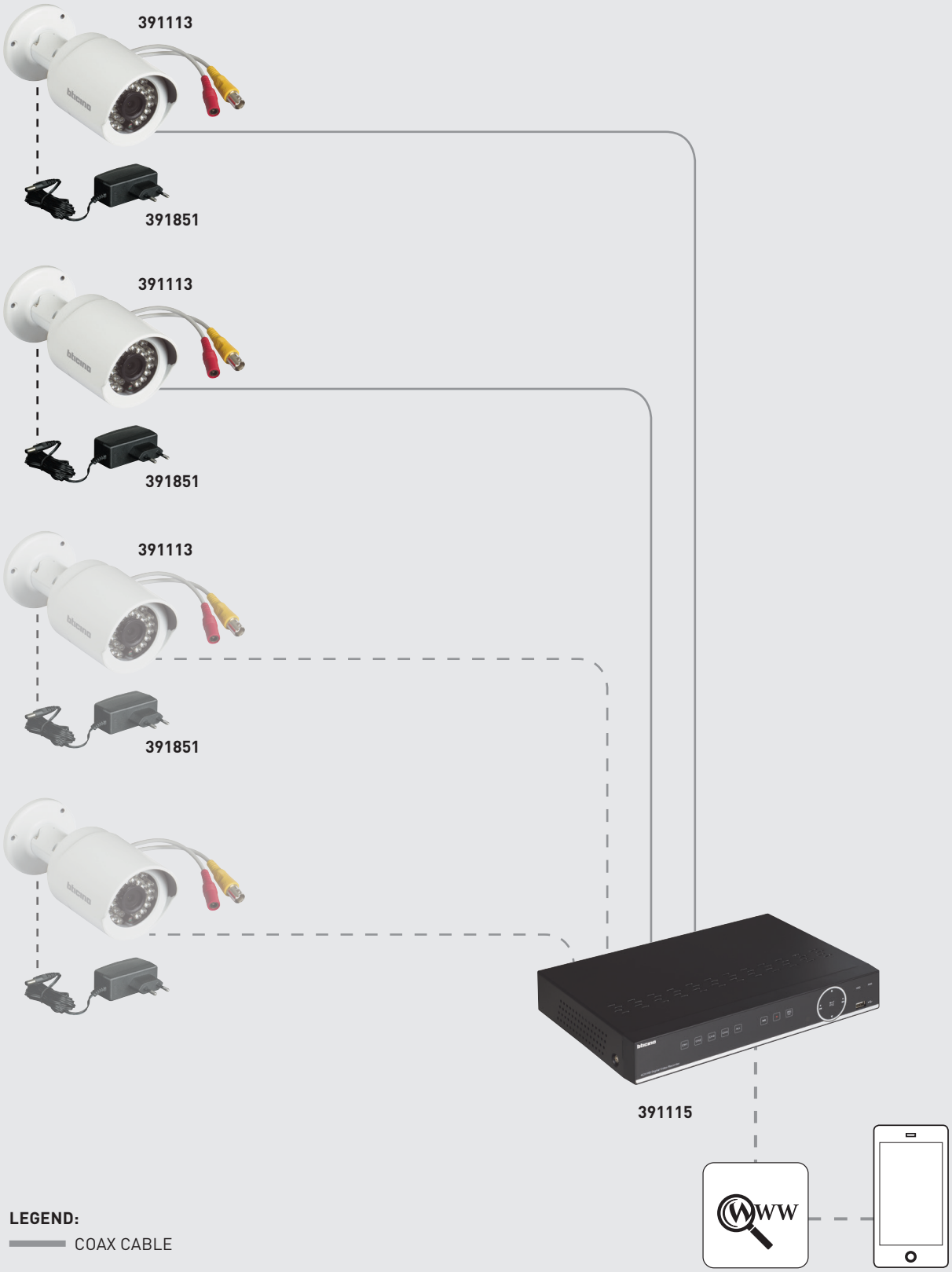
IP system with UPS single-phase

LEGEND:

POWER SUPPLY CABLE

U/UTP CABLE

AHD kit which can be expanded up to 4 cameras item 391119



LEGEND:

COAX CABLE

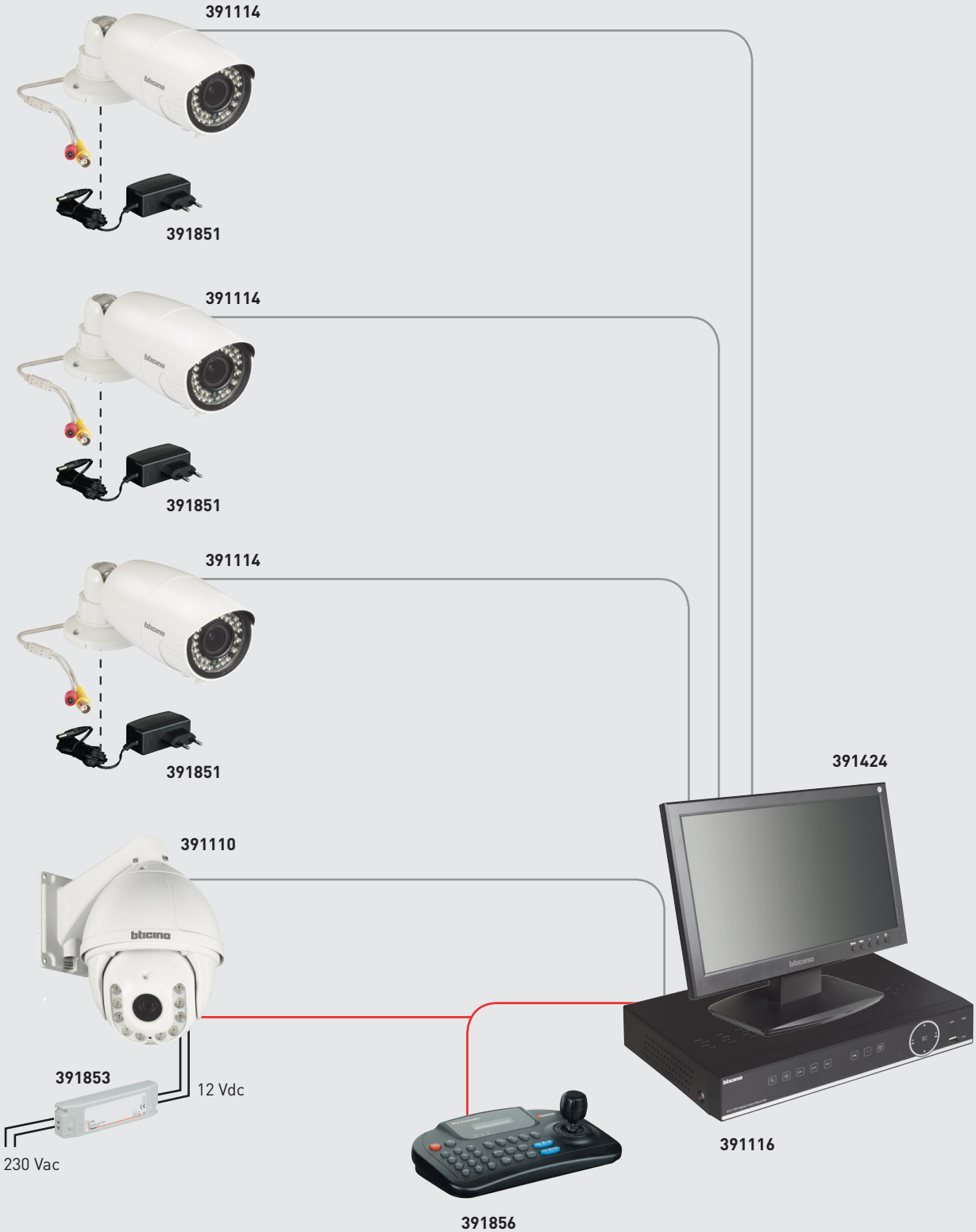
NOTES:

1) AHD kit which can be expanded up to 8 cameras item 391120

2) Provide power supply cables of adequate cross-section in relation to the distance and the consequent drop in voltage.

SYSTEM EXAMPLES

AHD system with Speed Dome camera



LEGEND:

COAX CABLE

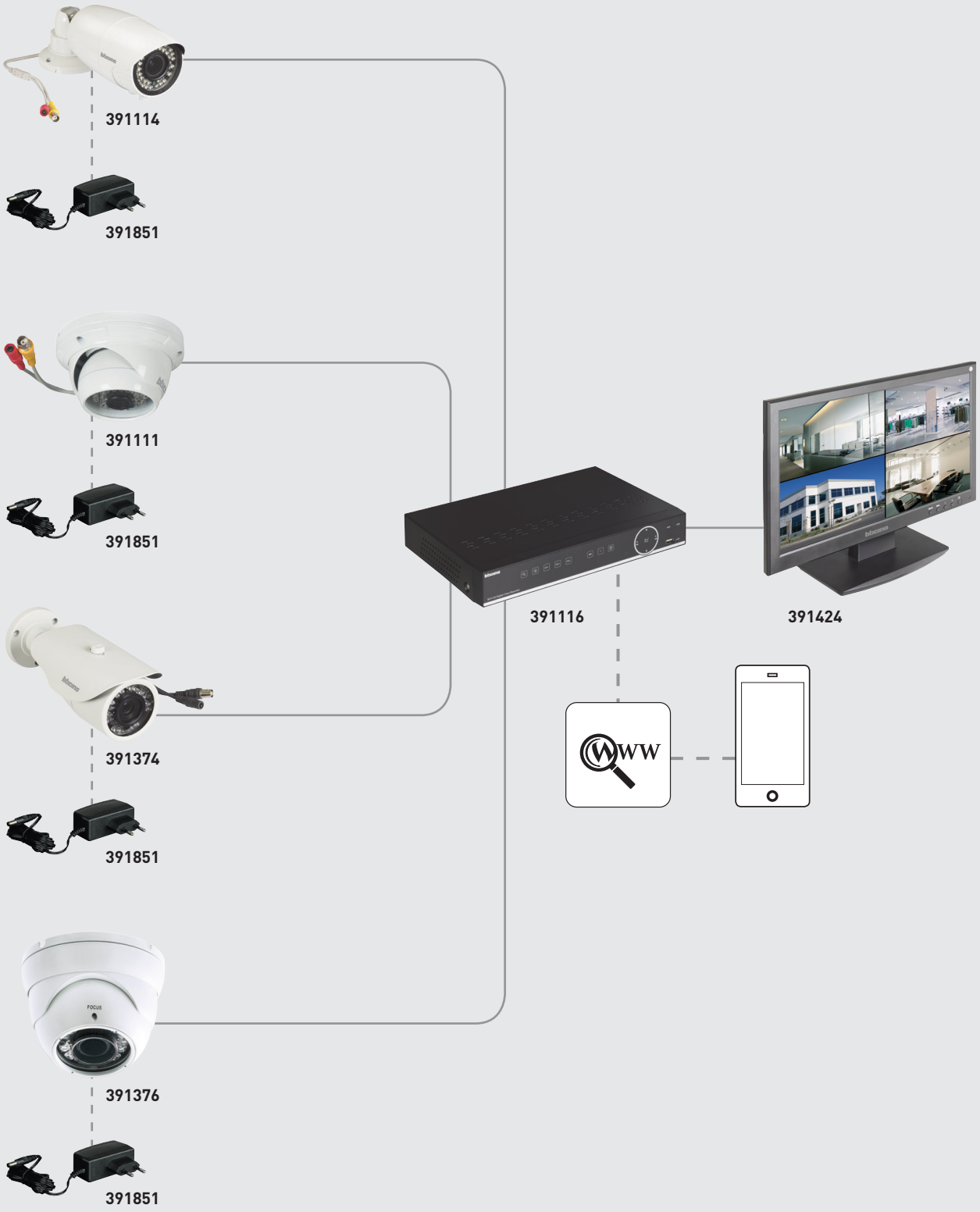
CABLE

NOTES:

Provide a suitable power supply on the basis of the type of camera.

Provide power supply cables of adequate cross-section in relation to the distance and the consequent drop in voltage.

AHD and analog mixed system

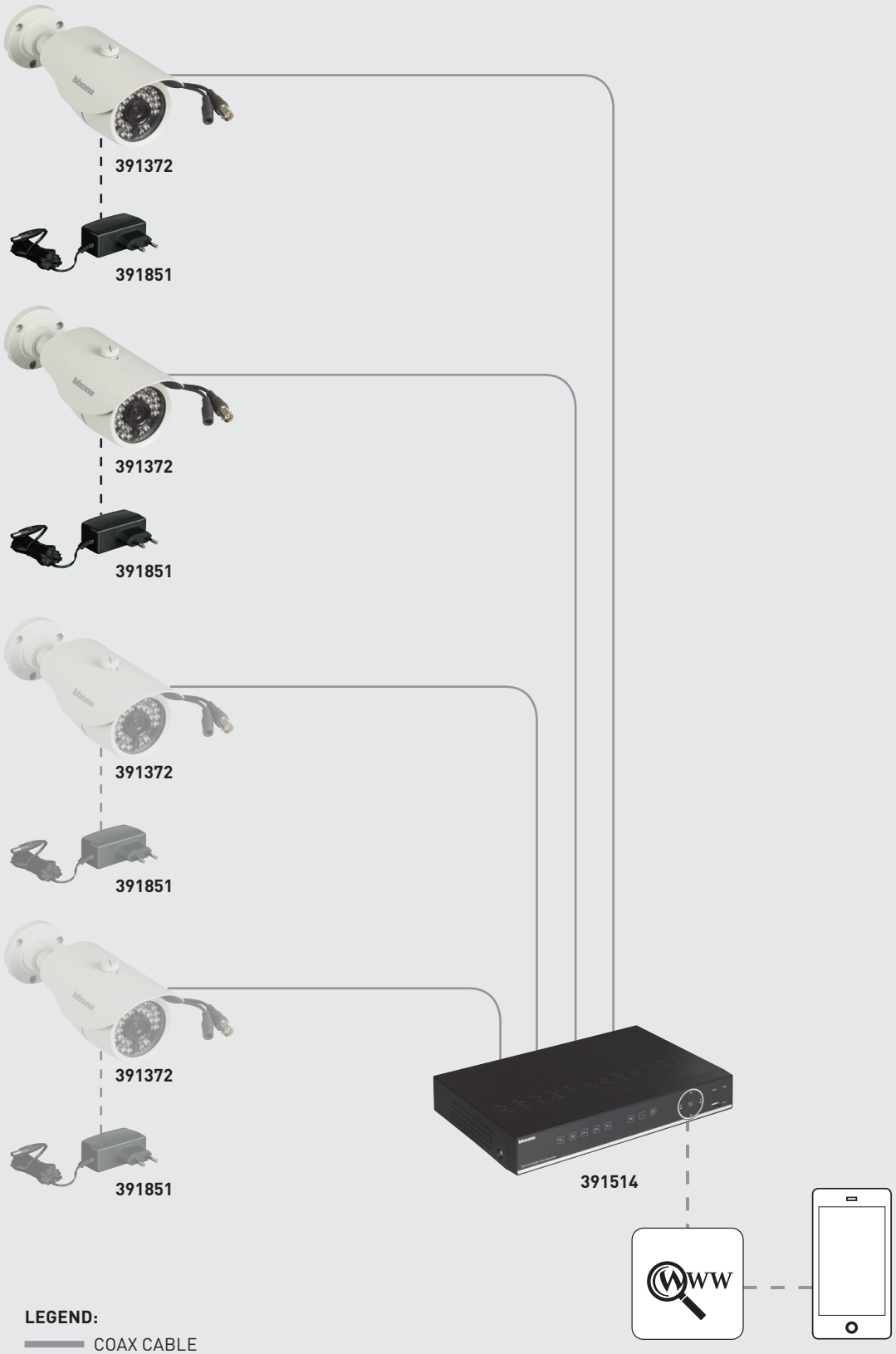


LEGEND:

COAX CABLE

SYSTEM EXAMPLES

Analog kit which can be expanded up to 4 cameras item 391902



LEGEND:

COAX CABLE

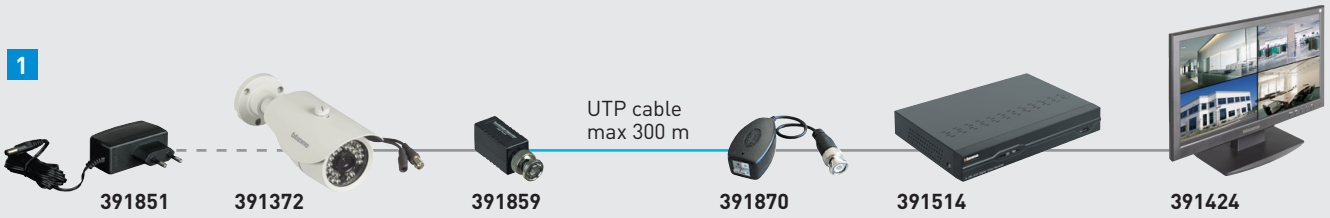
NOTES:

1) Analog kit which can be expanded up to 8 cameras item 391903

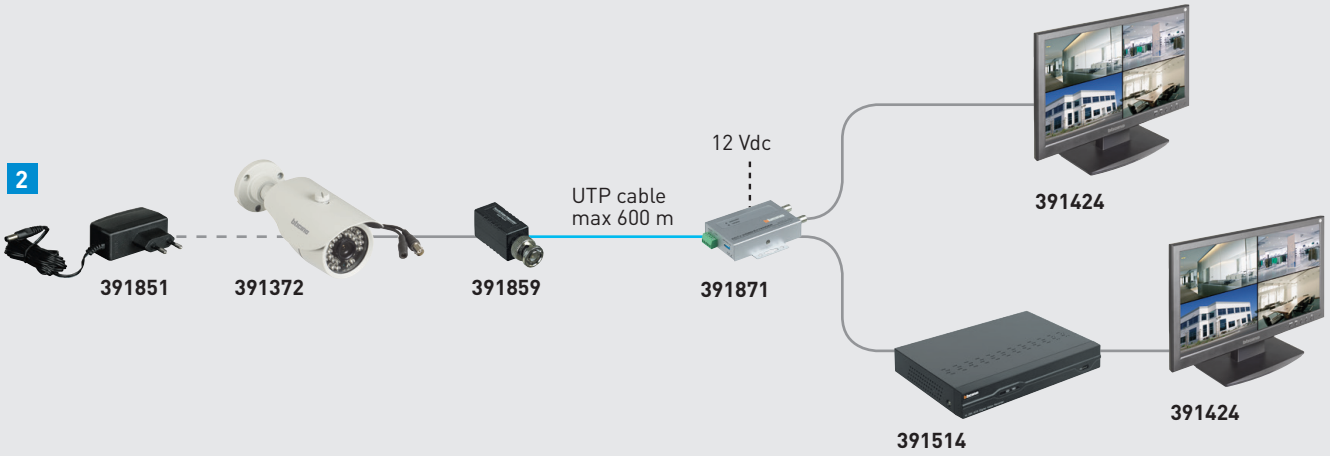
2) Provide power supply cables of adequate cross-section in relation to the distance and the consequent drop in voltage.

Only video transmission on UTP cable (analog)

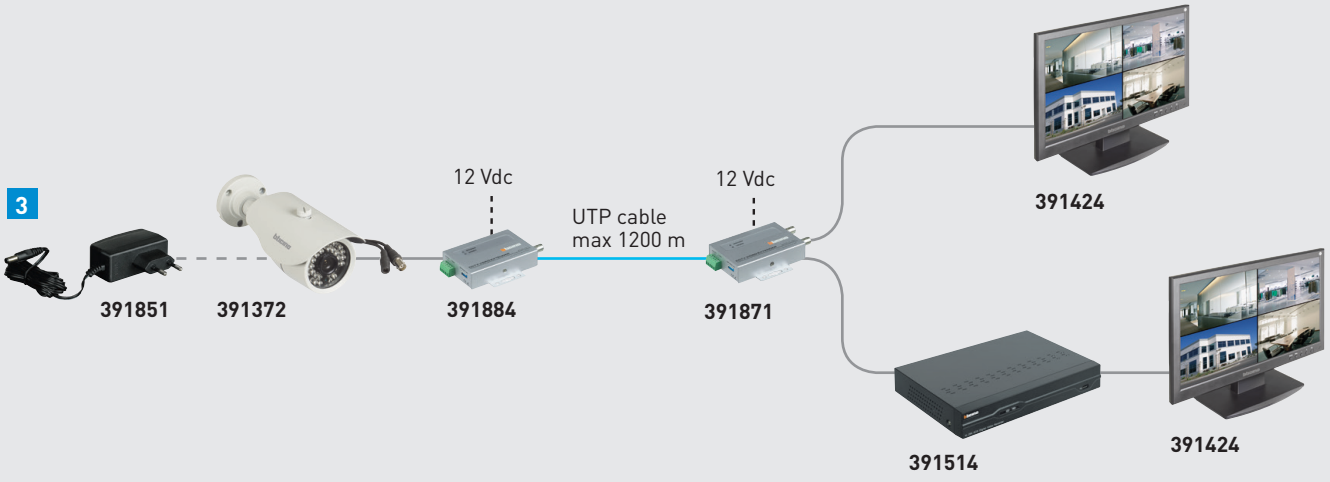
1



2



3



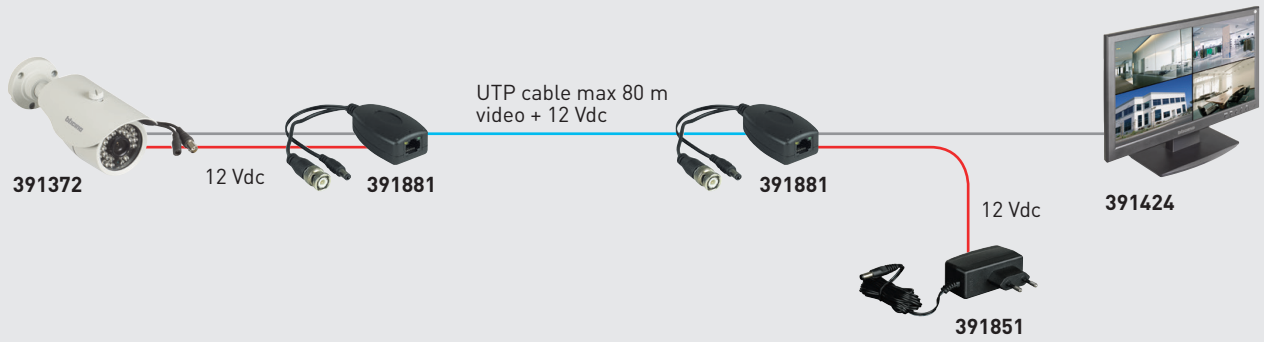
LEGEND:

COAX CABLE

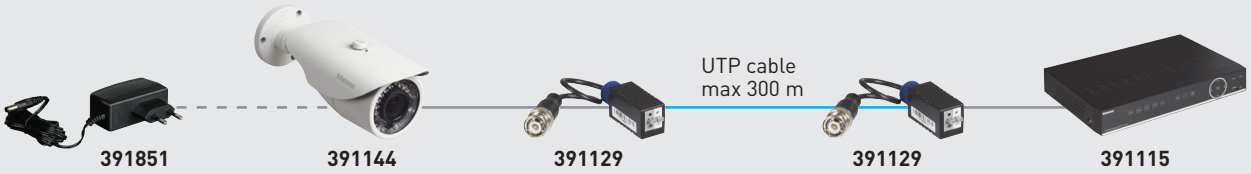
U/UTP CABLE

SYSTEM EXAMPLES

Analog video transmission and power supply 12 Vdc



Only video transmission on UTP cable (AHD)



LEGEND:

- COAX CABLE
- U/UTP CABLE
- CABLE

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AD-EXTC16C/GB - Version 07/2016

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