

Closed Circuit TV System Selection Guide

CAMERA TYPES



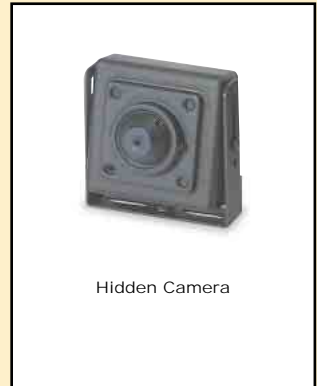
Bullet Camera



Dome Camera



Box Camera
(Lens not included)



Hidden Camera

CAMERA SELECTION

There are 6 factors to take into account when selecting a camera to fit your needs.

1. Consider what you're going to be monitoring.

If the images are too small, it can make identification difficult. If images are too big, they may not offer enough coverage.

- Determine the desired field of view in horizontal and vertical feet
- Determine how far away the camera will be mounted in feet
- See chart to choose approximate lens focal length needed
- Consider using a varifocal lens which can be manually adjusted to increase or decrease the field of view

2. Decide if the camera will need to be mounted indoors or outdoors.

- For indoor dry locations, all cameras are suitable
- For general-duty outdoor or damp locations, choose a weatherproof camera

- For very wet, rainy, washdown applications, choose a waterproof camera or outdoor housing

3. What time of day will the monitoring occur?

- For daytime or indoor lighting applications, all cameras are suitable
- For urban nighttime or low light applications, choose a camera with a minimum light rating of 0.03 lux or lower
- For total darkness conditions, choose a camera with infrared LEDs

4. Determine a camera type.

- Bullet cameras—compact, durable, most are weatherproof, integral lens, low-profile installations
- Dome cameras—vandal resistant, lower profile, concealed camera position, more aesthetically pleasing
- Traditional box cameras—large size, separate lens, mounting, and power supply selections, retrofits into existing systems
- Pinhole cameras—very small size, can be hidden easily

5. Decide between color or black and white imaging.

- Color monitoring requires more light, but offers a more natural, identifiable image
- Black and white images are usually higher resolution
- Most color cameras with low lux ratings automatically switch to black and white as light levels decrease to preserve resolution and detail

6. All cameras need a power source.

Decide between a 12VDC or 24VAC power source.

- Plug-in transformers are often used to convert 120VAC to low voltage; extension cables are available if power source is not nearby
- 24VAC cameras may be individually powered or connected to a central multicamera supply

Environmental Light Conditions

Lux is the unit of measure of light sensitivity for a camera. The lower the lux, the better the camera can view in lower light conditions.

Day—Minimum light level of 1.0 lux

Low Light—Minimum light level of 0.01 lux

Night Vision—Minimum light level of 0.0 lux

Camera Type	Light Condition	Lux
Daylight Cameras	Daylight	10,000
	Overcast Day	1000
	Very Dark Day	100
	Twilight	10
	Deep Twilight	1
Low Light Cameras	Full Moon	0.1
	Quarter Moon	0.03
Cameras with Infrared LEDs	Starlight	0.001
	Total Darkness	0.0

Intensifier Cameras

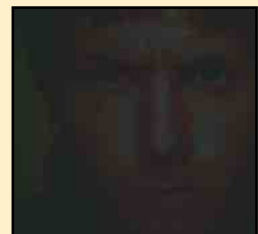
Intensifier technology amplifies and maximizes existing light to generate a color picture, even in extreme darkness (min. light level of 0.0002 lux). The screen shots show the contrast between a typical infrared camera as well as a standard camera vs. intensifier camera, taken at the same time from the same angle and location.



Intensifier Camera



Infrared Camera



Standard Camera