

Useful Lens Tips...

In order to pick the right lens for the right location, it is useful to understand the main differences in CCTV lenses.

- Fixed Iris Lens - the lens can not be adjusted to alter the amount of light that it lets through to the camera.
- Manual Iris Lens - by manually adjusting the "Iris Ring" on the lens, you can alter the amount of light that is let through to the camera.
- Auto Iris Lens - the lens and the camera work together to continuously and automatically optimise the amount of light allowed through to the camera by controlling the lens' iris using a small electric motor built into the lens. Auto iris lenses come in 2 types:- video and direct drive.



Video Drive Lenses

This lens type has a built in electronic amplifier that is required to correctly control the opening and closing of the lens iris.

Direct Drive Lenses

This lens type relies on the camera having a built in electronic amplifier to control the opening and closing of the lens iris, which means that Direct Drive lenses are usually cheaper than Video Drive lens. If a camera can use either lens type, Video Drive (VD) or Direct Drive (DD), then it makes sense to use the Direct Drive lens as it saves money and does an equally good job as the Video Drive.

Which lenses should be fitted externally?

Auto iris lenses control the amount of light that reaches the camera in the same way that your pupils contract and dilate to optimise your own vision in different levels of illumination. For external applications, auto iris lenses have the advantage over fixed and manual iris to get the best out of a CCTV camera by opening the iris in low light and closing the iris in bright sunshine.

CCTV camera technology does not stand still and the electronic iris of CCTV cameras now do a great job in helping them to see adequately in a wide range of lighting conditions with just a fixed iris lens. The "Advanced-Vision" range of CCTV cameras (code CCT104, CCT144) all use a fixed iris lens without any real detriment when used externally, by relying solely on their advanced electronic iris to handle varied lighting conditions with great success.

Which lenses should be fitted internally?

If a camera is used internally in a shop or externally where there is a consistent level of light, a manual or fixed iris lens is often adequate.

Electronic Iris

This refers to the camera's NOT THE LENS' ability to electronically compensate for scenes with too much or too little light to produce a balanced picture regardless of what lens is used with the camera.

Angles of View

The smaller the angle of view, the greater the magnification of the lens. For example, if you require a lens to read a car number plate coming through a gate located at a distance of 18 metres from the camera, you will need a lens with a narrow angle of view, say 12 or 16mm. If you still need to view and record a wider scene away from the gate then you will need a second camera with a wider angle of view, say 4mm. As a guide to angles of view, please see our separate lens viewguide.

NB. we have revised all our camera lens angles, previously given by our lens manufacturers, figures have now been calculated using monitor images and refer to usable horizontal angles of view.

**The final choice of lens and camera will ultimately rest with the customer's requirements, budget and expectations.
The successful installer providing the best possible solution for the customer's budget.**

Please Note

These "Technical Tips" help sheets aim to answer commonly asked questions in a concise and informative manner - they are for advice & guidance only and do not replace any of the manuals or other literature supplied with our products.

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