

## **CCTV Glossary**

In order to choose the best CCTV Security System and CCTV Cameras you need to understand some of the basic terminology. Below is a glossary of CCTV terms to help you choose your Surveillance system and CCTV Cameras and CCTV Lenses.

### **Aperture**

Aperture is the area of the camera lens that gathers light. The Iris of the cctv lens controls the size of aperture.

### **Auto Iris**

Auto Iris Lenses adjust for changing light conditions in a camera view. If the sun shines on a camera with an auto iris lens, the lens will adjust the amount of light so the picture remains clear.

### **CCD**

Charge Coupled Device - a light sensitive imaging device for almost all cameras. Typical sizes for CCTV cameras - 1/2", 1/3", 1/4".

### **C Mount**

Type of screw-on mounting for CCTV Camera Lenses. C Mount lenses need an adapter ring when used with CS Mount camera (see CS Mount).

### **Compression**

Compression Techniques are used in Digital CCTV to reduce the file sizes of recorded video images. Typical compression formats used for video are: MJPEG, MPEG-4 & H.264.

### **CS Mount**

More recent type of mounting for CCTV Camera Lenses. Designed for 1/2", 1/3" 1/4" CCD cameras, CS-Mount is the more common lens mount used today in CCTV cameras.

### **Day/Night Camera**

A camera that is 'Day/Night' means it can capture video in both day and nighttime. In low light conditions, the Sony Day/Night chipset switches from color to black & white at night to enhance the picture quality

### **DSP**

Digital Signal Processing - a technique by which video quality can be improved by adjusting parameters of the video signal.

### **DVR**

Digital Video Recorder – Camera images are converted to a digital signal and stored on a storage Hard Disk. This is now the standard CCTV recording practice.

### **ExView**

Sony Chipset type that offers very good images in both day and night time. Typically, cameras with Ex-View chipset have good Low Light (LUX) levels.

### **FStop**

The Ratio of Focal Length to the diameter of the lens. The smaller the F-Stop number, the more light is passed.

### **Field Of View**

The view of the camera - in relation to the angle of view and distance of the object from the lens.

### **Frame**

A frame consists of 2 interlaces fields. 25 Frames are created every second.

## **Frame Rate**

The quality of a Digital Surveillance Systems is often determined by the Total Frame Rate it can record at. The higher the Frame Rate, the higher the quality of recording and the more Real Time your CCTV recording will be - Real Time recording for 1 camera is 30 Frames Per Second (NTSC).

## **IP Rating**

Ingress Protection Scale - 2 numbers indicating the protection level of an outside enclosure - e.g. IP68

## **IR Cut Filter**

An IR Cut Filter is an extra filter inside the camera that moves behind the camera lens when it gets dark. A camera with an IR Cut Filter will produce very high quality images in low light conditions.

## **Iris**

Device inside a lens which opens and closes as light conditions change which adjusts the amount of light passed

## **JPEG**

Joint Photographic Experts Group - an image compression technique used for still images

## **Lens Mount**

See CMount or CS Mount

## **Luminance**

The brightness of a video signal

## **LUX**

Used to specify how sensitive cameras are to light (measured in lumens/sq metre). e.g a camera with a LUX Level of 0 can see in pitch black. The lower the LUX Level the better the camera will see in the dark.

## **Motion Detection**

Recording method for digital surveillance systems. When someone walks in front of a camera, the pixels change and the DVR defines this as motion. The surveillance system will then record these images to the hard disk. This is a popular recording setup as every event recorded is actually motion driven as opposed to a static image if the system was set to record 'round-the-clock'.

## **MPEG**

Motion Picture Experts Group - a video compression technique for video images. MPEG-4 has fast become the Digital CCTV standard recording compression format. MPEG-2 is used for DVD Recording quality.

## **Multiplexer**

A Multi Screen CCTV device that allows input of 4, 9, 16 etc cameras and provides a 'Mutli-Plexed' (or split screen) display of those cameras

## **Noise**

Video Signal interference that usually appears as graininess or snow on the picture.

## **PAL**

Phase Alternate Line - Video encoding standard for Europe.

## **PTZ**

Pan Tilt Zoom - a camera which can be controlled via Joystick or DVR and moved up/down, left/right and zoomed in/out.

## **Peak to peak**

Video Signal measurement from the base of the Sync pulse to the top of the white level. A full video signal should be one volt.

## **Quad Splitter**

A CCTV device used to display 4 cameras on one monitor.

**Resolution**

The number of horizontal lines a system can display.

Digital Resolution (e.g. 720 x 576)

720 = number of points in each row that make up the picture

576 = number of rows

**RG59**

A type of CCTV Coaxial cable used to transmit cctv camera video signals to a DVR or CCTV System.

**Sensitivity**

The sensitivity of a camera is often configured on your digital surveillance system. Motion Detection based recording uses relies on the sensitivity of the cameras to trigger recording

**Telemetry**

Control of PTZ cameras is provided using Telemetry Control. This signal is sent down 'twisted pair' cable or along the same coaxial cable the video signal is being sent down. Typical Telemetry signals are RS-485 or RS-422.

**Varifocal Lens**

A cctv camera lens whose focal length / viewing angle can be manually adjusted to suit the camera view required. Typical Vari Focal lens lengths are: 2.5mm-10mm, 3.5mm-8mm, 5mm-50mm.

**Video Splitter**

CCTV device that splits the video signal from a camera (or cameras) so it can be used more than once.

**Zoom Lens**

A lens which has variable focal lengths. The image can be 'zoomed' in or out while the view of the camera remains in focus.