# CCTV SOLUTIONS

# SIMPLY PROTECT





INCLUS PAGES



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# Analog, IP or composite solutions: to identify the solution which is best suited to your requirements,

you should:

define the areas of major safety concerns and detail what is to be monitored;

- for each area that needs to be monitored define the detail of the images in question (image quality) and the level of lighting;
- define the basic characteristics of the video cameras;
- consider the advantages of a wired structure in regards to the traditional structure.



**Small installation** Small business, car garage

↓ ANALOG SOLUTION 1 VIDEO CAMERA Plug&Play Kit



Small/medium installation Business, parking

Υ

STANDARD: ANALOG SOLUTION The standard being from two to sixteen video cameras

**IP SOLUTION** for high resolution



Small/medium installation Supermarket

 $\downarrow$ 

**MIXED SOLUTION** CCTV/IP with wire structuring



Broad installation Shopping centre

**IP SOLUTION** With wire structuring





**THE ADVANTAGE OF IP TECHNOLOGY** Thanks to high definition (HD et Full HD), a scene filmed in "recognition" mode can be zoomed to enable persons to be identified.

# OBJECTIVES AND FUNCTIONS OF A CLOSED CIRCUIT TELEVISION SYSTEM

#### **Guarding of property**

Allowing an area to be open to the public while providing protection against theft in shops, car parks or enclosures. The CCTV system facilitates live or delayed (when recording) monitoring of one or more areas of the building.

Enclosure, car park, sales area, etc.

#### **Access monitoring**

Monitoring access to buildings or premises outside opening hours can not only detect intrusions, but also trace incidents or malicious acts. During periods when the building is in use, the CCTV system enables you to manage the opening of accesses by detecting the presence of a person near to an exit, or by working in conjunction with visitor access controls.

Recording access to a building

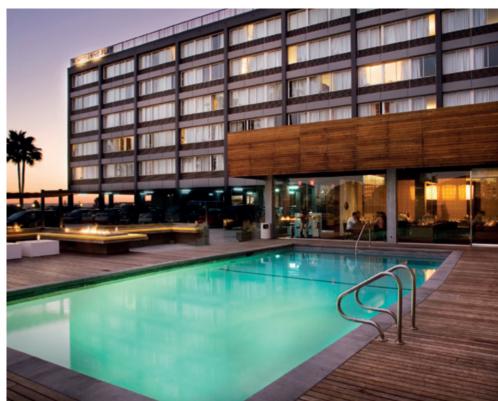
#### **Event monitoring**

When connected to other systems installed in a building or premises, the CCTV system can display the images from a camera associated with a specific event.

- Intrusion: immediate verification and recording on detection of intrusion
- Fire: verification of the presence of fire in the area concerned
- Technical alarm: verification of a technical problem with the machinery







#### Filming

The main function of a camera is to film a scene live.

For example, it may be interesting to show customers in a shop that the premises are monitored by CCTV by visibly displaying the images on a screen connected directly to a camera. Besides being a deterrent, it allows shop workers to keep an eye on one or more scenes from a single location in the store.

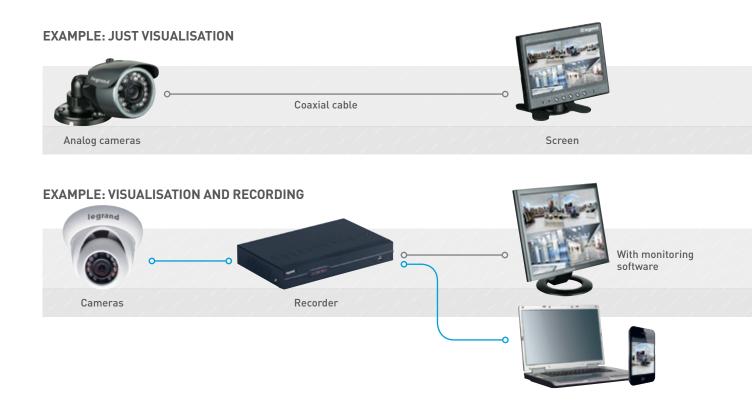
#### Recording

Depending on the sensitivity of the scene to be visualised (or the type of building), it may also be necessary to save the images. This enables you to review the events that take place in order to better interpret them (in the case of shoplifting, for example).

**Be careful** not to fall into the trap of continuous recording: in addition to (relatively) quickly filling the hard drive, it also complicates the search for a specific event among the recordings. Recordings should be programmed, as is relevant, focusing, for example, on access to the site during certain hours.

#### Visualising and analysing

Whether it is accessing the video channel for one or multiple recorders or accessing their recordings, it is possible to install dedicated video surveillance software at one or more locations (e.g. control station, police station, etc.). Visualisation can also be performed from a remote location using a smartphone or computer to enable monitoring at your leisure.



# EXAMPLES OF IMPLEMENTATION OF A CLOSED CIRCUIT TELEVISION SYSTEM

#### Shops

This is to monitor and record just a few areas (usually the main entrance, product display area and cash register).

An effective solution is offered by CCTV kits, expandable up to 4 cameras. Simple and discreet, thanks to their compact size, they allow remote viewing.



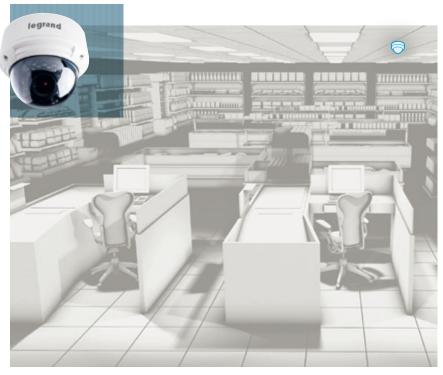
#### **Supermarkets**

This type of establishment necessitates the monitoring and video recording of numerous small and large areas, both internally and externally.

The usual requirements for external areas are: surveillance of the stock loading/unloading area and car parks.

The internal areas to be monitored are: the product display areas, check out and warehouse.

The solution is a bespoke design where all devices are monitored and controlled from a monitoring station.



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#### Warehouses

This type of establishment necessitates the monitoring and video recording of various small and large areas, both internally and externally.

The usual requirements for external areas are: surveillance of stock loading/ unloading areas, the sides of the building and parking lots.

The internal areas to be monitored are: the warehouse and the loading/unloading area.

The solution is a bespoke design, where all devices are monitored and controlled from a local switchboard or a reception, with an operator present during the day. If necessary, it is possible to centralise the remote management of several sites.







# SELECTION AND CHOICE OF A CLOSED CIRCUIT TELEVISION SYSTEM

When installing a simple CCTV system, we recommend that you follow the four steps below. If the installation has to meet stricter safety requirements, please contact your local Legrand sales office.

#### Step 1

#### DEFINITION OF THE NUMBER OF AREAS TO MONITOR

Perform a study with your client using a map of the area to be monitored.

#### Step 2

#### SPECIFICATION OF THE EXPECTED RESULTS FOR EACH AREA TO BE MONITORED

The expected results should be agreed with the customer for each area to be monitored. In most cases, this will be one of the following objectives: identification, recognition, detection of intrusions.

For a description of the expected results, please refer to standard EN 50132-7, of which the following is an extract:

The size of an object/target on the monitor screen should have a relation to the operator task, for example:

identification (facial identification), recognition (complete identification) or monitoring (overview).

If the target is a person and the CCTV system has an installed limiting resolution of better than 400 TV lines, the recommended minimum sizes of this target are:

#### a) for identification

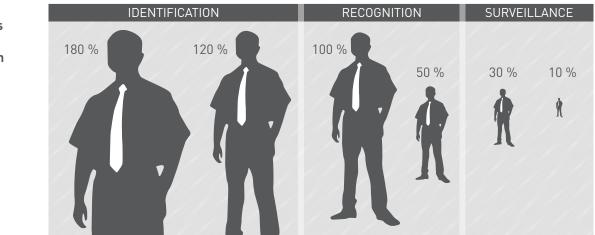
(facial identification), the target should represent not less than 120% of the image height.

#### b) for recognition

(complete identification), the target should represent not less than 50% of the image height.

#### c) for monitoring

(overview), the target should represent not less than 10% of the image height.



The figure opposite shows the relative size of a person (target) on the screen.



#### Step 3

# SPECIFICATION OF THE NUMBER OF CAMERAS AND THEIR POSITIONS:

The quantity of results expected determines the number of cameras required. For each camera, the most suitable installation position must be identified according to the following parameters: the size of the objects to be observed (expected results), the distance between them and the installation requirements for the camera (internal/external, wall/ceiling/flush-mounting, etc.).

### 

#### Ensure that the cameras are used in accordance with the laws and regulations in force, both in terms of privacy and staff safety.

- The images, sounds, voices and names recorded are personal - and sometimes sensitive - data - which may also be protected by copyright or third party intellectual property rights.
- Therefore, any person using the equipment must comply with the following:
- strict compliance with legislation regarding the protection of personal data;
- respect for data security obligations;
- respect for image and representation rights, as well as all requirements in terms of copyright and intellectual and industrial property rights.
- Legrand cannot be held responsible for any illegal use of its products by its customers.

#### Step 4

# SELECTION OF THE MOST APPROPRIATE EQUIPMENT TO ACHIEVE THE DESIRED RESULTS:

It is now possible to identify the necessary products for installation of the system: cameras, video recorders, screens, accessories.

#### CAMERAS:

Once all the information from the previous step has been gathered, it is possible to identify the most suitable compact cameras, using the simple user tables provided for this family of products.

If compact cameras cannot be used due to the requirements of certain applications, high performance modular cameras are also available. For each one, it is possible to select the most suitable accessories (e.g. supports, housings, IR illuminators, lenses).

#### **DIGITAL VIDEO RECORDERS:**

To be selected based on the number of cameras to be connected and the secondary functions provided.

#### SCREENS:

To be selected based on display dimensions and available space.

# THE CAMERAS KEY PRODUCTS IN A CLOSED CIRCUIT TELEVISION SYSTEM

As the cameras do not all offer the same "visualisation" function, it is important to carefully select an appropriate camera, taking into account the following points:

#### THE INSTALLATION ENVIRONMENT

- Waterproof products (IP 55 or IP 66) can be installed outdoors.
- If there is a risk of defacement, products must be vandal resistant (IK 10).
- Compact and modular cameras remain visible, while dome cameras, mini-cameras and hidden cameras facilitate covert surveillance.

#### THE SCENE TO BE FILMED

- How far is the scene to be filmed from the location where the camera is to be installed?
- What are the dimensions of the scene to be filmed?
- Are the dimensions fixed and precise (door or entrance)?
   -> Fixed or adjustable focal length.
- Are the dimensions variable (wide angle and zoom)?
   -> Camera with zoom or high resolution camera (megapixels).
- Is the scene wider than the camera's field of view?
- -> Motorised dome camera

#### Examples





Visitors should be informed that a site has CCTV

#### Day image

Night image





Day images





CORRECT POSITIONING OF THE CAMERA: the image remains crisp and clear, regardless of the position of the sun.

Night image





INCORRECT POSITIONING OF THE CAMERA: an intense light source is located in the image field. It would be preferable to position the camera in such a way as to exclude the light source from the field.

EXAMPLES: BRIGHTNESS VALUES	
Direct sunlight	50,000 lux
Indirect light on a clear day	10,000 - 20,000 lux
Daylight on a cloudy day	1,000 - 5,000 lux
Inside an office	200 - 500 lux
Minimum illumination for comfortable reading	300 lux
Corridor and outdoor work area lighting	50 - 100 lux
Sunset	10 lux
Major road lighting	15 lux
Secondary road lighting	5 lux
Sunset (beginning)	10 lux
Sunset (end)	1 lux
Full moon	0.3 lux
Crescent moon	0.1 lux

#### INSTALLATION RECOMMENDATIONS

 Install the cameras at a height of 3 to 4 metres.

The camera stand (housing, support, etc.) should enable it to be electrically insulated from the ground (to avoid ground loops).

■ The camera must be connected to the power supply with strict regard for phase and neutral, as cameras connected to alternating current (230 V) use the network's 50 Hz frequency for synchronisation: if all the cameras are connected correctly, they will also be synchronised.

Performance of the lighting systems strongly depends on the type of surfaces illuminated (reflectance) and the spectrum of light generated. When choosing the type of camera, you should take into account the fact that colour cameras require 10 times more light than black and white cameras. The amount of light on the scene to be observed should in practice be 10 times the minimum quantity of light required by the camera. The reference parameter to consider in order to choose the correct camera based on the available light is the "sensitivity" of the camera. The following table gives the brightness values for certain specific conditions.

# RECORDERS KEY PRODUCTS IN A CLOSED CIRCUIT TELEVISION SYSTEM

Insofar as it is impossible to constantly monitor all installations, scenes should be recorded for later review. Digital video recorders complete a CCTV installation and must be chosen according to the following criteria:

#### NUMBER OF CAMERAS

The type and number of recorders are determined by the number of cameras for which images must be recorded. However, in cases where the number of installed cameras is expected to increase, we recommend that this upscaling be taken into account by choosing a recorder with a larger number of inputs. When the total number of cameras is greater than or equal to the capacity of a 16-input recorder (analog or IP), it is still possible to use one (or more) central management point(s) as long as the recorders are connected to the same network (local or remote).

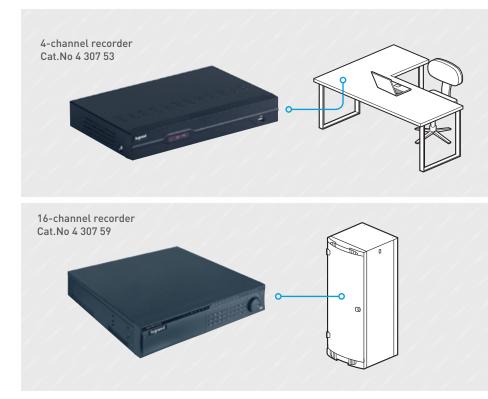
#### **TYPE OF RECORDING**

Whether you want continuous or event-related recording, the duration of data retention and image quality determine the size of the storage medium (hard disk).

Some recorders also offer the ability to add hard disks, while others do not.

#### POSITIONING

The installation location of the recorder is an important factor to bear in mind: need to access the controls on the front (or vice versa), installation in a computer cabinet or housing, direct installation into a rack.



# SCREENS KEY PRODUCTS IN A CLOSED CIRCUIT TELEVISION SYSTEM

Analysis or verification of a scene may be performed:

#### LIVE

The image from the camera is transmitted to a screen or to another remote video support.

#### RECORDED

The image is stored by the recorder for viewing on demand. However, it is possible to combine the two modes of use, i.e. a recorded scene can be displayed directly on the screen.

#### LOCAL

The screen is connected directly to the camera or the recorder.

#### REMOTE

Internet-based visualisation via a PC or a smartphone.

#### SINGLE CHANNEL OR MULTICHANNEL MODE

The recorders allow simultaneous viewing of multiple video channels on one screen (windowing).



# TRANSMISSION AND CONNECTION KEY PRODUCTS IN A CLOSED CIRCUIT TELEVISION SYSTEM

This function ensures the link between the above functions.

You should select whether the installation will be analog or IP:

#### AN ANALOG VIDEO SIGNAL CAN BE TRANSMITTED:

#### Via coaxial cable:

this is an easy to implement solution requiring no additional programming or products. The length of each connection is limited to 300 m.

#### Via twisted pair (FTP):

this can be integrated into the structure's wiring and enables you to switch to an all-IP solution. Transmitters and receivers (baluns) must then be installed at each end of the connection. By using amplified transmitters and receivers, the length of the connection can be increased to 1200 m. The power supply to these units is typically 12 V and can be provided:

- Via an independent power supply for each camera, located close-by.

- Via a centralised power supply for multiple cameras. Connection to the above system can be achieved using composite cables integrating the coaxial cable and two power cables. Choosing twisted pair (PoA) for powering analog cameras enables migration to an IP or PoE solution when connecting to the same network (local or remote).

# AN IP VIDEO SIGNAL MUST BE TRANSMITTED:

#### ■ Via twisted pair (FTP):

enabling the installation of several other cameras if the IP installation has been correctly dimensioned. The power supply to these units is typically 12 V and can be provided:

- Via an independent power supply for each camera, located close-by.

- Via a centralised power supply for multiple cameras. Connection to the above system can be achieved using composite cables integrating the coaxial cable and two power cables.

- Via the network, if it is PoE (Power over Ethernet) compatible.

# GLOSSARY

#### Advanced automatic path:

Similar to the single automatic path function, except that the movement follows a path which can be programmed in any direction. For example,

it can be programmed by saving a manual path from the control station.

#### Compact or all-in-one:

Camera supplied with lens and mechanism already affixed.

The form of the mechanism allows for wall-mounting and it is usually equipped with protection to prevent rain water from entering.

#### Dome:

Camera supplied with lens and mechanism already affixed. The format of the mechanism allows mounting on the ceiling or a suspension arm. The translucent dome masks the camera angle.

#### **Fixed Focus:**

Lens with fixed focal length and camera angle.

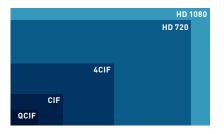
#### Focal length:

This value, measured in millimetres, is directly related to the angle of observation. A short focal length offers a wide-viewing angle, while a long focal length offers a telephoto effect with a smaller viewing angle.

#### Image quality:

An image is defined by its resolution. There are 6 formats (the values in brackets are in pixels):

- QCIF (176 x 144)
- CIF (352 x 288)
- 2CIF (704 x 288)
- 4CIF (704 x 576)
- HalfD1/HD1 (360 x 576)
- D1/fullD1 (720 x 576)
- HD 720 (1280 x 720)
- HD 1080 (1920 x 1080)
- ■WD1/960H (960 x 576)



#### Mini-camera:

The camera is supplied complete with lens and can easily be concealed because of its small size.

#### Modular camera:

Camera supplied without lens, so an appropriate lens can be affixed.

#### Motorised camera:

Camera capable of extremely fast movement. It can change position very quickly and follow the movements of any object/target.

#### PoA (Power over Analog):

Supplies power to an analog camera via a twisted pair cable. Requires the installation of baluns at the camera.

#### PoE (Power over Ethernet):

Supplies power to an IP camera via the network cable. Requires the installation of a PoE injector as power supply.

#### **Recording quality:**

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

#### **Resolution:**

The resolution indicates the quality of the image reproduced. The quality of the image captured by a camera is defined by the number of vertical lines. The current industry standard regarding the resolution of CCTV cameras is 330 lines for colour cameras and 380 lines for black and white cameras. The number of lines that a camera must produce to be termed a "high resolution" camera is not defined by any standard. According to current manufacturing standards, a "high resolution" colour camera generally provides more than 420 lines, while a "high resolution" black and white camera provides more than 480 lines.

#### Sensitivity:

This refers to the camera's ability to reproduce a video signal with a particular brightness value, which is the minimum amount of light (measured in lux) necessary to obtain a video signal. The higher the sensitivity of the camera, the lower the quantity of light required to obtain a video signal. A high-sensitivity camera will also require less light to obtain a good video image. Be careful not to confuse the minimum required quantity of light (sensitivity) with the ambient lighting. Although these two values are both measured in lux, the amount of light detected by the camera is that reflected by objects and not that coming from the ambient lighting.

#### Simple automatic path:

the motorised camera moves automatically along a programmable path that is repeated cyclically. The movement follows linear paths between predetermined intermediate points.

#### Types of screen connection:

The maximum resolution depends on the connection type.

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

#### Varifocal:

Lens which enables manual adjustment of the focal length. These lenses are designed to be light and compact and can be used in numerous situations. For example, if a 6 mm fixed lens is required, a 3.5-8 mm varifocal lens, adjusted to be fixed at 6 mm, could be used.

#### Zoom:

Lens which enables the physical characteristics of its focal length to be modified in order to cover a great distance. These lenses are classified according to their magnification ( $x_6$ , x10, etc.). Manual and motorised versions are available on the market.

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# IP network insist on reliable and scalable solutions

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#### IP CAMERAS ADAPTED TO YOUR NETWORK

To implement high-quality IP solutions, it is vital to have a reliable bandwidth which ensures a certain level of output. With Legrand cameras, you only need 1.5 Mbps to 4 Mbps of bandwidth to get a high-quality image.

#### **A SCALABLE SOLUTION**

Legrand solutions are scalable and allow you to manage an analog installation and an IP system using the same software.

Our IP products are ONVIF-compliant to enable them to be integrated into third-party software for integrators.





The Open Network Video Interface Forum (ONVIF) is an industry group dedicated to the development of standards relating to open IP video networking enabling the use of compliant products over non-proprietary networks.

Please note Legrand offers on its products the ONVIF 2/Profil S on cameras and NVR.

Do not hesitate to contact us in order to know if the installation you are about to set up is compliant with our products.

### **CCTV** kit

Compact and dome cameras

Standard and high resolution DVR, VMS software

Baluns, power supply, wiring accessories

Monitors

Dome and compact cameras

Motorised and modular cameras

Accessories encoders

Network video recorders, monitors, VMS software

Legrand cabling system LCS<sup>2</sup>

# **ANALOG CCTV**



P. 18 Kit 17" and 7"



P. 19 Kit complementary equipment, compact cameras and monitors



P. 19 Kit complem sories



P. 28 Compact and dome cameras



P. 30 Motorised cameras and accessories



P. 31 Special and modular cameras, accessories



P. 34 Standard DVR



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P. 35 VMS software



P. 36 Baluns



P. 37 Power supply





P. 39 LCD color monitors 7", 17", 19"



P. 39 LCD color monitors 22", 32"

# **IP CCTV**



P. 44 Dome cameras



P. 45 Compact cameras



P. 46 Motorised cameras



P. 46 Modular cameras



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P. 52 LCD color monitors 17", 19", 22", 32" P. 53 VMS software

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P. 54 Cables



19" LCS2 cabinets



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# CHOOSE YOUR ANALOG CAMERA



The table opposite shows how to go about choosing your camera on the basis of the positioning distance and type of visualization required.

#### **4 TYPES OF CAMERA:**

#### Compact:

camera supplied with lens and mechanism already affixed. Wall mounting

#### Dome:

camera supplied with lens and mechanism already affixed. Wall mounting or suspension arm.

#### Special:

camera equipped for a specific function, e.g. a smoke detector

#### Motorised:

camera capable of extremely fast movement. Able to follow the movements of any object/target.

#### 2 TYPES OF LENS:

Fixed:

fixed lens aperture.

#### Varifocal:

enables manual adjustment of the focal length.

For example, if a 6 mm fixed lens is required, a 3.5-8 mm varifocal lens, adjusted to be fixed at 6 mm, could be used.

#### TYPE OF VISUALISATION

	1.2 m to 1.5 m
	2 m
CAMERA WITH FIXED LENS	3 m
-	5 m
Distance between the camera and the target to be filmed.	6 m
	10 m
	13 m
	20 m
	1.5 m to 3 m
CAMERA WITH	3 m to 4 m
VARIFOCAL LENS - Distance	4 m to 7 m
between the camera and the target to be filmed.	7 m to 15 m
	15 m to 30 m
	30 m to 60 m

NARROW SHOTS (Identification)	NARROW SHOTS (Recognition)	WIDE SHOTS (Classification)	WIDE SHOTS (Detection)
1.5 m	 2.7 m   3.6 m —	6 m 8 m	13 m 
Compact: Cat.Nos 4 305 12/40 Dome: Cat.Nos 4 305 00/01/03/05 Special: Cat.Nos 4 305 35/36/39	-	-	-
<b>Compact:</b> Cat.No 4,305 14	<b>Dome:</b> Cat.No 4 305 00	-	-
-	Compact: Cat.Nos 4 305 12/40 Dome: Cat.Nos 4 305 00/01/03/05 Special: Cat.Nos 4 305 35/36/39	-	-
-	<b>Compact:</b> Cat.No 4,305 14	<b>Dome:</b> Cat.No 4 305 00	-
-	-	Compact: Cat.Nos 4 305 12/40 Dome: Cat.Nos 4 305 00/01/03/05 Special: Cat.Nos 4 305 35/36/39	-
-	-	Compact: Cat.No 4,305 14	-
-	-	-	Compact: Cat.Nos 4 305 12/40 Dome: Cat.Nos 4 305 00/01/03/05 Special: Cat.Nos 4 305 35/36/39
-	-	-	<b>Compact:</b> Cat.No 4,305 14
<b>Compact:</b> Cat.Nos 4 305 11/16/15/42/44	-	-	-
Dome: Cat.Nos 4 305 02/04/06/08/20/07/09 Motorised: Cat.Nos 4 305 21/22/23/24/25/34	Compact: Cat.Nos 4 305 11/16/15/42/44 Dome: Cat.Nos 4 305 02/04/06/08/20/07/09	-	-
	<b>Motorised:</b> Cat.Nos 4 305 21/22/23/24/25/34	Compact: Cat.Nos 4 305 11/16/15/42/44 Dome:	-
Motorised: Cat.Nos 4 305 21/22/23/24/25/34	<b>Motorised:</b> Cat.Nos 4 305 21/22/23/24/25/34	Cat.Nos 4 305 02/04/06/08/20/07/09 <b>Motorised:</b> Cat.Nos 4 305 21/22/23/24/25/34	<b>Compact:</b> Cat.Nos 4 305 11/16/15/42/44 <b>Dome:</b> Cat.Nos 4 305
<b>Motorised:</b> Cat.Nos 4 305 22/23/24/25/34		Motorised:	02/04/06/08/20/07/09 <b>Motorised:</b> Cat.Nos 4 305 21/22/23/24/25/
Motorised: Cat.No 4,305 25	Motorised: Cat.Nos 4 305 22/23/24/25/34	Cat.Nos 4 305 21/22/23/24/25/34	<b>Motorised:</b> Cat.Nos 4 305 21/22/23/24/25/

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CCTV kit: 7"



### CCTV kit: complementary equipment



#### Technical characteristics p. 72

Pack	Cat.Nos	Indoor cameras	Pack	Cat.Nos	LCD monitors
1		Indoor Day & Night minicamera, 3.6 mm lens Sony 1/3" sensor, resolution 420 TV lines Min. illumination of 0.05 lux IP 30 / IK 07 Power supply: 12 Vdc max. 120 mA, not supplied Indoor Day & Night dome camera, 3.6 mm lens Sharp 1/3" sensor, resolution 540 TV lines	1		7" LCD color monitor with adjustable table support and IR remote control supplied Power supply: 12 Vdc (Power supply supplied) 17" active matrix color TFT LCD Monitor Picture format: 4:3, optimal resolution of 1280 x 1024 Terminals: BNC (IN/OUT), DC VGA, S-VIDEO Power supply: 12 Vdc (Power supply supplied)
		Min. illumination of 0.05 lux IP 30 / IK 07			Power supplies
		White body camera Power supply: 12 Vdc max. 70 mA, not supplied	1	4 306 01	Stabilised power supply in plastic housing Input: 230 Vac, output: 12 Vdc-2.5 A
		Outdoor cameras			Protection rating: IP 30 Protection rating against mechanical impact: IK 05
1	4 305 12	Outdoor Night & Day camera, 3.6 mm lens CMOS 1/3" sensor, resolution 600 TV lines LED illumination distance 20 m	1	4 306 02	Stabilised power supply in DIN plastic housing (4 modules) Input: 230 Vac - 50 Hz, output: 12 Vdc - 4.5 A
		Min. illumination 0 lux sensitivity with IR LED ON IP 66 / IK 06	1	4 306 00	Plug-in power supply: 12 Vdc - 0.5 A
		Grey/black body camera with fixing bracket			Miscellaneous accessories
		supplied Power supply: 12 Vdc max. 315 mA with IR LED ON, not supplied	1	4 306 05	Passive UTP video balun, maximum distance of up to 300 metres between the transmitting balun and
1	4 305 42	Outdoor Day & Night camera with ICR, 2.8-12 mm varifocal lens			the receiving balun, and up to 600 metres between the transmitting balun and the active video receiver (Cat No. 4 2002)
		Sony 1/3" sensor, resolution 700 TV lines LED illumination distance 35 m	10	4 306 14	(Cat.No 4 306 07) BNC connector with plastic housing
		Min. illumination 0 lux with IR LED ON	1 5	4 306 16 4 306 20	Crimping tool Video surveillance sign in English
		IP 66 / IK 07 (except glass IK 06) Light Black body camera with fixing bracket	10 10	4 306 18	12 V plug connector with screw terminals 12 V plug connector with cable
		supplied Power supply: 12 Vdc max. 430 mA with IR LED ON,	1	4 305 87	IR LED for indoor/outdoor powered at 12 Vdc 30 m
		not supplied			

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### Choosing the right devices

range of compact and dome cameras

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Image: set of the						
Index control IP DEGREEIndex control IP 030Index control IP 060Index control IP 060Index control IP 060Index control IP 060TV LINES3303304420442046006001000CCD DIMENSIONS114"113"113"113"113"113"113"LENS (MM)3.64.49 varifocal3.663.63.610001000SENSITVITY (LW)0.50.50.0000.0000.0000.00010001000VDR0.50.50.0000.0000.0000.000100010001000SIN RATIO (DB)>48>50>48>50200x78x783.62x142100001000010000BLC0.50.0000.00000.00000.00000.000010000100001000010000AUTORIS0.00000.00000.00000.00000.00000.0000100001000010000PIVACY ZONE12.000012.000012.000012.000013.500013.500013.500013.500013.500013.500013.5000PIVARS UPLY12.000012.000012.000013.500013.500013.500013.500013.500013.500013.500013.5000PIVARS UPLY12.000012.000013.500013.500013.500013.500013.500013.500013.500013.5000PIVARS UPLY12.000013.500013.500013.500013.5000 <th></th> <th>4 305 10</th> <th>4 305 11</th> <th>4 305 13</th> <th>4 305 14</th> <th>4 305 12</th>		4 305 10	4 305 11	4 305 13	4 305 14	4 305 12
Image: Market is a state in the state in the state is a state in the state in the state is a state in the state	USE	INDOOR	OUTDOOR	OUTDOOR	OUTDOOR	OUTDOOR
Image: Column biase         Image: Columbiase         Image: Columbiase	IP DEGREE	IP 30	IP 66	IP 66	IP 66	IP 66
Image: Methy is a state of the state	TV LINES	330	330	420	420	600
Image: A construction       Image: A construc	CCD DIMENSIONS	1/4"	1/3"	1/3"	1/3"	1/3"
NURRImage: Constraint of the state of the st	LENS (MM)	3.6	4-9 varifocal	3.6	6	3.6
ICR	SENSITIVITY (LUX)	0.5	0.5	0 IR ON	0 IR ON	0 IR ON
Action (DB)Add (C)Add (C)Add (C)Add (C)Add (C)S/N RATIO (DB) $> 48$ $> 50$ $> 48$ $> 50$ $> 48$ $> 62 \times 142$ $> 50$ $> 48$ $> 62 \times 142$ $200 \times 78 \times 78$ $62 \times 142$ <	WDR					
Image: Marcine and	ICR					
L X L X H (MM)26 X 89.335 X 15062 X 142200 X 16 X 15602 X 142100 X 16 X 16BLCYESYESImage: Second	S/N RATIO (DB)	> 48	> 50	> 48	> 50	> 48
AUTOIRISImage: state of the stat	DIMENSIONS L X L X H (MM)	28 x 89.5	33 x 130	62 x 142	200 x 78 x 78	62 x 142
PRIVACY ZONE     Image: Constant of the second	BLC		YES			
POWER SUPPLY     12 Vdc 120 mA     12 Vdc 160 mA     12 Vdc 315 mA (IR ON)     12 Vdc 420 mA (IR ON)     12 Vdc 315 mA (IR ON)	AUTOIRIS					
POWER SUPPLY         12 VdC 120 mA         12 VdC 160 mA         315 mA (IR ON)         420 mA (IR ON)         315 mA (IR ON)	PRIVACY ZONE					
NOTE IR 20 m IR 25 m IR 20 m	POWER SUPPLY		12 Vdc 160 mA	315 mA	420 mA	315 mA
1: For the abbreviation used for describing the features of the cameras see p. 27	NOTE			IR 20 m	IR 25 m	IR 20 m

COMPACT							
4 305 17	4 305 15	4 305 41	4 305 40	4 305 42	4 305 43	4 305 44	
OUTDOOR	OUTDOOR	OUTDOOR	OUTDOOR	OUTDOOR	OUTDOOR	OUTDOOR	
 IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
540	600	600	700	700	700	700	
 1/3"	1/3"	1/3"	1/3"	1/3"	1/3"	1/3"	
10-65 varifocal	2.8-12 varifocal	9-22 varifocal	3.6	2.8-12 varifocal	9-22 varifocal	2.8-12 varifocal	
0 IR ON	0 IR ON	0 IR ON	0 IR ON	0 IR ON	0 IR ON	0 IR ON	
						YES	
				YES	YES	YES	
> 48	> 52	> 52	> 50	> 52	> 52	> 54	
325 x 140 x 250	294 x 90 x 99	311 x 98 x 99	130 x 56 x 56	294 x 90 x 99	311 x 98 x 99	294 x 90 x 99	
	YES			YES	YES	YES	
YES						YES	
				8	8	20	
230 V 78 mA IR ON	12 Vdc 450 mA (IR ON)	12 Vdc 300 mA (IR ON)	12 Vdc 200 mA (IR ON)	12 Vdc 430 mA (IR ON)	12 Vdc 470 mA (IR ON)	12 Vdc 480 mA (IR ON)	
 IR 100 m	IR 35 m	IR 50 m	IR 20 m	IR 35 m	IR 50 m	IR 35 m	

### Choosing the right devices

range of compact and dome cameras

	4 305 00	4 305 01	4 305 07	4 305 05	4 305 20	
USE	INDOOR	INDOOR	OUTDOOR	OUTDOOR	OUTDOOR	
IP DEGREE	IP 30	IP 30	IP 66	IP 66	IP 66	
TV LINES	420	540	600	600	600	
CCD DIMENSIONS	1/3"	1/3"	1/3"	1/3"	1/3"	
LENS (MM)	2.8	3.6	2.8-12 varifocal	3.6	2.8-12 varifocal	
SENSITIVITY (LUX)	0.1	0.05	0 IR ON	0 IR ON	0 IR ON	
WDR						
ICR						
S/N RATIO (DB)	> 50	> 48	> 52	> 52	> 52	
DIMENSIONS L X L X H (MM)	128 x 91	125 x 50 x 43	130 x 112	94 x 80	120 x 105	
BLC			YES	YES	YES	
AUTOIRIS					YES	
PRIVACY ZONE						
POWER SUPPLY	12 Vdc 70 mA	12 Vdc 70 mA	12 Vdc 310 mA	12 Vdc 336 mA	12 Vdc 27 mA	
NOTE			IR 25 m	IR 35 m	IR 25 m	

DOME				
4 305 02	4 305 04	4 305 06	4 305 08	4 305 09
INDOOR	OUTDOOR	INDOOR	OUTDOOR	OUTDOOR
IP 30	IP 66	IP 30	IP 66	IP 66
700	700	700	700	700
1/3"	1/3"	1/3"	1/3"	1/3"
2.8-12 varifocal				
0.01	0 IR ON	0.03	IR ON	IR ON
		YES	YES	
		YES	YES	YES
> 52	> 52	> 54	> 54	> 52
128 x 88	130 x 112	130 x 112	130 x 112	120 x 105
YES	YES	YES	YES	YES
	YES	YES	YES	
8	8	20	20	8
12 Vdc 150 mA	12 Vdc 300 mA	12 Vdc 210 mA	12 Vdc 320 mA	12 Vdc 285 mA
	IR 25 m		IR 25 m	IR 35 m

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### Choosing the right devices

range of motorised cameras

	MOTORISED CAMERAS							
	Legtand 4 305 21	4 305 22	4 305 23	4 305 24	4 305 25			
USE	INDOOR	INDOOR	OUTDOOR	OUTDOOR	OUTDOOR			
IP DEGREE	IP 40	IP 40	IP 66	IP 66	IP 66			
TV LINES	500	550	500	550	550			
CCD DIMENSIONS	1/4"	1/4"	1/4"	1/4"	1/4"			
LENS (MM)	3.6-44.3	3.5-94.5	3.6-44.3	3.5-94.5	3.5-129.5			
SENSITIVITY (LUX)	0.02	0.02	0.02	0.02	0.06			
WDR					YES			
ICR	YES	YES	YES	YES	YES			
S/N RATIO (DB)	> 52	> 52	> 52	> 52	> 52			
DIMENSIONS L X L X H (MM)	132.4 x 187,5	160 x 212	274,5 x 224.3	296 x 276,6	296 x 276.6 m			
BLC	YES	YES	YES	YES	YES			
AUTOIRIS	YES	YES	YES	YES	YES			
PRIVACY ZONE	4	8	8	8	8			
POWER SUPPLY	12 Vdc 800 mA	12 Vdc 1000 mA	12 Vdc 2500 mA	12 Vdc 2000 mA	12 Vdc 2000 mA			
NOTE	for describing the features of the							

# Choosing the right devices range of modular cameras

			MODULAR	CAMERAS		
	4 305 30	4 305 32	4 305 34	4 305 31	4 305 33	4 305 75
USE	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR	INDOOR
IP DEGREE	IP 30	IP 30	IP 30	IP 30	IP 30	IP 30
TV LINES	540	540	550	700	700	700
CCD DIMENSIONS	1/3"	1/3"	1/4"	1/3"	1/3"	1/3"
LENS (MM)	C/CS	C/CS	Built-in zoom lens 3.4-122.4mm (x36)	C/CS	C/CS	C/CS
SENSITIVITY (LUX)	0.1	0.1	0.008	0.05	0.03	0.03
WDR						YES
ICR			YES	YES	YES	YES
S/N RATIO (DB)	> 48	> 48	> 50	> 50	> 50	> 54
DIMENSIONS L X L X H (MM)	125 x 50 x 43	125 x 50 x 43	119 x 66 x 83	52 x 66 x 130.6	52 x 66 x 130.6	133 x 71 x 64
BLC			YES	YES	YES	YES
AUTOIRIS	YES	YES	YES	YES	YES	YES
PRIVACY ZONE			16	8	8	20
POWER SUPPLY	12 Vdc 100 mA	110 - 230 Vac	12 Vdc 380 mA	12 Vdc	110 - 230 Vac	12 Vdc 300 mA
NOTE						

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### Choosing the right devices

range of special cameras

	SPECIAL CAMERAS								
	4 305 35	4 305 39	4 305 36	4 305 37	4 305 38				
USE	INDOOR	INDOOR	INDOOR	INDOOR	OUTDOOR				
IP DEGREE	IP 30	IP 30	IP 30	IP 30	IP 66				
TV LINES	380	420	700						
CCD DIMENSIONS	1/3"	1/3"	1/3"						
LENS (MM)	3.6	3.7	3.7						
SENSITIVITY (LUX)	0.2	0.05	0.01						
S/N RATIO (DB)	> 48	> 48	> 50						
DIMENSIONS L X L X H (MM)	36 x 36 x 23	51 x 45	50 x 60						
POWER SUPPLY	12 Vdc 120 mA	12 Vdc 120 mA	12 Vdc 120 mA						
NOTE				Fake camera	Fake camera				

#### The abbreviations used for describing the features of the cameras are detailed below

#### N&D

(NIGHT & DAY): camera capable of also recording images during night time, and therefore, under very low light conditions. Color images are recorded during the day, and black and white images during the night. Illuminating the scene being recorded always improves night performance. For this purpose, infrared LEDs fitted on infrared light sensitive cameras are very useful.

#### ICR

(IR Cut Removable): removable infrared light filter. Device for improving the performance of infrared light sensitive cameras. It provides sharper images with brighter colors during the day, and sharper black and white images during the night or under dim light conditions.

Operation: during the day, an IR light filter is placed in front of the camera sensor. Under low light conditions (low visible light spectrum), the filter is mechanically moved, making the camera sensitive to infrared light.

#### IR (INFRA RED)

Infrared portion of the light spectrum. Not visible to the human eye, but visible to the electronic camera sensor.

LED emitting light that is within the infrared light spectrum.

#### **AUTO-IRIS**

This function automatically adjusts the brightness depending on ambient conditions, and is useful for outdoor applications where light variations are significant.

#### **TV LINES**

Horizontal resolution, maximum number of vertical lines within a frame that can be detected by the camera. This is an important parameter for defining the level of details of the image produced by the camera in optimum conditions. Good quality images are obtained starting from 380 TV lines. The maximum that can be used with a PAL signal is 550-600.0SD (On-Screen Display): this is the on-board user interface in some cameras, used to adjust certain advanced features. This user interface is temporarily displayed as an inset in the video image.

#### AGC

(Automatic Gain Control): this function automatically adjusts the power of a (too weak or too strong) video signal to its optimum level, thus improving the image quality. AWB (Auto White Balance): this function adjusts the white balance (useful where indoor lighting is provided by compact fluorescent lamps).

#### BLC

(Back Light Compensation): this function compensates for backlighting, thus improving the view of objects and persons in the field close to the camera. Objects in the foreground might otherwise not be visible, since they would be in an area of shadow.

#### HLC

(High Light Compensation): this function corrects glare in the image by attenuating points that are too bright, so that the rest of the image is visible (glare from car headlights).

#### WDR

The wide dynamic range (WDR) function of a camera is intended to provide clear images even under back light circumstances where intensity of illumination can vary excessively, namely when there are both very bright and very dark areas simultaneously in the field of view of the camera. WDR enables the capture and display of both bright and dark areas in the same frame, in a way that there are details in both areas, i.e. bright areas are not saturated, and dark areas are not too dark.

# **C**legrand

#### **CCTV** analog: compact cameras



#### Technical characteristics **p. 72**

Pack	Cat.Nos	Fix lens	Pack	Cat.Nos	Varifocal lens 4-9mm (continued)
1 1	4 305 14	Indoor color tube camera, 3.6 mm lens Sony 1/4" sensor, resolution 330 TV lines Min. illumination of 0.5 lux IP 30 / IK 04 White body camera with fixing bracket supplied Power supply: 12 Vdc max. 120 mA , not supplied Outdoor Day & Night camera, 6 mm lens Sony 1/3" sensor, resolution 420 TV lines LED illumination distance 25 m Min. illumination 0 lux with IR LED ON IP 66 / IK 08 (except glass IK 05) Grey body camera with fixing bracket supplied Power supply: 12 Vdc max. 420 mA with IR LED ON, not supplied Outdoor Night & Day camera, 3.6 mm lens SHARP 1/3" sensor, resolution 420 TV lines LED illumination distance 20 m Min. illumination 0 lux sensitivity with IR LED ON	1		Outdoor Day & Night camera with ICR, 2.8-12 mm varifocal lens Sony 1/3" sensor, resolution 700 TV lines LED illumination distance 35 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 06) Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 430 mA with IR LED ON, not supplied Outdoor WDR Day & Night camera with ICR, 2.8-12 mm varifocal lens Sony 1/3" sensor, resolution 700 TV lines LED illumination distance 35 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 06) Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 480 mA with IR LED ON, not supplied
		IP 66 / IK 06 (except glass IK 05) Grey/black body camera with fixing bracket supplied Power supply: 12 Vdc max. 315 mA with IR LED ON, not supplied	1	4 305 41	Varifocal lens 9-22mm Outdoor Day & Night camera, 9-22 mm varifocal lens
1	4 305 12	Outdoor Night & Day camera, 3.6 mm lens CMOS 1/3" sensor, resolution 600 TV lines LED illumination distance 20 m Min. illumination 0 lux sensitivity with IR LED ON IP 66 / IK 06 (except glass IK 05) Grey/black body camera with fixing bracket supplied Power supply: 12 Vdc max. 315 mA with IR LED ON, not supplied	1	4 305 43	Sony 1/3" sénsor, resolution 600 TV lines LED illumination distance 50 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 06) Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 300 mA with IR LED ON, not supplied Outdoor Day & Night camera with ICR, 9-22 mm
1	4 305 40	Outdoor Day & Night camera, 3.6 mm lens Sony 1/3" sensor, resolution 700 TV lines LED illumination distance of 20 m Min. illumination 0 lux sensitivity with IR LED ON IP 66 / IK 06 (except glass IK 05) Grey body camera with fixing bracket supplied Power supply: 12 Vdc max. 200 mA with IR LED ON, not supplied			varifocal lens Sony 1/3" sensor, resolution 700 TV lines LED illumination distance 50 m Min. illumination 0 lux sensitivity with IR LED ON IP 66 / IK 07 (except glass IK 06) Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 470 mA with IR LED ON, not supplied
		Varifocal lens 4-9mm			Varifocal lens 10-65mm
1		Outdoor color tube camera, 4-9 mm varifocal lens Sony 1/3" sensor, resolution 330 TV lines Min. illumination of 0.5 lux IP 66 / IK 06 Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 160 mA, not supplied Outdoor Day & Night camera, 2.8-12 mm varifocal	1	4 305 17	Outdoor Day & Night camera, 10-65 mm varifocal lens Sony 1/3" sensor, resolution 540 TV lines LED illumination distance 100 m Min. illumination 0 lux with IR LED ON IP 66 / IK 08 (except glass IK 05) Grey body camera with fixing bracket supplied Power supply: 230 Vac max. 78 mA with IR LED ON
	- 000 10	lens Sony 1/3" sensor, resolution 600 TV lines LED illumination distance of 35 m Min. illumination of 0.5 lux IP 66 / IK 06			

Light black body camera with fixing bracket supplied Power supply: 12 Vdc max. 160 mA , not supplied

### CCTV analog: dome cameras



4 305 09

#### Technical characteristics p. 72

Pack	Cat.Nos	Fix Lens - Indoor cameras
1	4 305 00 4 305 01	Indoor dome camera, 2.8 mm lens Sony 1/3" sensor, resolution 420 TV lines Min. illumination of 0.1 lux IP 30 / IK 06 White body camera Power supply: 12 Vdc max. 70 mA, not supplied Indoor Day & Night dome camera, 3.6 mm lens Sharp 1/3" sensor, resolution 540 TV lines Min. illumination of 0.05 lux IP 30 / IK 07 White body camera Power supply: 12 Vdc max. 70 mA, not supplied
		Varifocal lens - Indoor cameras
1	4 305 02	Indoor dome camera, 2.8-12 mm varifocal lens Sony 1/3" CCD sensor, resolution 700 TV lines Min. illumination of 0.01 lux IP 30 / IK 07
1	4 305 06	White body camera Power supply: 12 Vdc max. 150 mA, not supplied Indoor WDR Day & Night dome camera with ICR, 2.8-10 mm varifocal lens Sony 1/3" sensor, resolution 700 TV lines Min. illumination 0.03 lux IP 30 / IK 08 White body camera Power supply: 12 Vdc max. 210 mA, not supplied
1	4 305 05	Fix Lens - Outdoor camera Outdoor Day & Night dome camera, 3.6 mm lens Sony 1/3" sensor, resolution 600 TV lines LED illumination distance 35 m Min. illumination 0 lux with IR LED ON IP 30 / IK 07 (except glass IK 05) White body camera Power supply: 12 Vdc max. 336 mA with IR LED ON, not supplied

Pack	Cat.Nos	Varifocal lens - Outdoor cameras
1	4 305 07	Outdoor dome camera, 2.8-12 mm varifocal lens Sony 1/3" CCD sensor, resolution 600 TV lines LED illumination distance 25 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 05) White body camera Power supply: 12 Vdc max. 310 mA with IR LED ON,
1	4 305 20	2.8-12 mm varifocal lens CMOS 1/3" sensor, resolution 600 TV lines, LED illumination distance 25 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (glass IK 05) White body camera Power supply: 12 Vdc max. 275 mA with IR LED ON,
1	4 305 04	not supplied Outdoor dome camera, 2.8-12 mm varifocal lens Sony 1/3" sensor, resolution 700 TV lines LED illumination distance 25 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 05) White body camera Power supply: 12 Vdc max. 300 mA with IR LED ON, not supplied
1	4 305 08	Outdoor WDR Vandal Proof / Day & Night dome camera with ICR, 2.8-12 mm varifocal lens Sony HAD 1/3" sensor, resolution 700 TV lines, LED illumination distance 25 m Min. illumination 0 lux with IR LED ON IP 66 / IK 07 (except glass IK 05) White body camera Power supply: 12 Vdc max. 320 mA with IR LED ON,
1	4 305 09	not supplied Outdoor Day & Night dome camera with ICR, 2.8-12 mm varifocal lens Sony 1/3" sensor, resolution 700 TV lines, LED illumination distance 35 m Min. illumination 0 lux sensitivity with IR LED ON IP 66 / IK 07 (except glass IK 05) White body camera Power supply: 12 Vdc max. 285 mA with IR LED ON, not supplied

.

### **CCTV** analog: motorised cameras and accessories



Technical characteristics p. 73

Pack Cat.Nos Motorised cameras for indoor

1	4 305 21	Indoor Day & Night camera, 12 x (3.6-44.3 mm) optical zoom SONY 1/4" CCD sensor ICR filter, 0.7 (day) & 0.02 (night) lux sensitivity Auto-IRIS, auto-FOCUS, BLC, AGC Resolution 500 TV lines 4 privacy masking zones, Pelco D / Pelco P protocols, 8 programmable presets IP 40 / IK 04 Grey body camera, ceiling mounting Power supply: 12 Vdc max. 800 mA, not supplied Indoor Night & Day camera, 27 x (3.5-94.5 mm) optical zoom SONY 1/4" sensor ICR filter, 0.4 (day) & 0.02 (night) lux sensitivity Auto-IRIS, auto-FOCUS, BLC, AGC Resolution of 550 TV lines 8 privacy masking zones, Pelco D / Pelco P protocols, 8 programmable presets IP 40 / IK 06 Grey body camera, ceiling mounting or wall mounting with accessories (not supplied) Power supply: 12 Vdc max. 1000 mA, not supplied
		Motorised cameras for outdoor
1	4 305 23	Outdoor Day & Night camera, 12 x (3.6-44.3 mm) optical zoom SAMSUNG 1/4" sensor ICR filter, 0.7 (day) & 0.02 (night) lux sensitivity Auto-IRIS, auto-FOCUS, BLC, AGC Resolution 500 TV lines 8 privacy masking zones, Pelco D / Pelco P
1	4 305 24	protocols, 8 programmable presets IP 66 / IK 06 White body camera,wall mounting accessory supplied Power supply: 12 Vdc max. 2500 mA, not supplied Outdoor Night & Day camera, 27 x (3.5-94.5mm)
	4 303 24	optical zoom SAMSUNG 1/4" CCD sensor ICR filter, 0.4 (day) & 0.02 (night) lux sensitivity Auto-IRIS, auto-FOCUS, BLC, AGC Resolution 550 TV lines 8 privacy masking zones, Pelco D / Pelco P protocols, 8 programmable presets IP 66 / IK 06
1	4 305 25	White body camera,wall mounting accessory supplied Power supply: 12 Vdc max. 2000 mA, not supplied Outdoor WDR Night & Day camera, 37 x (3.5-129.5 mm) optical zoom SAMSUNG 1/4" CCD sensor ICR filter, 0.7 (day) & 0.06 (night) lux sensitivity Auto-IRIS, auto-FOCUS, BLC, AGC
		Resolution 550 TV lines 8 privacy masking zones, Pelco D / Pelco P protocols, 8 programmable presets IP 66 / IK 06 White body camera,wall mounting accessory supplied Power supply: 12 Vdc max. 2000 mA, not supplied

Pack	Cat.Nos	Accessories for motorised cameras
1	4 305 94	Wall bracket for indoor motorised camera Cat.No 4 305 22
1	4 305 95	Ceiling bracket for outdoor motorised cameras Cat.Nos 4 305 23/24/25
1	4 305 98	Angular bracket for motorised cameras Cat.Nos 4 305 23/24/25/22
1	4 305 99	Pole strap for outdoor motorised cameras Cat.Nos 4 305 23/24/25
1	4 305 97	Ceiling accessory for indoor motorised camera Cat.No 4 305 22
1	4 305 96	False ceiling bracket for indoor motorised camera Cat.No 4 305 22
1	4 306 03	Keypad with 3-axis joystick for controlling the new motorised cameras LCD display, multi-protocol remote control (RS485) up to 1000 m, selectable data transmission speed Power supply: 12 Vdc - 140 mA (power supply supplied)

#### CCTV analog: modular cameras

#### CCTV analog: special cameras



Pack

1





4 305 38



4 305 36

Technical characteristics p. 74

Pack	Cat.Nos	Special cameras
1	4 305 35	Indoor Night & Day mini camera, 3.6 mm lens SONY 1/3" sensor, resolution 380 TV lines Min. illumination of 0.2 lux IP 30 / IK 04 Wall, ceiling, cupboard mounting supplied Power supply: 12 Vdc 120 mA, not supplied
1	4 305 39	Indoor Day & Night camera with spot ligth look, 3.7 mm conical lens SONY 1/3" sensor, resolution 420 TV lines Min. illumination of 0.05 lux IP 30 / IK 05 False ceiling mounting Power supply: 12 Vdc 120 mA, not supplied
1	4 305 36	
		Dummies cameras
1	4 305 37	Dummy dome camera, with housing of real camera and with a real lens Shape is identical to Cat.No 4 305 01
1	4 305 38	Dummy compact camera, with housing of real camera and with a real lens Shape is identical to Cat.No 4 305 13

4 305 30 Indoor Day & Night camera for difficult light conditions SHARP 1/3" sensor, resolution 540 TV lines Min. illumination of 0.1 lux IP 30 / IK 04 Grey color, Wall & ceiling mounting not supplied Power supply: 12 Vdc max. 100 mA, not supplied To be equipped with lenses & housings Indoor Day & Night camera for difficult light conditions SHARP 1/3" sensor, resolution 540 TV lines Min. illumination of 0.1 lux IP 30 / IK 04 Wall & ceiling mounting Power supply: 110-230 Vac, not supplied To be equipped with lenses & housings 1

Technical characteristics p. 74

Cat.Nos Standard cameras

		To be equipped with lenses & housings
		High resolution cameras
1	4 305 34	Indoor Day & Night compact camera, 36 x (3.4-122.4 mm) optical zoom Sony 1/4" sensor, resolution 550 TV lines ICR filter, 0.05 (day) & 0.008 (night) lux sensitivity IP 30 / IK 04
1	4 305 31	Grey body camera, ceiling or wall mounting (not supplied) Power supply: 12 Vdc max. 380 mA, not supplied Indoor Day & Night camera with high sensitivity for difficult light conditions Night vision for infrared light sensitivity SONY 1/3" sensor, resolution 700 TV lines ICR filter, 0.8 (day) & 0.05 (night) lux sensitivity
1	4 305 33	IP 30 / IK 04 Wall & ceiling mounting not supplied Power supply: 12 Vdc 90 mA, not supplied To be equipped with lenses & housings Indoor Day & Night camera with high sensitivity for difficult light conditions Sony 1/3" sensor, resolution 700 TV lines ICR filter, 0.8 (day) & 0.05 (night) lux sensitivity IP 30 / IK 04
1	4 305 75	Wall & ceiling mounting Power supply: 110-230 Vac, not supplied To be equipped with lenses & housings Indoor WDR Day & Night compact camera with ICR Sony 1/3" sensor, resolution 700 TV lines IP 30 / IK 04 Grey body camera, ceiling or wall mounting Power supply: 12 Vdc 300 mA, not supplied To be equipped with lenses

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### CCTV analog: accessories



#### Technical characteristics p. 74

Pack	Cat.Nos	IR illuminators
1	4 305 88	IR LED illuminator distance of 50 m Night vision for infrared light sensitivity IP 66 / IK 10 White casing with wall mounting (supplied) Power supply: 230 Vac Can be combined with outdoor camera housing Cat.No 4 305 89
1	4 305 87	IR LED illuminator distance of 30 m Night vision for infrared light sensitivity IP 55 / IK 06 White casing with wall mounting (supplied) Power supply: 12 Vdc
		Camera brackets, swivels and housings
1	4 305 89	Metal Housing for modular cameras Cat.Nos 4 305 30/31/32/33 Thermostatically-controlled case for outdoors installation in white metal with glass window IP 68, IK 10 12 V power supply integrated - 2.5 A integrated 20W heater and ventilation Top opening, wall fixing included
1	4 305 91	
1 1		Wall bracket for indoor camera - 11 cm Wall bracket for indoor camera - 18 cm
		Power supplies
1	4 306 01	Stabilised power supply with plastic housing Input: 230 Vac, output: 12 Vdc - 2.5 A IP 30, IK 05
1	4 306 02	Stabilised power supply with DIN plastic housing (4 modules) Input: 230 Vac - 50 Hz, output: 12 Vdc - 4.5 A
1	4 306 00	Plug-in power supply: 12 Vdc - 0.5 A

Pack	Cat.Nos	Lenses
1 1 1	4 305 81	2.8-11.5 mm varifocal auto-iris lens 3.5-8 mm varifocal auto-iris lens 5-50 mm varifocal auto-iris lens
		Accessory
1	4 305 86	CCTV tester

### Choosing the right devices DVR range

			DVR RANGE			
	STANDARD DVR			HIGH RESOLUTION DVR		
CHARACTERISTIC						
			Contraction of the second			1
VIDEO INPUTS	<b>4 307 53</b> 4	<b>4 307 54</b> 8	<b>4 307 55</b> 16	<b>4 307 57</b> 4	<b>4 307 58</b> 8	<b>4 307 59</b> 16
	H.264	H.264	H.264	H.264	H.264	H.264
HARD DISK SIZE	500 Gb	500 Gb	1 Tb	1 Tb	2 Tb	4 Tb
HDD PORTS	1	1	2	8 (7 if DVDRW connected)	8 (7 if DVDRW connected)	8 (7 if DVDRW connected)
REDUNDANCY	NO	NO	NO	YES	YES	YES
NETWORK (LAN)	YES	YES	YES	YES	YES	YES
AUDIO INPUTS	4 (RCA)	4 (RCA)	4 (BNC)	4 (BNC)	4 (BNC)	4 (BNC)
AUDIO OUTPUTS	1 (RCA)	2 (RCA)	2 (BNC)	1 (BNC)	1 (BNC)	1 (BNC)
VIDEO LOOP THROUGH	NO	NO	NO	4 (BNC)	8 (BNC)	16 (BNC)
MAIN OUTPUTS	1 BNC 1 VGA 1 HDMI	1 BNC 1 VGA 1 HDMI	2 BNC 1 VGA 1 HDMI	1 BNC 1 VGA 1 HDMI	1 BNC 1 VGA 1 HDMI	1 BNC 1 VGA 1 HDMI
ALARM INPUTS/ OUTPUTS	4 INPUT / 1 OUTPUT	8 INPUT / 1 OUTPUT	16 INPUT / 2 OUTPUT	4 INPUT / 1 OUTPUT	8 INPUT / 2 OUTPUT	16 INPUT / 2 OUTPUT
RECORDING QUALITY (FPS)	960 H 100 fps (976 x 582) D1 100 fps (704x576) HD1 100 fps 704 x 288) CIF 100 fps (352 x 288)	960 H 50 fps (976 x 582) D1 200 fps (704 x 480) HD1 200 fps (704 x240) CIF 200 fps (352 x 240)	960 H 400 fps (976 x 582) D1 400 fps (704 x 576) HD1 400 fps (704 x 288) CIF 400 fps (352 x 288)	960 H 100 fps (976 x 582) D1 100 fps (704 x 576) HD1 100 fps (352 x 576) CIF 100 fps (352 x 288)	960 H 200 fps (976 x 582) D1 200 fps (704 x 576) HD1 200 fps (352 x 576) CIF 200 fps (352 x 288)	960 H 400 fps (976 x 582) D1 400 fps (704 x 576) HD1 400 fps (352 x 576) CIF 400 fps (352 x 288)
BURNER	NO	NO	NO	DVD-RW	DVD-RW	DVD-RW
CONTROL SOFTWARE	NO	NO	NO	YES	YES	YES
WEB INTERFACE	YES	YES	YES	YES	YES	YES
JOG SHUTTLE	NO	NO	NO	YES	YES	YES
WATERMARKING	YES	YES	YES	YES	YES	YES
SMART PHONE SUPPORT	iPhone, Android	iPhone, Android	iPhone, Android	iPhone, Android	iPhone, Android	iPhone, Android
RS485 FOR PTZ	YES	YES	YES	YES	YES	YES
MOUSE	YES	YES	YES	YES	YES	YES
REMOTE CONTROL	YES	YES	YES	YES	YES	YES
USB PORT	YES	YES	YES	YES	YES	YES
POWER SUPPLY	12 Vdc	12 Vdc	12 Vdc	230 Vac	230 Vac	230 Vac
DIMENSIONS (MM) WEIGHT (KG)	300 x 215 x 55	300 x 215 x 55	375 x 50 x 330	440 x 460 x 89	440 x 460 x 89	440 x 460 x 89
19" RACK COMPATIBILITY	NO	NO	NO	YES	YES	YES

VIDEO LOOP THROUGH: the DVR has a video output for each camera. This is useful during testing and installation or for any other use of the signal of the individual camera

## **C**legrand

### CCTV analog: standard and high resolution DVR



#### Technical characteristics p. 75

Pack Cat.Nos	Standard DVR	Pack	Cat.Nos	Hig
1 4 307 53	4-input Digital Video Recorder (DVR) with LAN H.264 compression format, resolution of 720 x 576 (PAL), motion detector and 2 USB ports for connection to the back-up device Integrated 500 Gb SATA hard disk Video resolution of 100 fps @ 960 H, 100 fps @ D1 (recording) 4 In - 1 out alarm IR remote control supplied Data usage is at the user's expense Power supply: 12 Vdc (power supply supplied)	1	4 307 57	4-in cen H.2 Vide (rec Rea DVI dev RS4 cam 4 IN
1 4 307 54	<ul> <li>8-input Digital Video Recorder (DVR) with LAN</li> <li>H.264 compression format, resolution of 720 x 576 (PAL), motion detector and 2 USB ports for connection to the back-up device Integrated 500 Gb SATA hard disk</li> <li>Video resolution of 50 fps @ 960 H, 200 fps @ D1 (recording)</li> <li>8 In - 1 out alarm</li> <li>IR remote control supplied Data usage is at the user's expense Power supply: 12 Vdc (power supply supplied)</li> </ul>	1	4 307 58	Allo dev (iPh Data Prot Pow 8-in cen H.2 Vide (rec
1 4 307 55	16-input Digital Video Recorder (DVR) with LAN H.264 compression format, resolution of 720 x 576 (PAL), motion detector and USB port for connection to the back-up device Integrated 1 To SATA hard disk Video resolution of 400 fps @ 960 H, 400 fps @ D1 (recording) 16 In - 2 out alarm IR remote control supplied Data usage is at the user's expense Power supply: 12 Vdc (power supply supplied)		4 007 50	Rea DVE dev RS4 mot 8 IN Allo dev (iPh Data Prof Pow

gh resolution DVR nput Digital Video Recorder (DVR) with LAN and ntralising software supplied 264 compression format, 1 Tb hard disk supplied deo resolution of 100 fps @ 960 H, 100 fps @ D1 ecording) eal-time display, 4 audio channels (recording) /D-RW and 4 USB ports for back-up on external vices 485 communication interfaces for motorised mera control NPUTS / 5 OUTPUTS for alarm lows for the remote viewing of images on PDA evices with compatible operating systems hone, Android) ata usage is at the user's expense otocols Supported: DHCP, PPPOE, STATIC wer supply: 230 Vac - 50 Hz input Digital Video Recorder (DVR) with LAN and ntralising software supplied 264 compression format, 2 Tb hard disk supplied deo resolution of 200 fps @ 960 H, 200 fps @ D1 cording) eal-time display, 8 audio channels (recording) /D-RW and 4 USB ports for back-up on external vices 485 communication interfaces for otorised camera control NPUTS / 5 OUTPUTS for alarm ows for the remote viewing of images on PDA vices with compatible operating systems hone, Android) ata usage is at the user's expense otocols Supported: DHCP, PPPOE, STATIC wer supply: 230 Vac - 50 Hz 16-input Digital Video Recorder (DVR) with LAN and centralising software supplied H.264 compression format, 4 Tb ( $2 \times 2$ ) hard disk 4 307 59 supplied Video resolution of 400 fps @ 960 H, 400 fps @ D1 (recording) Real-time display, 16 audio channels (recording) DVD-RW and USB ports for back-up on external devices RS485 communication interfaces for motorised camera control 16 INPUTS / 5 OUTPUTS for alarm Allows for the remote viewing of images on PDA devices with compatible operating systems (Phone, Android) Data usage is at the user's expense Protocols Supported: DHCP, PPPOE, STATIC Power supply: 230 Vac - 50 Hz

### **VMS** monitors

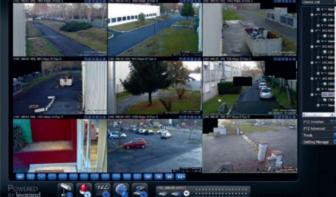
Mosaic view



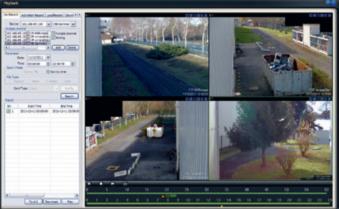
4 306 21

			Concession in the local division in the loca
Pack	Cat.Nos	VMS management software	
1	4 306 21	<ul> <li>views from cameras to be centralised:</li> <li>IP cameras connected directly to the network or recorded using an NVR</li> <li>Analog cameras connected to a DVR LAN recorder</li> </ul>	Br legrand
		or a video encoder • recordings stored on DVR LAN and NVR recorders to be accessed	Playback v
		• one or more cameras to be recorded locally via the management PC	Solari anariani ashari buli bili na arar a a matari a Salari
		<ul> <li>local or remote recordings to be searched for and exported</li> <li>cameras to be managed in accordance with the</li> </ul>	Annual and a state of a
		plan • mobile cameras to be controlled • remotely configuring IP cameras, NVRs, DVRs and	Anima and Anima anim
		<ul> <li>encoders</li> <li>automatically searching for IP cameras, NVRs,</li> </ul>	P Service Service 21 Service Service
		DVRs and encoders connected to the network - Capacity 1000 cameras, 36 maximum	
		simultaneously - Graphic interface	
		<ul> <li>Up to 8 displays</li> <li>Use of this software requires all the products (IP cameras, DVR, NVR) to be connected to the</li> </ul>	
		Ethernet network - Minimum configuration: • Operating system: Windows XP, Windows Vista,	Christen L. M.
		Windows 7 • Processor: Intel Core i5-760	
		<ul> <li>RAM: 4 Gb</li> <li>Sound card: standard</li> </ul>	Installation
		Graphics card: NVIDIA GeForce 9400GT or above	tmp

Network card: 10/100/1000 Ethernet



#### view



n plan view (camera control)



# La legrand

# Selection chart: video baluns

		MAXIMUM UTP	CABLE DISTANCE	BETWEEN THE TRA	NSMITTER T AND TH	IE RECEIVER R
COUPLING		Video 300 metres	Video 600 metres	Video 1200 metres	Video + Pow.(1) 80 metres	Video + Pow.(1) 300 metres
	<b>N</b> o					
Cat.No 4 306 0	)5 Passive T-R					
			$\bigcirc$			
Cat.No 4 306 05 Passive T	Cat.No 4 306 07 Active R					
and the second				•		
Cat.No 4 306 06 Active T	Cat.No 4 306 07 Active R					
	COM BUIL		$\bigcirc$			
Cat.No 4 306 05 Passive T	Cat.No 4 306 10 Active R					
Cat.No 4 306 06	Cat.No 4 306 10			0		
Active T	Active R					
Cat.No 4 306 1	2 Passive T-R					
						$\bigcirc$
Cat.No 4 306 28 Passive T	Cat.No 4 306 08 Active R					
						0
Cat.No 4 306 28 Passive T	Cat.No 4 306 09 Active R					

### CCTV analog: video baluns, power supply CCTV analog: wiring accessories





4 306 00





0 327 50

Technical characteristics p. 75

Pack	Cat.Nos	Video baluns

Pack	Cat.Nos	Video baluns
1	4 306 05	Passive UTP video balun, maximum distance of up to 300 metres between the transmitting balun and the receiving balun, and up to 600 metres between the transmitting balun and the active video receiver (Cat.No 4 306 07)
1	4 306 07	Active video balun/receiver (amplified) Allows receiving real-time and high-performance color or black and white (B/W) CCTV videos through UTP cable
		Maximum distance of up to 600 m between the active video receiver and the transmitting balun Cat.No 4 306 05, and up to 1200 m between the active video receiver and the active video transmitter Cat.No 4 306 06
1	4 306 10	4-input active video balun/receiver (amplified) Allows receiving real-time and high-performance color or black and white (B/W) CCTV videos through UTP cable
		Maximum distance of up to 600 m between the active video receiver and the transmitting balun Cat.No 4 306 05, and up to 1200 m between the active video receiver and the active video transmitter Cat.No 4 306 06
1	4 306 12	
		Allows for the transmission of video in realtime in closed circuit and low voltage UTP cable It comprises a transmitter and a receiver Both are equipped with BNC-M and RJ-45 jacks for the video signal and a female connector to connect
1	4 306 06	the DC power adapter Active video balun amplified with an equaliser Allows transmitting real-time and highperformance color or black and white (B/W) CCTV videos through UTP cable
1	4 306 08	4-channel passive video balun (non-amplified) 36 V output power supply (100 W and 150 W) Each output must be coupled with the camera's video transmitter Cat.No 4 306 28, which is also able
1	4 306 09	to provide the camera with 12 Vdc power supply
1	4 306 28	
		Power supply
1	4 306 01	Stabilised power supply with plastic housing Input: 230 Vac, output: 12 Vdc - 2.5 A Protection rating: IP 30
1	4 306 02	Protection rating against mechanical impact: IK 05 Stabilised power supply with DIN plastic housing (4 modules) Input: 230 Vac - 50 Hz, output: 12 Vdc - 4.5 A
1	4 306 00	Plug-in power supply: 12 Vdc - 0.5 A

Pack	Cat.Nos	Wiring accessories
1	0 327 52	5 F/UTP Cat. 5e cable, 4 twisted pair cables 100 ohms, LSZH sleeve : non-halogen Grey RAL 7035, color code TIA/EIA Compliant with ISO /IEC 11801 LSZH sheathing Length 305 m - supplied in cardboard box
1	0 327 50	5 U/UTP Cat. 5e cable, 4 twisted pair cables 100 ohms, LSZH sleeve : non-halogen Grey RAL 7035, color code TIA/EIA Compliant with ISO /IEC 11801 LSZH sheathing Length 305 m - supplied in cardboard box
1	4 306 13	CCTV video opto-isolator Removes interference such as distortion, video tearing, transverse stripes, grid patterns, and snowflakes The isolation voltage reaches 800V. It is equipped with a super surge protector and can be widely used in CCTV video transmission
10	4 306 14	BNC connector with plastic housing
1		Crimping tool

# La legrand

# Selection chart: monitors

			MONITORS		
CHARACTERISTIC	4 305 74	4 305 70	4 305 71	4 305 72	4 305 73
SCREEN SIZE	7" / 17 cm	17" / 43 cm	19" / 48 cm	22" / 48 cm	32" / 81 cm
SCREEN TYPE	TFT - LCD	TFT - LCD	TFT - LCD	TFT - LCD	TFT - LCD
SCREEN RATIO	16/9	4/3	4/3	16/9	16/9
RESOLUTION MAX	480 x 234	1280 x 1024	1280 x 1024	1920 x 1080	1920 x 1280
VIDEO IN	2 x BNC	2 x BNC 1 x VGA 1 x S-Video	2 x BNC 1 x VGA 1 x S-Video	2 x BNC IN 2 x BNC OUT	2 x BNC IN 2 x BNC OUT
AUDIO IN	1	1	1	1	1

### CCTV analog: monitors and accessories



# CHOOSE YOUR IP CAMERA



The table opposite shows how to go about choosing your camera on the basis of the positioning distance and type of visualization required.

#### **3 TYPES OF CAMERA:**

#### Compact:

camera supplied with lens and mechanism already affixed. Wall mounting

#### Dome:

camera supplied with lens and mechanism already affixed. Wall mounting or suspension arm.

#### Motorised:

camera capable of extremely fast movement. Able to follow the movements of any object/target.

#### 2 TYPES OF LENS:

Fixed:

fixed lens aperture.

#### Varifocal:

enables manual adjustment of the focal length.

For example, if a 6 mm fixed lens is required, a 3.5-8 mm varifocal lens, adjusted to be fixed at 6 mm, could be used.

#### **TYPE OF VISUALISATION**

	1,2 m to 1,5 m
	2 m
CAMERA WITH	3 m
FIXED LENS - Distance	2 m
between the camera and the target to be filmed.	
	10 m
	13 m
	20 m
CAMERA WITH VARIFOCAL LENS -	A CONTRACT OF
Distance between the camera and the target	e de la construcción de la constru
to be filmed.	15 m to 30 m
	30 m to 60 m

NARROW SHOTS (Identification)	NARROW SHOTS (Recognition)	WIDE SHOTS (Classification)	WIDE SHOTS (Detection)
1,5 m	 2,7 m   3,6 m	6 m 8 m	13 m 
<b>Compacts:</b> Cat.No 4 306 40/45 <b>Domes:</b> Cat.Nos 4 303 32/36/37		-	-
<b>Compacts:</b> Cat.No 4 306 38/30	<b>Domes:</b> Cat.No 4 306 32/37	-	-
-	<b>Compacts:</b> Cat.Nos 4 306 38/40/45 <b>Domes:</b> Cat.Nos 4 306 32/36/37	-	-
-	-	<b>Domes:</b> Cat.No 4 306 32/37	-
-	-	<b>Compacts:</b> Cat.No 4 306 40/45 <b>Domes:</b> Cat.Nos 4 306 32/36/37	-
-	-	<b>Compacts:</b> Cat.No 4 306 38	-
-	-	-	<b>Compacts:</b> Cat.No 4 306 40/45 <b>Domes:</b> Cat.Nos 4 306 32/36/37
-	-	-	<b>Compacts:</b> Cat.No 4 306 38
<b>Domes:</b> Cat.No 4 306 35/42/44 <b>Motorised:</b> Cat.No 4 306 52/51	-	-	-
<b>Motorised:</b> Cat.No 4 306 52	<b>Domes:</b> Cat.No 4 306 35/42/44 <b>Motorised:</b> Cat.No 4 306 52	-	-
	<b>Motorised:</b> Cat.No 4 306 52/51	<b>Domes:</b> Cat.No 4 306 35/42/44 <b>Motorised:</b> Cat.No 4 306 52	-
<b>Motorised:</b> Cat.No 4 306 52	<b>Motorised:</b> Cat.No 4 306 52	<b>Motorised:</b> Cat.No 4 306 52/51	<b>Domes:</b> Cat.No 4 306 35/42/44 <b>Motorised:</b> Cat.No 4 306 52/51
		<b>Motorised:</b> Cat.No 4 306 52	Motorised: Cat.No 4 306 52

# Selection chart IP cameras

		DOME C	AMERAS					COMPAC	Т САМЕ
	legrand 6	Legrand A 306 32	Legrand Lagrand 4 306 37	4 306 35	4 306 38	4 306 30	4 306 40	4 306 44	
DAY/NIGHT	YES	YES	YES	YES	YES	YES	YES	YES	
USE	OUTDOOR	INDOOR	OUTDOOR	OUTDOOR	INDOOR	INDOOR	OUTDOOR	OUTDOOR	
RESOLUTION (MP)	1.3 MP (720 P)	1.3 MP (720 P)	2 MP (1080 P)	3 MP (1080 P)	1.3 MP (720 P)	1.3 MP (720 P)	1.3 MP (720 P)	2 MP (1080 P)	
IP DEGREE	IP 65	IP 30	IP 65	IP 65	IP 30	IP 30	IP 65	IP 65	
CCD DIMENSIONS	1/3"	1/3"	1/3"	1/2,8"	1/3"	1/3"	1/3"	1/2"8	
LENS	2.8 mm	2.8 mm	2.8 mm	3.3-12 mm	3.6 mm	3.6 mm	3.6 mm	3.3-12 mm	
SENSITIVITY (LUX)	Color: 0.1 Lux/F1.4, B/W: 0.005 Lux/F1.2, 0 Lux IR LED ON	Color: 0.1 Lux/F1.4, B/W: 0.005 Lux/F1.4	Color: 0.2 Lux/F1.6, B/W: 0.01 Lux/F1.6	Color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2, 0 Lux IR LED ON	Color: 0.1 Lux/F1.8, 0 Lux White LED ON	Color: 0.1 Lux/F1.8, 0 Lux White LED ON	Color: 0.1 Lux/F1.4, B/W: 0.005 Lux/F1.2, 0 Lux IR LED ON	Color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2, 0 Lux IR LED ON	
INFRARED LED (IR)	YES, distance 20 m	NO	NO	YES, distance 25 m	YES, distance 10 m	YES, distance 10 m	YES, distance 15 m	YES, distance 20 m	
WDR	NO	NO	DWDR	DWDR	DWDR	DWDR	NO	DWDR	
ICR	YES	NO	NO	YES	YES	YES	YES	YES	
BLC	YES	YES	YES	YES	YES	YES	NO	YES	
PRIVACY ZONE	4 areas	4 areas	4 areas	4 areas	4 areas	4 areas	4 areas	4 areas	
ONVIF	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	
SD MEMORY	NO	NO	YES	YES	YES	YES	NO	YES	
NOTE	PoE	PoE	PoE	PoE	PoE	WiFi	PoE	PoE	

1: For the abbreviation used for describing the features of the cameras see p. 27

# L<sup>1</sup> legrand

RAS			N		S	MOTORISEI	D CAMERAS
	4 306 45	4 306 42	4 306 60	4 306 61	4 306 62	4 306 52	Legrand 4 306 51
	YES	YES	YES	YES	YES	YES	YES
	OUTDOOR	OUTDOOR	INDOOR	INDOOR	INDOOR	OUTDOOR	OUTDOOR
	2 MP (1080 P)	3 MP (1080 P)	1.3 MP (720 P)	3 MP (1080 P)	5 MP (1080 P)	1.3 MP (720 P)	2 MP (1080 P)
	IP 65	IP 65	IP 30	IP 30	IP 30	IP 65	IP 65
	1/2"8	1/2"8	1/3"	1/2,8"	1/3"	1/3"	1/2,8"
	3.6 mm	3.3-12 mm	C/CS	C/CS	C/CS	4.7-84.6 mm x 18 optical zoom	3-9 mm
	Color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2, 0 Lux IR LED ON	Color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2, 0 Lux IR LED ON	Color: 0.1 Lux/F1.2, B/W: 0.005 Lux/F1.2	Color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2	Color: 0.6 Lux/F1.2, B/W: 0.08 Lux/F1.2,	Color: 0.5 Lux/F1.6, B/W: 0.02 Lux/F1.6	Color: 0.05 Lux/F1.6, B/W: 0.0005 Lux/F1.6
	YES, distance 15 m	YES, distance 20 m	NO	NO	NO	NO	NO
	DWDR	DWDR	DWDR	DWDR	DWDR	WDR	DWDR
	YES	YES	YES	YES	YES	YES	YES
	YES	YES	YES	YES	YES	YES	YES
	4 areas	4 areas	4 areas	4 areas	4 areas	24 areas	24 areas
	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S	ONVIF 2 / Profile S
	NO	YES	YES	YES	YES	YES	YES
	PoE	PoE	PoE C/CS adapter included	PoE C/CS adapter included	PoE C/CS adapter included	18X optical zoom + 16X digital zoom	3x optical zoom

### **CCTV IP: dome cameras**



#### Technical characteristics **p. 76**

Pack	Cat.Nos	Dome cameras	Pack	Cat.Nos	Dome cameras (continued)
1		Indoor dome camera 1.3 megapixels (720p) 2.8mm Day & Night HD 720p camera - Ceiling or wall mounting Sensitivity: color: 0.1 Lux/F1.4, B/W: 0.005 Lux/F1.4 Sensor: 1/3" CMOS Aptina 1.3 Megapixels with progressive scan Lens: 2.8 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream : 15 fps @ 1,3 MP or 25 fps @ 720p Secondary stream : 25 fps @D1 1 RJ 45 connector Ceiling or wall mounting White plastic housing Power supply : PoE (802.3af class 3) or 12 Vcc (not supplied) Power consumption : 1.5 W / 0.125 A IP 30 / IK 04 ONVIF 2 / Profile S compliant <b>Outdoor camera 1.3 megapixels (720p) 2.8 mm</b> Day & Night 720p camera with ICR Infrared lighting using built-in LEDs, range 15 meters Sensitivity: color: 0.1 Lux/F1.4, B/W: 0.005 Lux/F1.2 0 Lux IR LED ON Sensor: 1/3" CMOS Aptina 1.3 MP with progressive scan Lens: 2.8 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 1,3 MP or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Wall mounting White metal /plastic housing Power supply: POE (802.3af class 3) or 12 Vcc (not supplied) Power consumption: 6 W / 0.5 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant	1		Outdoor DWDR dome camera 2 megapixels (1080p) 2.8 mm Day & Night camera Full HD 1080p - Ceiling or wall mounting Sensitivity: color: 0.2 Lux/F1.6, B/W: 0.01 Lux/F1.6 Sensor: 1/2.8" CMOS Sony Exmor 2 megapixels with progressive scan Lens: 2.8 mm Compression: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 1,3 MP or 25 fps @ full HD 1080p Secondary stream: 25 fps @ D1 White metal housing Power supply: PoE (802.3af class 3) or 12 Vcc (not supplied) Power consumption: 1.5 W / 125 mA IP 65 / IK 07 Internal memory: micro SD card (supplied) Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant Outdoor DWDR dome camera 3 megapixels (1080p) 3.3-12mm varifocal lens Day & Night function with ICR Infrared lighting range 20 meters Sensitivity: color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2 0 Lux IR LED ON Sensor: 1/2.8" CMOS Sony Exmor 3 megapixels with progressive scanning Lens: varifocal 3.3-12mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 3MP or 25 fps @ Full HD 1080p Secondary stream: 25 fps @ D1 Power supply: POE (802.3af class 3) or 12 Vcc/24 Vac (not supplied) Internal memory: micro SD card (not supplied) 2 inputs/1 output (potential-free NO-NC contact) 1 BNC connector Ceiling or wall mounting White metal housing IP 65 / IK 07 Power consumption: 10W Operating temperature: - 30 °C to + 70 °C ONVIF 2 / Profile S compliant

## CCTV IP: compact cameras



#### Technical characteristics p. 76

Pack	Cat.Nos	Compact cameras
		Indoor DWDR 1.3 megapixels (720p) camera 3.6 mm Day & Night 720p camera White LED lighting range 10 meters Integrated PIR detector for motion detection Sensitivity: color: 0.1 Lux/F1.8, 0 Lux White LED ON Sensor: 1/3" CMOS Aptina 1.3 MP with progressive scan Lens: 3.6 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 1.3MP or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Internal memory: micro SD card (not supplied) White plastic housing Power supply: PoE (802.3af class 3) or 12 Vcc (not supplied) Power consumption: 4 W / 0.5 A IP 30 / IK 04 ONVIF 2 / Profile S compliant
1 1	4 306 38 4 306 30	Day & Night 720p camera Day & Night 720p camera with WiFi and without PoE
1	4 306 40	Outdoor camera 1.3 megapixels (720p) 3.6 mm Day & Night 720p camera with ICR Infrared lighting using built-in LEDs, range 15 meters Sensitivity: color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2 0 Lux IR LED ON Sensor: 1/3" CMOS Aptina 1.3 MP with progressive scan Lens: 3.6 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 1.3 MP or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Wall mounting White metal housing Power supply: PoE (802.3af class 3) or 12 Vcc (not supplied) Power consumption: 6 W / 0.5 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant
1	4 306 45	Outdoor camera 2 megapixels (1080p) 3.6 mm Day & Night Full HD camera with IR 15 meters Sensitivity: color: 0.1 Lux/F1.2, B/W: 0.01 Lux/F1.2 0 Lux IR LED ON Sensor: 1/3" CMOS Aptina Lens : 3.6 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 25 fps @ Full HD or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Wall mounting White metal housing Power supply: PoE (802.3af class 3) or 12 Vcc Power consumption: 6 W / 0.5 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant

Pack	Cat.Nos	Compact cameras (continued)
1	4 306 44	Outdoor camera 2 megapixels (1080p) 3.3-12 mm Day & Night Full HD camera with IR 20 meters Sensitivity: color: 0.1Lux/F1.2, B/W: 0.01 Lux/F1.2 0 Lux IR LED ON Sensor: 1/3" Sony Exmor CMOS Lens : 3.3-12 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 25 fps @ HD 1080p or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Wall mounting White metal housing Power supply: PoE (802.3af class 3) or 12 Vcc Power consumption: 10 W / 0.9 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant
1	4 306 42	Outdoor camera 3 megapixels (1080p) 3.3-12 mm Day & Night Full HD camera with IR 20 meters Sensitivity: color: 0.1Lux/F1.2, B/W: 0.01 Lux/F1.2 0 Lux IR LED ON Sensor: 1/3" Sony Exmor CMOS Lens : 3.3-12 mm Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 3 MP or 25 fps @ HD 1080p Secondary stream: 25 fps @ D1 Wall mounting White metal housing Power supply: PoE (802.3af class 3) or 12 Vcc Power consumption: 10 W / 0.9 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant

### **CCTV IP: motorised and modular cameras**



#### Technical characteristics **p. 76-77**

Pack	Cat.Nos	Motorised camera	Pack	Cat.Nos	Modular cameras
1	4 306 52	<b>Outdoor WDR speed dome 1.3 megapixels (720p)</b> <b>18X optical zoom</b> Day & Night 720p speed dome Day /Night function with ICR Sensitivity: color: 0.5 Lux/F1.6, B/W: 0.02 Lux/F1.6 Sensor: 1/3" CMOS Aptina 1.3 MP with progressive scan Lens: 18x optical zoom (4.7-84.6mm), x16 digital zoom Compression format: H264 (double encoding of 2 simultaneous feeds) Main stream: 15 fps @ 1.3 MP or 25 fps @ 720p Secondary stream: 25 fps @ D1 Internal memory: micro SD card (not supplied) 1 audio input/1 audio output 1 BNC Wall mounting (bracket supplied) White/grey metal housing Power supply: 24 VAC (supplied) Power consumption: 15 W / 0.65 A (normal), 50 W / 2.1 A (heating active)	1	4 306 60	Indoor DWDR camera 1.3 megapixels (720p) Day & Night 720p camera with ICR Sensitivity: color: 0.1 Lux/F1.2, B/W: 0.005 Lux/F1.2 Sensor: 1/3" CMOS Aptina 1.3 MP with progressive scan Compatible lenses: C/CS-mounts / auto-iris supported Compression format: H264 (double encoding of 2 simultaneous streams) Main stream: 15 fps @ 1.3 MP or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 1 audio input/1 audio output (bidirectional) 1 event input/1 event output (potential-free NO-NC contact) 1 BNC connector Ceiling or wall mounting White metal housing Power supply: PoE (802.3af class 3) ou 12 Vcc (supplied) Power consumption: 5 W / 0.41 A IP 30 / IK 04 ONVIF 2 / Profile S compliant
		IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant	1	4 306 61	Indoor DWDR camera 3 megapixels (1080p) Day & Night 1080p camera with ICR Sensitivity: color: 0.2 Lux/F1.2, B/W: 0.01 Lux/F1.2
1	4 306 51	<b>Outdoor speed dome 2 megapixels (1080p) -</b> <b>3X optical zoom</b> Day & Night Full HD speed dome Sensitivity: color: 0.05 Lux/F1.2, B/W: 0.0005 Lux/F1.6 Sensor: 1/2.8" Sony Exmor CMOS Lens: 3x optical zoom (3-9mm) Compression format: H264 (double encoding of 2 simultaneous feeds) Main stream: 25 fps @ Full HD 1080p or 25 fps @ HD 720p Secondary stream: 25 fps @ D1 Wall mounting (bracket supplied) Power supply: 24 VAC (supplied) Power consumption: 15 W / 1.3 A IP 65 / IK 07 Operating temperature: - 30 °C + 70 °C ONVIF 2 / Profile S compliant			Sensor: 1/2,8" Sony Exmor 3 MP with progressive scan Compatible lenses: C/CS-mounts / autoris supported Compression format: H264 (double encoding of 2 simultaneous feeds) Main stream: 15 fps @ 3 MP or 25 fps @ Full HD 1080p Secondary stream: 25 fps @ D1 Internal memory: micro SD card (not supplied) 1 audio input/1 audio output (bidirectional) 1 event input/1 event output (potential-free NO-NC contact) 1 BNC connector Ceiling or wall mounting White metal housing IP 30 / IK 04 Power consumption: 5 W ONVIF 2 / Profile S compliant
			1	4 306 62	Indoor DWDR camera 5 megapixels (1080p) Day & Night 1080p camera with ICR Sensitivity: color: 0.6 Lux/F1.2, B/W: 0.08 Lux/F1.2 Sensor: 1/3" Sony Exmor 5 MP with progressive scan Compatible lenses: C/CS-mounts / autoris supported Compression format: H264 (double encoding of 2 simultaneous feeds) Main stream: 8 fps @ 5 MP or 25 fps @ Full HD 1080p Secondary stream: 25 fps @ D1 Internal memory: micro SD card (not supplied) 1 audio input/1 audio output (bidirectional) 1 event input/1 event output (potential-free NO-NC contact) 1 BNC connector Ceiling or wall mounting White metal housing IP 30 / IK 04 Power consumption: 6 W / 0.5 A ONVIF 2 / Profile S compliant

### **CCTV IP:** accessories



#### Pack Cat.Nos Accessories

1	4 306 92	PoE outdoor metal housing - Thermostatically controlled housing for outdoor installation - Ivory white colored aluminium - Cable ducting built into the housing (cable glands and wall mounting included) - Opened from the top - Adjustable internal stand for precise adjustment of the camera's position - 20W heating - Hi-PoE power supply (injector supplied) - IP 65 / IK 10 - For pole-mounting, add Cat.No 4 305 91 Operating temperature: - 30 °C to + 60 °C - Advanced function: 4 outputs 12V= and 1 port RJ 45 PoE available inside
1	4 306 93	<ul> <li>PoE outdoor metal housing with IR <ul> <li>Thermostatically controlled and ventilated housing for outdoor installation</li> <li>Ivory white colored aluminium</li> <li>Cable ducting built into the housing (cable glands and wall mounting included)</li> <li>Infrared lighting using built-in LEDs</li> <li>Adjustable LED range: 50 - 70m</li> <li>Light sensor for triggering the infrared lighting</li> <li>20W heating, heat dissipated by a built-in fan</li> <li>Automatic demisting</li> <li>Hi-PoE power supply (injector supplied)</li> <li>IP 65 / IK 10</li> <li>Operating temperature: - 30 °C to + 60 °C</li> <li>Opened from the top</li> <li>For pole-mounting, add Cat.No 4 305 91</li> <li>Advanced functions:</li> <li>Infrared lighting automatically triggered by a light sensor (to control day/night switching by a camera, for example)</li> <li>Advanced function: 4 outputs 12V= and 1 port RJ 45 PoE available inside</li> </ul> </li> </ul>

Pole mounting for outdoor metal housing
 4 306 91 - Pole mounting system (diameter 83 - 177 mm)

Pack	Cat.Nos	Lenses for cameras to be equipped
1	4 305 84	<ul> <li>1/2.7" 3.3 – 12 mm lens</li> <li>Megapixel varifocal lens</li> <li>Compatible with D1 and megapixel cameras</li> <li>Adjustable between 3.3 and 12 mm</li> <li>Lens mount ring: CS-mount</li> <li>DC powered</li> <li>Compatible with infrared lighting</li> </ul>
1	4 305 85	<ul> <li>1/2.8" 5 – 50 mm lens</li> <li>Megapixel varifocal lens</li> <li>Compatible with D1 and megapixel cameras</li> <li>Adjustable between 10 and 40 mm</li> <li>Lens mount ring: CS-mount</li> <li>DC powered</li> <li>Compatible with infrared lighting</li> </ul>
		4GB micro SD card
1	4 306 87	<ul> <li>4GB memory card for IP camera</li> <li>Supplied with SD card adaptor</li> </ul>
		Video surveillance signage
5	4 306 20	<ul> <li>CCTV sign for installation at the entrance to the building, to identify the presence of a video surveillance system</li> <li>Complies with law no. 95-73 of 21/01/1995 and no. 2006-64 of 23rd January 2006 decrees no. 96-926 of 17/10/1996 and no. 2009-86 of 22nd January 2009</li> <li>Mounting: using screws or double sided tape (supplied)</li> </ul>

### **CCTV IP: encoders and decoder**



Pack	Cat.Nos	Video encoders for analog cameras
1	4 306 24	Single-channel video encoder - Allows an analog camera to be connected to an Ethernet network - Main stream: 25 fps @ D1 - Secondary stream 25 fps @ CIF - Compression format: H264 (double encoding of 2 simultaneous feeds) - Internal memory: micro SD card (not supplied) - 1 audio input/1 audio output (bidirectional) - 4 event inputs/2 event outputs (potential-free NO-NC contact) - 1 BNC video input (for encoding) / 1 BNC analog output (for local broadcast) - For ceiling or wall fixing or installing in a cabinet (not supplied) - Grey metal housing - IP 30 / IK 04 - Power supply 12 Vdc (included) - Power consumption: 5 W
1	4 306 25	<ul> <li>4-channel video encoder</li> <li>Allows up to 4 analog cameras to be connected to an Ethernet network</li> <li>Main stream: 25 fps @ D1</li> <li>Secondary stream: 25 fps @ CIF</li> <li>Compression format: H264 (double encoding of 2 simultaneous feeds)</li> <li>Internal memory: micro SD card (not supplied)</li> <li>1 audio inputs/1 audio output (bidirectional)</li> <li>4 event inputs/2 event outputs (potential-free NO-NC contact)</li> <li>4 BNC video input (for encoding) / 1 BNC analog output (for local broadcast)</li> <li>For ceiling or wall fixing or installing in a cabinet (not supplied)</li> <li>Grey metal housing</li> <li>IP 30 / IK 04</li> </ul>

- IP 30 / IK 04 Power supply 12 Vdc (included) Power consumption: 5 W

Pack Cat.Nos Video decoder 4 306 26
4 306 26
For connection to an Ethernet network Provides decoding of images on 4 screens from 1 to 28 IP cameras, encoders, DVRs or NVRs
Video compression format: H264
25 frames per second for 28 cameras in D1 resolution or for 14 cameras in 720 p resolution or for 7 cameras in 1080 p resolution
Capacity for displaying images in full-screen or quad (with screen-by-screen configuration)
1 audio input/4 audio outputs (bidirectional)
16 events inputs / 8 events outputs (potential-free NO-NC contact)
1 RJ 45 connector
4 BNC, 4 VGA, 4 HDMI video outputs (for local broadcast)
For desktop or 19" bay installation
black metal housing
IP 30 / IK 04
Power supply: 12 Vcc (supply)
Power consumption: 20 W IP decoder 28 channels D1 1

# L<sup>1</sup>legrand

### Selection chart: Network Video Recorders

	NVR RANGE					
	PoE	NVR	NVR			
CHARACTERISTIC	4 306 73	4 306 90	4 306 83	4 306 84		
VIDEO INPUTS	4	8	16	32		
COMPRESSION TYPE	H.264	H.264	H.264	H.264		
HARD DISK SIZE	1 Tb	2 Tb	2 Tb	4 Tb		
HDD PORTS	2 (1 already connected)	2 (1 already connected)	2 (1 already connected)	8 (7 if DVDRW connected)		
REDUNDANCY	YES	YES	YES	YES		
NETWORK (LAN)	YES	YES	YES	YES		
AUDIO INPUTS	1 (BNC)	1 (BNC)	1 (BNC)	1 (BNC)		
AUDIO OUTPUTS	1(BNC)	1 (BNC)	1 (BNC)	1 (BNC)		
MAIN OUTPUTS	1 BNC 1 VGA 1 HDMI					
ALARM INPUTS/ OUTPUTS	4 INPUT / 3 OUTPUT	8 INPUT / 3 OUTPUT	8 INPUT / 3 OUTPUT	16 INPUT / 3 OUTPUT		
RECORDING QUALITY (FPS)	100 fps @ 1080p / 100 fps @ 720p / 100 fps @ D1	100 fps @ 1080p / 200 fps @ 720p / 200 fps @ D1	100 fps @ 1080p / 200 fps @ 720p / 200 fps @ D1	100 fps @ 1080p / 200 fps @ 720p / 400 fps @ D1		
BURNER	NO	NO	NO	DVD-RW		
CONTROL SOFTWARE	YES	YES	YES	YES		
WEB INTERFACE	YES	YES	YES	YES		
JOG SHUTTLE	NO	NO	NO	YES		
WATERMARKING	YES	YES	YES	YES		
SMART PHONE SUPPORT	iPhone, Android	iPhone, Android	iPhone, Android	iPhone, Android		
RS485 FOR PTZ	YES	YES	YES	YES		
MOUSE	YES	YES	YES	YES		
REMOTE CONTROL	YES	YES	YES	YES		
INTEGRATED PoE SWITCH	YES, 4	YES, 8	NO	NO		
USB PORT	YES	YES	YES	YES		
POWER SUPPLY	12 Vdc	12 Vdc	12 Vdc	230 Va.c.		
DIMENSIONS (MM) WEIGHT (KG)	375 x 285 x 45	375 x 285 x 45	375 x 285 x 45	440 x 460 x 89		
19" RACK COMPATIBILITY	NO	NO	NO	YES		

### **CCTV IP: Network Video Recorders PoE**



#### Technical characteristics p. 77

Pack	Cat.Nos	Network Video Recorders	Pack	Cat.Nos	Network Video Recorders (continued)
1	4 306 73	<ul> <li>NVR PoE 4 cameras</li> <li>4 slots switch with PoE integrated Pentaplex: simultaneous live, record, playback, extraction and remote access</li> <li>Front, mouse or remotely operated</li> <li>Video compression format: H264</li> <li>Number of frames per second for 4 cameras in Full HD resolution</li> <li>up to 25 frames per second for 4 cameras in D1 resolution</li> <li>up to 25 frames per second for 4 cameras in D1 resolution</li> <li>up to 25 frames per second for 4 cameras in D1 resolution</li> <li>Memory: 1 Tb internal hard disk</li> <li>either 28 days recording by 4 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera)</li> <li>or 10 days recording by 4 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera)</li> <li>or 5 days recording by 4 cameras at 25 frames per second in HD resolution (bitrate 4 Mb/s per camera)</li> <li>or 5 days recording by 4 cameras at 25 frames per second in Full HD resolution (bitrate 4 Mb/s per camera)</li> <li>or 5 days recording by 4 cameras at 25 frames per second in Full HD resolution (bitrate 4 Mb/s per camera)</li> <li>Slots for an additional hard disk: 2</li> <li>Monitor output: BNC, VGA and HDMI (maximum resolution: 1080p)</li> <li>USB ports: 2 (for mouse and external hard disk connection)</li> <li>eator HD resultion when cameras are plugged on the switch</li> <li>autor IP set up and detection when cameras are plugged on the switch</li> <li>multiple user profiles</li> <li>recording sivewable on Smartphone or PC,</li> <li>compatible with VMS management software (Cat.No 4 306 21),</li> <li>automatic search for cameras connected to the network</li> <li>capacity for live feed or time-shifted viewing with recording stored on the recorder viewable directly via the web interface</li> <li>broadcast of main and secondary feeds from camera on the network</li> <li>built-in motion detection/video masking/multi-zone video blanking with the option of recording the event on hard disk and/or sending an email</li> <li>event input cont</li></ul>	1	4 306 90	<ul> <li>NVR PoE 8 cameras</li> <li>8 slots switch with PoE integrated</li> <li>Pentaplex: simultaneous live, record, playback, extraction and remote access</li> <li>Front, mouse or remotely operated</li> <li>Video compression format: H264</li> <li>Number of frames per second for 4 cameras in Full HD resolution</li> <li>up to 25 frames per second for 8 cameras in D1 resolution</li> <li>up to 25 frames per second for 8 cameras in D1 resolution</li> <li>up to 25 frames per second for 8 cameras in D1 resolution</li> <li>up to 25 frames per second for 8 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera)</li> <li>or 10 days recording by 8 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera)</li> <li>or 5 days recording by 8 cameras at 25 frames per second in HD resolution (bitrate 2 Mb/s per camera)</li> <li>or 5 days recording by 8 cameras at 25 frames per second in HD resolution (bitrate 768Kb/s per camera)</li> <li>or 5 days recording by 8 cameras at 25 frames per second in Full HD resolution (bitrate 768Kb/s per camera)</li> <li>e Stots for an additional hard disk: 2</li> <li>Monitor output: BNC, VGA and HDMI (maximum resolution: 1080p)</li> <li>USB ports: 2 (for mouse and external hard disk connection)</li> <li>e SATA port: 1 (for external hard disk connection)</li> <li>e Salarm inputs / 3 alarm outputs: NO-NC contacts</li> <li>Advanced functions:</li> <li>multiple user profiles</li> <li>recordings viewable on Smartphone or PC,</li> <li>compatible with VMS management software (Cat. No 4 306 21),</li> <li>automatic search for cameras connected to the network</li> <li>built-in motion detection/video masking/multi-zone video blanking with the option of recording the event on a hard disk and/or ringgering the recorder's event output contact and/or sending an email</li> <li>expacity for live feed or time-shifted viewing with recording the network</li> <li>built-in motion detection/video masking/multi-zone video blanking with the option of recording the event on a h</li></ul>
		- IR remote control, mouse and power supply included			

### **CCTV IP: Network Video Recorders**



#### Technical characteristics **p. 77**

Pack	Cat.Nos	Network Video Recorders	Pack	Cat.Nos	Network Video Recorders (continued)
1	4 306 83	<ul> <li>NVR 16 cameras</li> <li>Pentaplex: simultaneous live, record, playback, extraction and remote access</li> <li>Front, mouse or remotely operated</li> <li>Video compression format: H264</li> <li>Number of frames per second for 4 cameras in Full HD resolution</li> <li>up to 25 frames per second for 8 cameras in HD resolution</li> <li>up to 25 frames per second for 8 cameras in D1 resolution</li> <li>Up to 25 frames per second for 8 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera)</li> <li>or 5 days recording by 16 cameras at 25 frames per second in HD resolution (bitrate 768Kb/s per camera)</li> <li>or 5 days recording by 16 cameras at 25 frames per second in HD resolution (bitrate 4 Mb/s per camera)</li> <li>or 5 days recording by 16 cameras at 12 frames per second in Full HD resolution (bitrate 4 Mb/s per camera)</li> <li>or 5 days recording by 16 cameras at 12 frames per second in Full HD resolution (bitrate 4 Mb/s per camera)</li> <li>Slots for an additional hard disk: 1</li> <li>Monitor output: BNC, VGA and HDMI (maximum resolution: 1080p)</li> <li>USB ports: 2</li> <li>eSATA port: 1 (for external hard disk connection)</li> <li>16 alarm inputs / 3 alarm outputs: NO-NC contacts</li> <li>Advanced functions:</li> <li>multiple user profiles</li> <li>recordings viewable on Smartphone or PC,</li> <li>compatible with VMS management software (Cat.No 4 306 21),</li> <li>automatic search for cameras connected to the network</li> <li>capacity for live feed or time-shifted viewing with recording stored on the recorder viewable directly via the web interface</li> <li>broadcast of main and secondary feeds from camera on the network</li> <li>built-in motion detection/video masking/multi-zone video blanking with the option of recording the event on a hard disk and/or sending an email</li> <li>event input contact on the recorder with recording on hard disk and/or sending an email</li> <li>event input contact on the recorder with recording on hard disk and/or sending an email</li> <li>even</li></ul>	1	4 306 84	NVR 32 camera Pentaplex: simultaneous live, record, playback, extraction and remote access Front, mouse or remotely operated - Video compression format: H264 - Number of frames per second for 4 cameras in Full HD resolution • up to 25 frames per second for 8 cameras in HD resolution • up to 25 frames per second for 8 cameras in D1 resolution • up to 25 frames per second for 8 cameras at D1 resolution • Up to 25 frames per second for 8 cameras at 25 frames per second in D1 resolution (bitrate 768Kb/s per camera) • or 10 days recording by 32 cameras at 12 frames per second in HD resolution (bitrate 768Kb/s per camera) • or 10 days recording by 32 cameras at 12 frames per second in Full HD resolution (bitrate 4 Mb/s per camera) • or 10 days recording by 32 cameras at 6 frames per second in Full HD resolution (bitrate 4 Mb/s per camera) • or 10 days recording by 32 cameras at 6 frames per second in Full HD resolution (bitrate 4 Mb/s per camera) • or 10 days recording by 32 cameras at 6 frames per second in Full HD resolution (bitrate 5 Mb/s per camera) • Slots for an additional hard disk: 7 - Monitor output: BNC, VGA and HDMI (maximum resolution: 1080p) • USB ports: 4 • eSATA ports: 1 (for external hard disk connection) • 16 alarm inputs / 3 alarm outputs: NO-NC contacts • Advanced functions: • multiple user profiles • recordings viewable on Smartphone or PC, • compatible with VMS management software (Cat.No 4 306 21), • automatic search for cameras connected to the network • capacity for live feed or time-shifted viewing with recording stored on the recorder viewable directly via the web interface • broadcast of main and secondary feeds from camera on the network • built-in motion detection/video masking/multi-zone video blanking with the option of recording the event on a hard disk and/or sending an email • event input contact on the recorder with recording on hard disk and/or sending an email • event input contact on the recorder with recording on hard disk

### CCTV IP: video monitors



Technical characteristics p. 78

#### Pack Cat.Nos LCD color monitors

1	4 305 74	7" LCD color monitor with adjustable table support and IR remote control supplied Power supply: 12 Vdc (power supply supplied)
1	4 305 70	17" active matrix color TFT LCD monitor 4:3 picture format, 1280 x 1024 optimal resolution, terminals: BNC (IN/OUT), DC VGA, S-VIDEO Power supply: 12 Vdc (power supply supplied)
1	4 305 71	19" active matrix color TFT LCD monitor 4:3 picture format, 1280 x 1024 optimal resolution, terminals: BNC (IN/OUT), DC VGA, S-VIDEO Power supply: 12 Vdc (power supply supplied)
1	4 305 72	22" LCD color monitor 4:3 picture format, 1920 x 1080 optimal resolution, terminals: BNC (IN/OUT), DC VGA, S-VIDEO, HDMI Power supply: 12 Vdc (power supply supplied)
1	4 305 73	32" LCD color monitor 4:3 picture format, 1920 x 1080 optimal resolution, terminals: BNC (IN/OUT), DC VGA, S-VIDEO, HDMI Power supply: 12 Vdc (power supply supplied)

Pack	Cat.Nos	Accessories and devices
10 10 5 10 10 1	4 306 15 4 306 17 4 306 18 4 306 19	BNC crimp connector with plastic housing BNC screw-on connector Female/female BNC coax cable 12 V plug connector with screw terminals 12 V plug connector with cable Wall mounting for 17", 19" and 22" LCD monitors - Adjustable mounting (horizontally and vertically) - Mounting points 2
		- Mounting points 2 - Mounting kit included

### **VMS** monitors

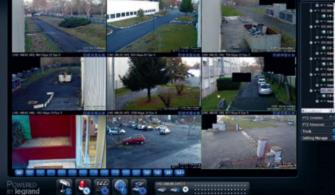
Mosaic view



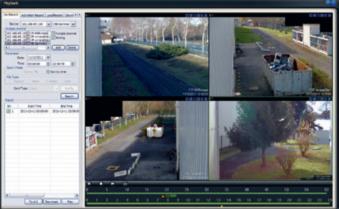
4 306 21

Concession (Concession)			
	VMS management software	Cat.Nos	Pack
	<ul> <li>PC software allowing:</li> <li>views from cameras to be centralised:</li> <li>IP cameras connected directly to the network or recorded using an NVR</li> <li>Analog cameras connected to a DVR LAN recorder or a video encoder</li> </ul>	4 306 21	1
- Ryberk	• recordings stored on DVR LAN and NVR recorders to be accessed		
he here a server a server a	one or more cameras to be recorded locally via the management PC		
	<ul> <li>local or remote recordings to be searched for and exported</li> </ul>		
100 (100) (100) 100 (100) (100) (100) 100 (100) (100) (100) (100)	<ul> <li>cameras to be managed in accordance with the plan</li> </ul>		
nd	mobile cameras to be controlled     remotely configuring IP cameras, NVRs, DVRs and		
Band Bin Bant'tra Batt'tra 22 1. Bitt-bin Bitter bit Batter	encoders • automatically searching for IP cameras, NVRs, DVRs and encoders connected to the network		
	- Capacity 1000 cameras, 36 maximum simultaneously		
	<ul><li>Graphic interface</li><li>Up to 8 displays</li></ul>		
Anna Anna A	- Use of this software requires all the products (IP cameras, DVR, NVR) to be connected to the Ethernet network		
California	<ul> <li>Minimum configuration:</li> <li>Operating system: Windows XP, Windows Vista,</li> </ul>		
	Windows 7 • Processor: Intel Core i5-760		
Installation p	• RAM: 4 Gb		
	<ul> <li>Sound card: standard</li> <li>Graphics card: NVIDIA GeForce 9400GT or above</li> </ul>		

Network card: 10/100/1000 Ethernet



#### ew



plan view (camera control)



### Legrand cabling system LCS<sup>2</sup>



Pack	Cat.Nos	Fixed 19" LCS <sup>2</sup> cabinets

Easy cable management: ability to fix cable management rings Cat.Nos 0 465 41/42 and cable ties DLP format cable entries at the top and bottom, bendable, with ability to attach cables using cable ties Rear pre-cut cable entries **400 mm depth cabinet** 

					1 A A A A A A A A A A A A A A A A A A A
		Capacity	Width (mm)	Height (mm)	Load capacity (kg)
1	0 462 00	6 U Î	600	350	18
1	0 462 01	9 U	600	500	27
1	0 462 02	12 U	600	600	36
1	0 462 03	16 U	600	800	48
		580 mm dep	th cabinet		
1	0 462 06	9U .	600	500	27
1	0 462 07	12 U	600	600	36
1	0 462 08	16 U	600	800	48
1	0 462 09	21 U	600	1000	63

#### Area distribution box

	For distribution of low current in an area fitted with 1 to 12 RJ 45 sockets Centralise connections to guarantee flexibility and adaptability of the installation Installed on false ceiling or false floor Connect to the patch panel or the floor cabinet Conform to standards UTE C 15-900, NF C 15-100, NF C 20-730, EN 50-174.2, CEI 60950, ISO/IEC 11801 Ed. 2.0, EN 50173-2 and TIA/EIA 568 Color code and wiring schemes T 568 A and T 568 B Cords and cables: ISO 11801 Ed.2.0, EN 50173-1, TIA/EIA 568 Technical characteristics: - polycarbonate PC hood - polypropylene PP base - RAL 7035 - hold connector units in place in the box: 100 N - Cables anchored on support using Colring cable ties <b>Self-assembly area distribution box</b>
35 40	Used for fitting fibre optic accessory units
	Power over Ethernet (PoE) injectors Midspan
35 01	4 inputs/outputs Supply 4 Wi-Fi access points

		Supply 4 Wi-Fi access points
		Attache directly to the patch panel conform with
		standard IEEE 802.3 af
1	0 327 37	1 input/1 output

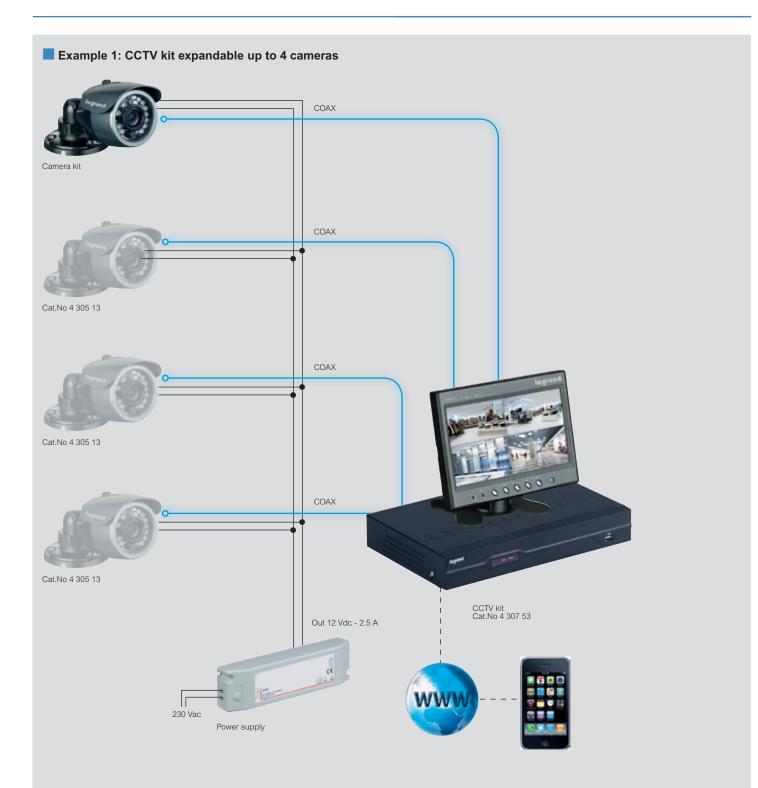
Pack	Cat.Nos	Cables for local networks cat. 5e
Раск	Cat.Nos	Cables for local networks cat. Se
1		<b>F/UTP - 4 pairs</b> Length 305 m Supplied in cardboard box. Weight 12 kg Length 500 m
		Supplied on reel. Weight 21 kg
	PVC	RJ 45 patch cords and user cords cat. 5e RJ 45 - RJ 45 right F/UTP screened impedance 100 $\Omega$
1 1 1 1	0 516 41 0 516 42	Grey Length 1 m Length 2 m Length 3 m Length 5 m
		Ethernet switches 100 Mbps
		Mounted in the patch panel Conform with standards IEEE 802-3, EN 500 81-1 and EN 500 82-1 (Conformity with EMC requirements)
1		Switch units for patch panel Clip directly onto the patch panels 7 RJ 45 ports at the front, 1 of which is a cascade port Power supply with transformer provided
1	0 335 05	6 RJ 45 ports + 1 LC type optic port with front-mounted cascade 100 base FX type LC Power supply via transformer provided
1	0 332 93	<b>Boxes to be installed on shelf</b> 5 RJ 45 port switch Power supply via transformer provided Dimensions: 116 x 70 x 25 mm
1	0 332 91	8 RJ 45 port switch Power supply via transformer provided Dimensions: 171 x 98 x 29 mm

0.33

03

1

### **Connection examples**



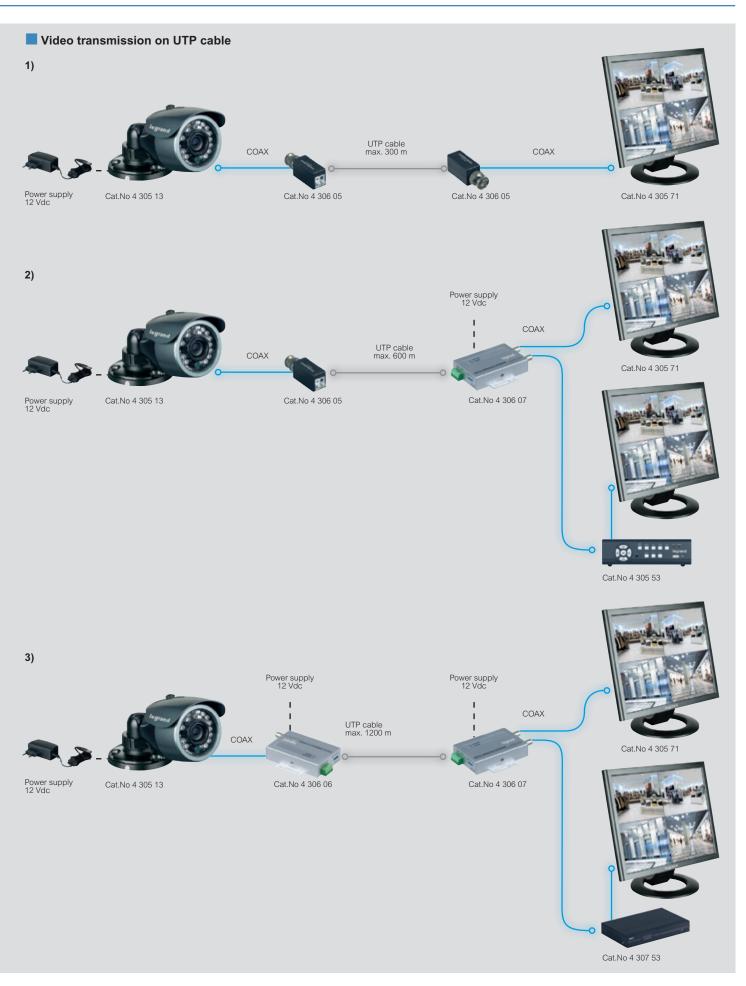
**NOTE:** the power supply cables must be of adequate cross-section in relation to the distance and the corresponding voltage drop

### **Connection examples**

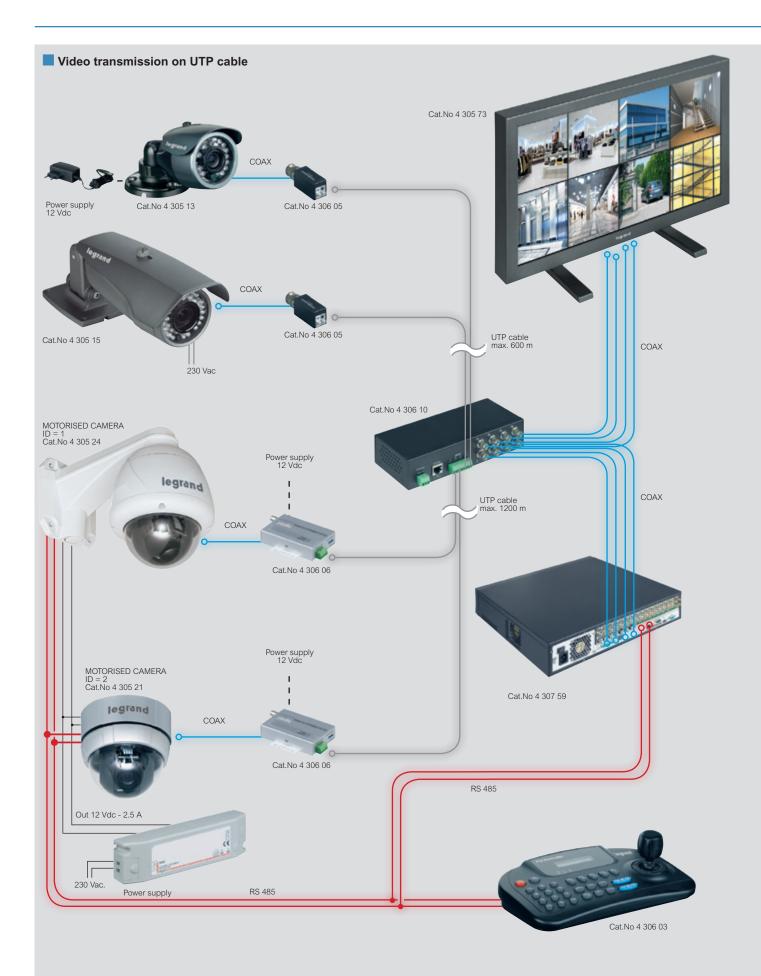


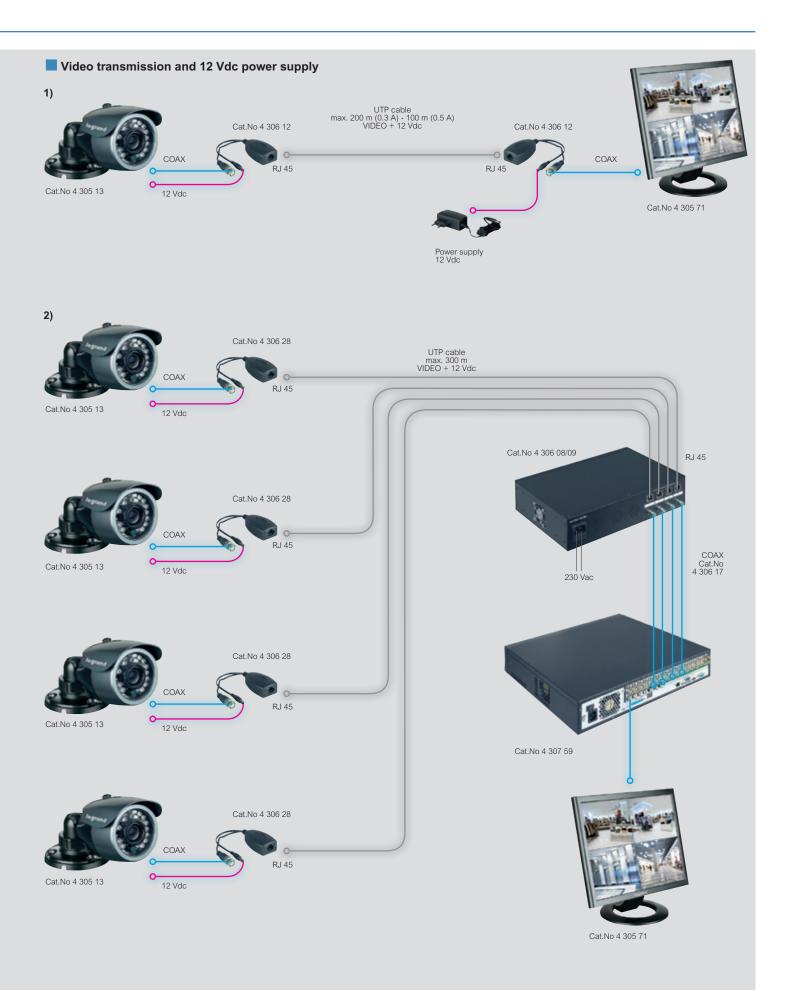
230 Vac

**NOTE:** ensure that the power supply is suitable for the type of camera The power supply cables must be of adequate cross-section in relation to the distance and the corresponding voltage drop

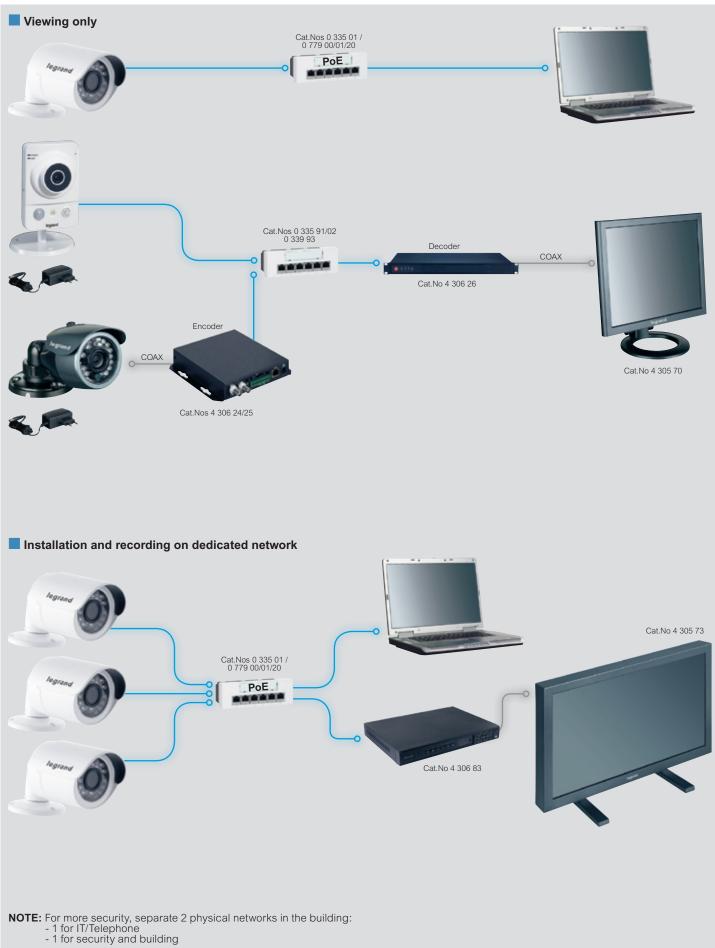


### **Connection examples**

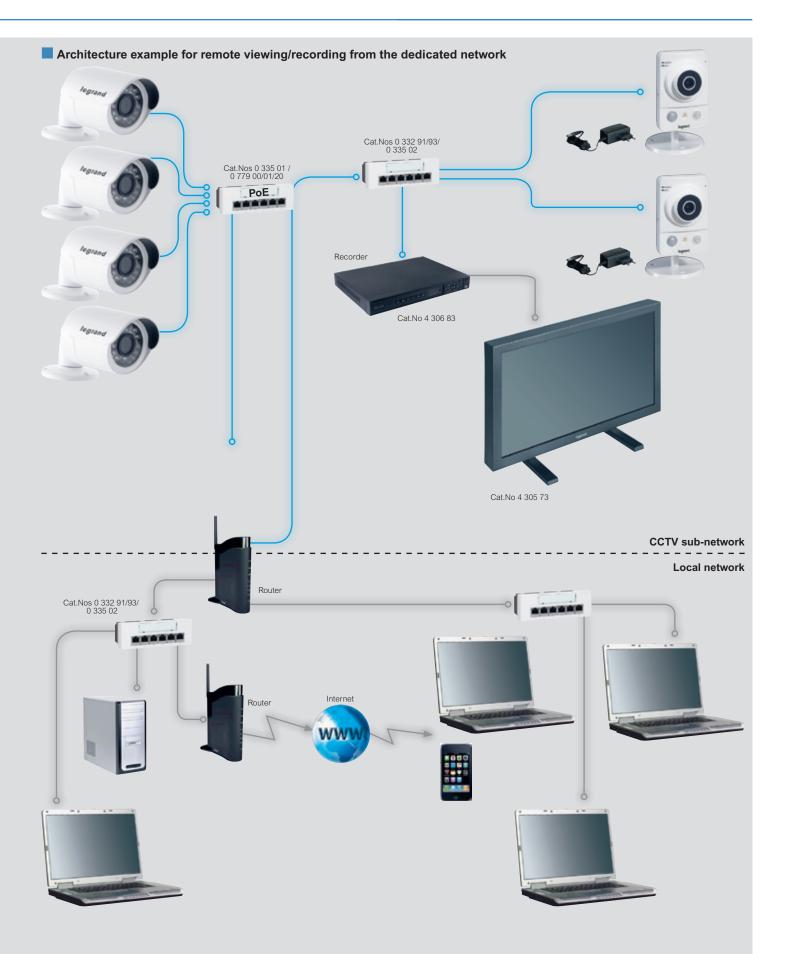




### **Connection examples**



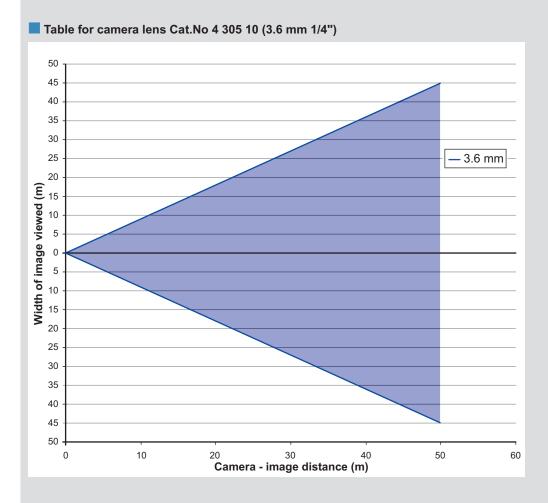
# L7 legrand



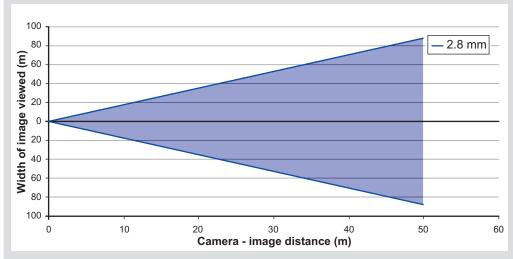
### Choosing the right devices for CCTV analog

lenses for compact cameras

Compact cameras are sold with a specific lens installed (non-replaceable). The main features of the lenses installed are indicated below For more detailed information, please refer to the technical datasheet of the individual camera



#### Table for camera lens Cat.Nos 4 305 00 (2.8 mm 1/3")



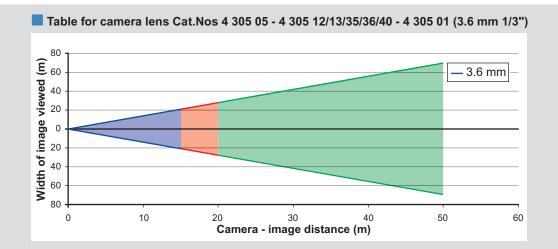
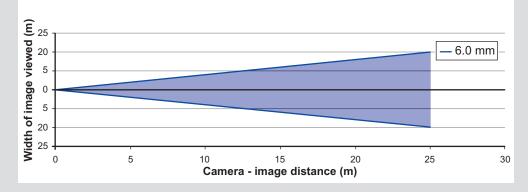
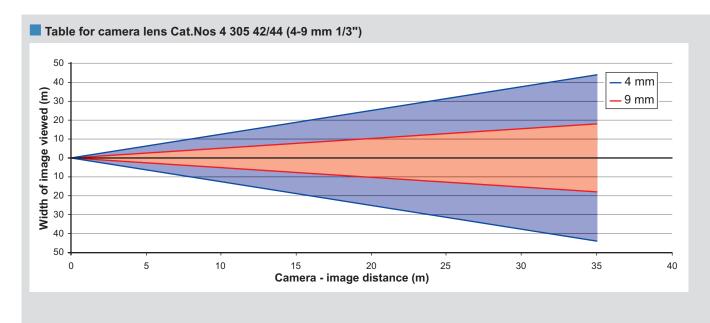


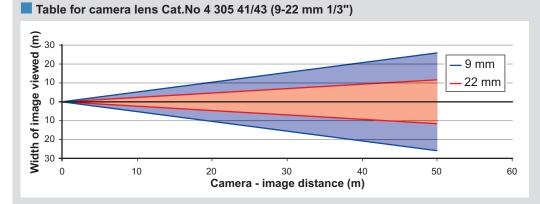
Table for camera lens Cat.Nos 4 305 14 (6.0 mm 1/3")

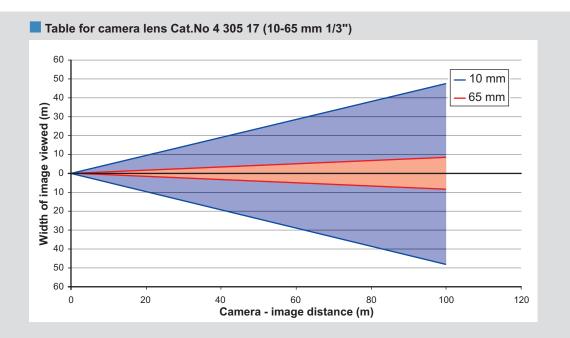


## Choosing the right devices for CCTV analog

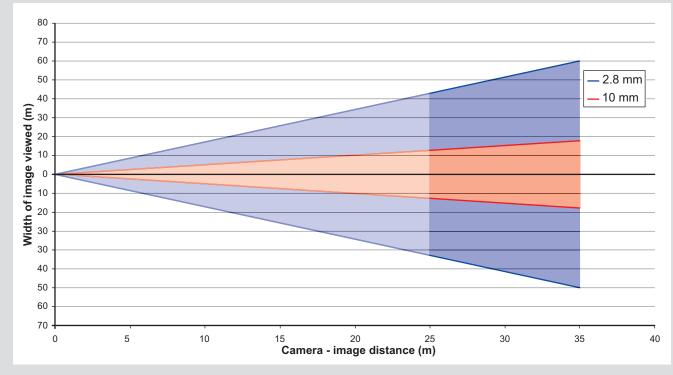
lenses for compact cameras





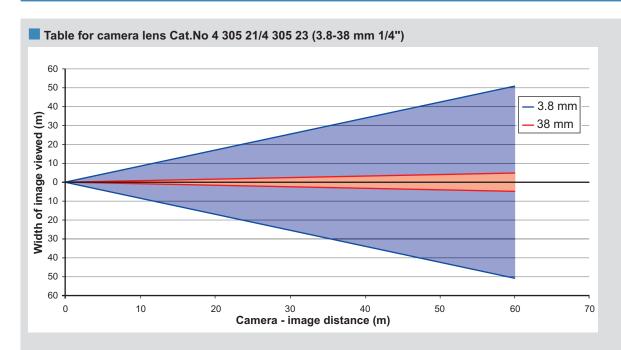


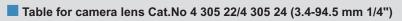
#### Table for camera lens Cat.No 4 305 04/07/08/20 - 4 305 02/06/09 (2.8-10 mm 1/3")

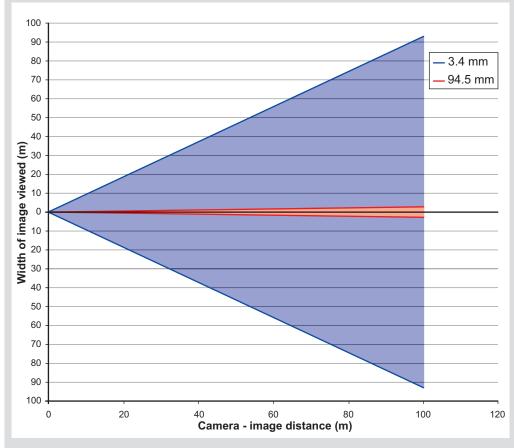


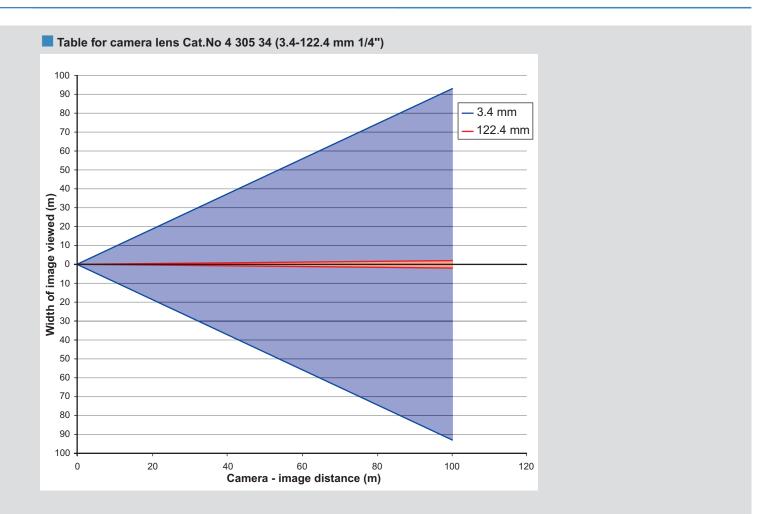
### Choosing the right devices for CCTV analog

lenses for compact cameras

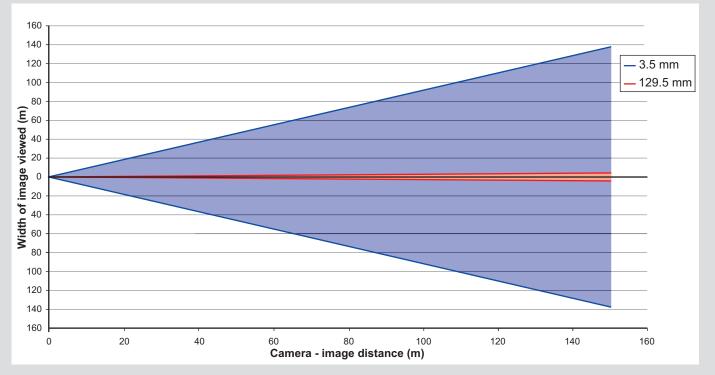






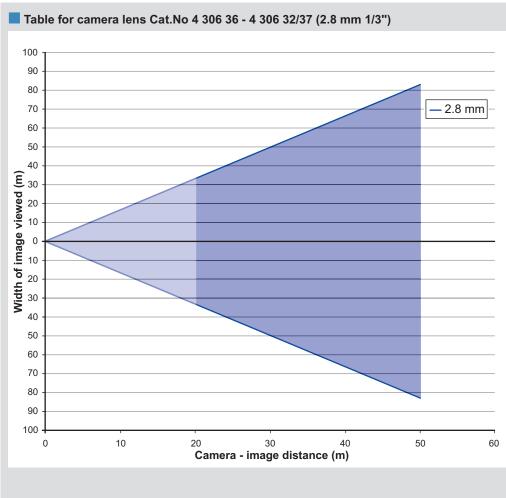


#### Table for camera lens Cat.No 4 305 25 (3.5-129.5 mm 1/4")

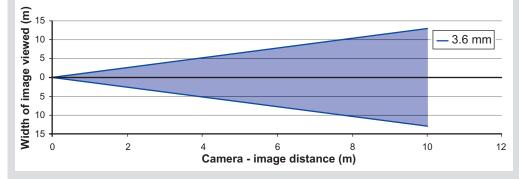


### Choosing the right devices for CCTV IP

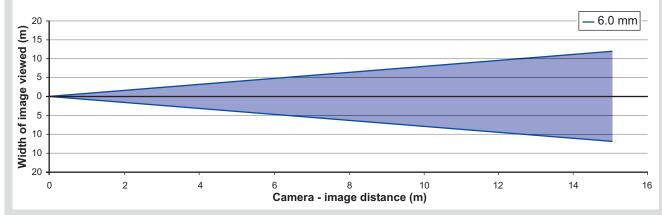
Lenses for compact cameras



#### Table for camera lens Cat.No 4 306 38/30 (3.6 mm 1/3")







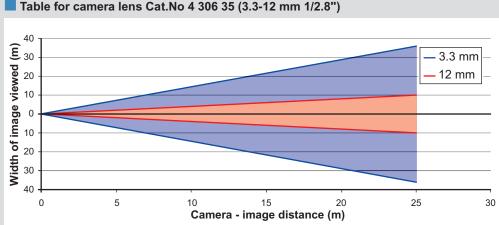
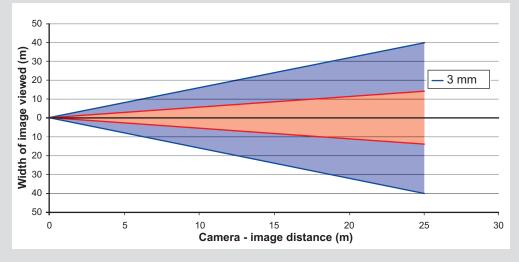
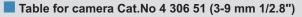
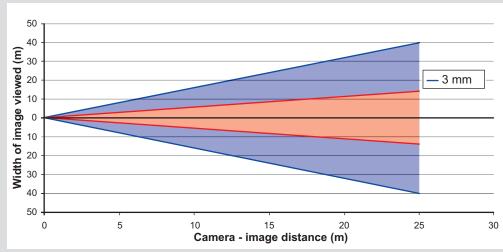


Table for camera lens Cat.No 4 306 35 (3.3-12 mm 1/2.8")



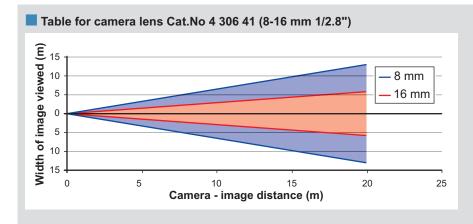




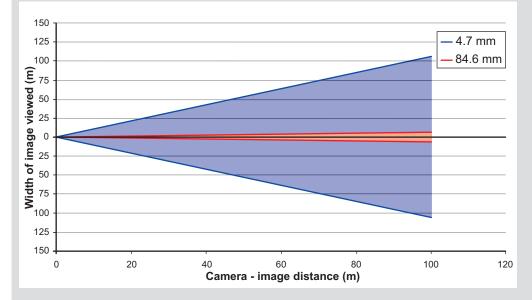


### Choosing the right devices for CCTV IP

Lenses for compact cameras

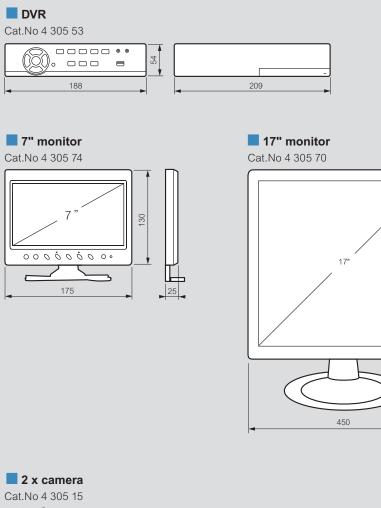


#### Table for camera lens Cat.No 4 306 52 (4.7-84.6 mm 1/3")



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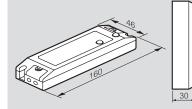
### Dimensional data for CCTV analog CCTV kit





1 x power supply





Cat.No 4 306 20

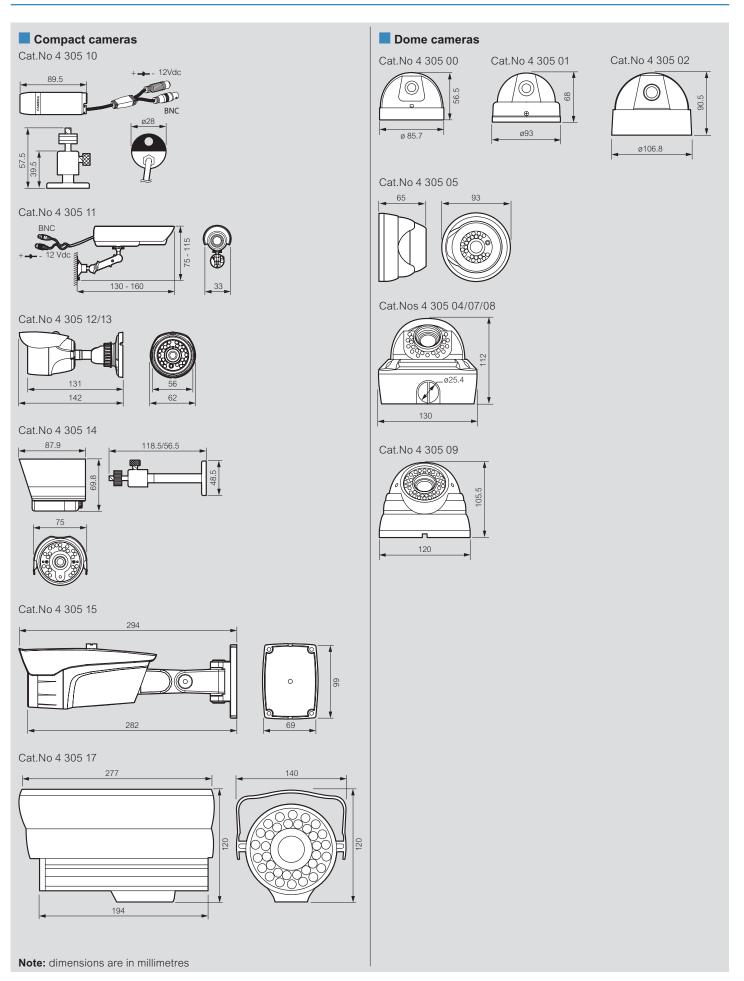


450

# L<sup>1</sup> legrand

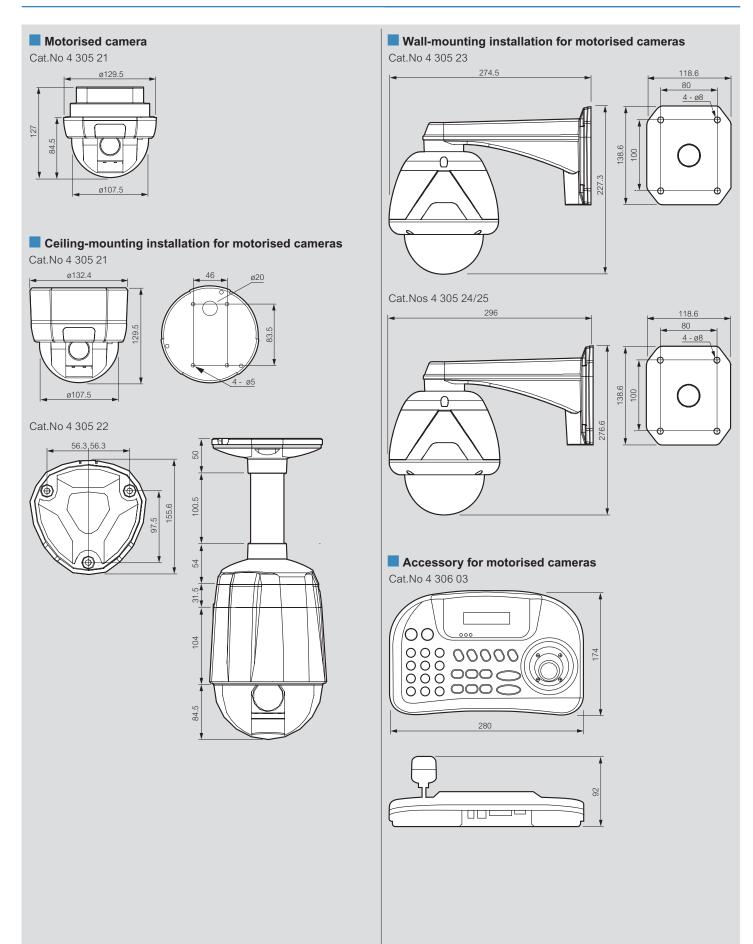
### Dimensional data for CCTV analog

#### compact and dome cameras



### Dimensional data for CCTV analog

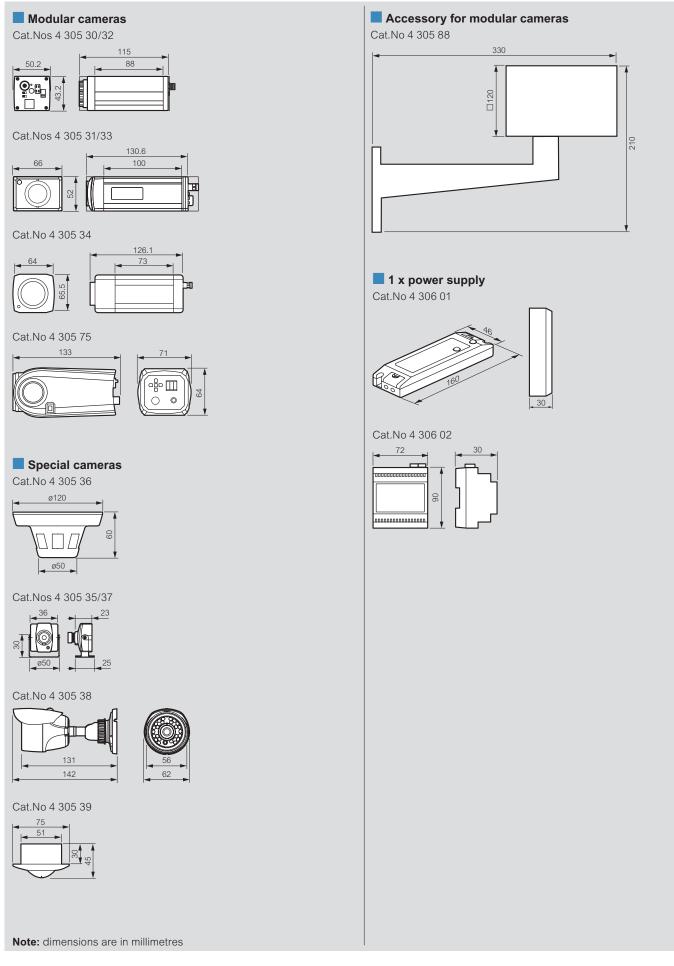
#### motorised cameras and accessories



# L<sup>1</sup> legrand

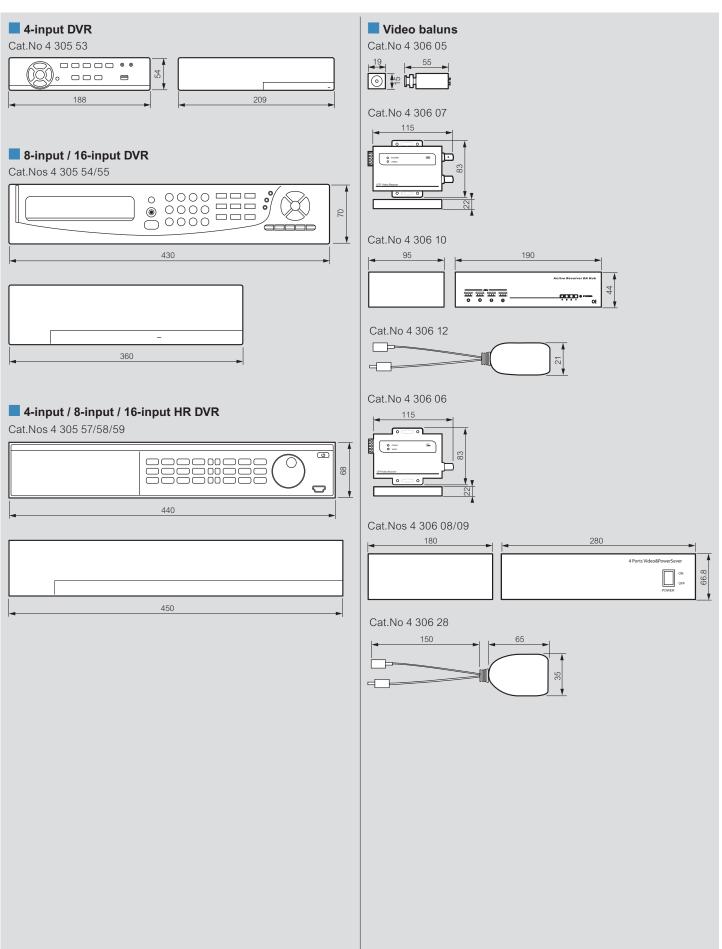
## Dimensional data for CCTV analog

special and modular cameras, power supply and accessories



## Dimensional data for CCTV analog

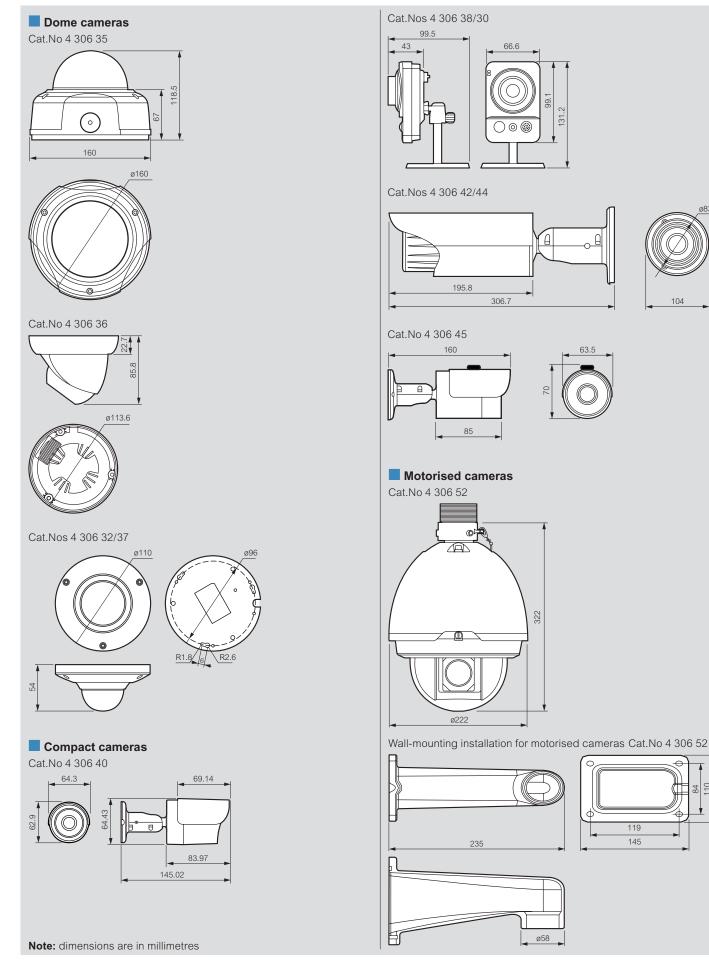
#### DVR and video baluns



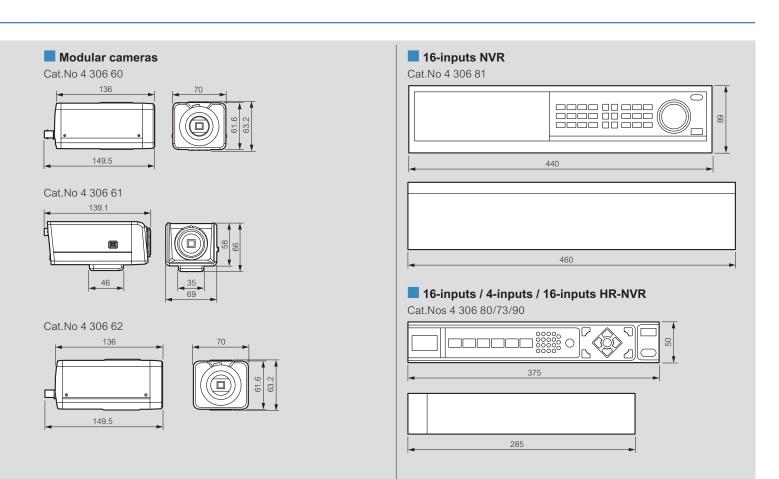
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#### **Dimensional data for CCTV IP**

#### cameras and NVR



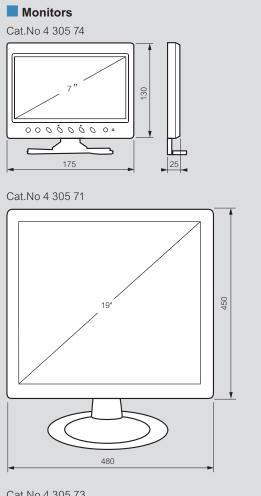
110

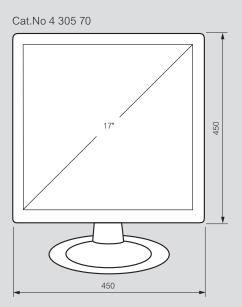


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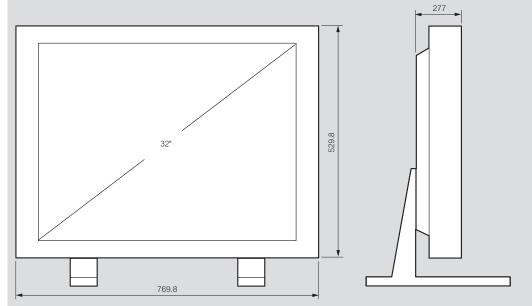
## Dimensional data for CCTV analog and IP

monitors





Cat.No 4 305 73



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In accordance with its policy of continuous improvement, the Company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in this catalogue are for guidance and cannot be held binding on the Company.

### Notes




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