

Frequently Asked Questions

Quick® Q Watch™ PIR detector

Does sunlight affect the PIR?

If the sun is low and allowed to shine directly into the face of the detector it will reduce efficiency. The sun shield (part no Q 420) should be used and the detector positioned in such a way as to avoid direct sun light.

How does the PIR perform in different weather conditions?

Different ambient temperatures will affect the performance of PIR detectors. A temperature sensor is fitted which works in conjunction with the micro controller to adjust the sensitivity and even out the detection performance.

How is the performance affected in high temperatures?

Performance will drop in high temperatures. The temperature sensor increases the amplifier gain to compensate.

Do you get interference from radio hams?

You could get interference from many sources. Radio hams have a band from 430 to 440Mhz but it is an ISM band (Industrial Scientific Medical) which means that it is not an exclusive right for hams to use it. The possibility of interference is very remote. The system will detect if it is being jammed and indicate this with a message and if it is really serious it will also provide a tamper.

How do animals affect the PIR?

Because animals emit the same wavelength as humans it is possible to detect them. The micro controller will try to minimise these false activations which is easier if the animal is at a distance. If the animal passes through the creep zones it is much harder to differentiate. Under these conditions it is recommended that the creep zones are blanked out.

How does the PIR cope with strong winds?

The detector constantly adjusts its sensitivity according to the background noise. In windy conditions the sensitivity will be reduced. The PIR fixing is very strong and will not move. However, if the mounting moves i.e. a post, then the picture that the PIR sees will also move and could cause a false activation. Again, the micro controller will try to differentiate.

Will birds cause false activations?

Flying birds are moving too fast to be detected but if birds settle on fences etc in front of the detector they could be detected. The micro controller will again under these conditions try to differentiate.

What type of batteries does it use and how long do they last?

The detector uses ordinary alkaline 1.5 volt C cells which are easily obtainable. Under normal conditions and allowing for four polling commands each hour, the battery life will be in excess of one year. The battery condition of all the PIR's on the system can be viewed remotely via the Q Hub. The walk test instrument and pager can also show the signal strength and battery condition of each PIR.

What is the transmission range?

The transmission range is 1km line of sight (has been successfully tested to 2km) using the 1/4wave PIR aerial and 1/4wave masthead aerial. The range can be increased to many kilometres by fitting masthead/repeaters along the way.

Do you sell repeater transmitters?

The masthead can become a repeater by just a switch change. It requires only 12 volts DC @ 30mA.

How do you align the PIR?

The detector is fully adjustable for Left, right, up and down angles. Mounting height is 2.5 metres. The detector angles are locked by tightening socket head stainless steel screws. The correct angle can be found by using the walk test instrument. Walk in and out of the area to be covered while observing the walk test instrument and mark out the ground with markers or cones.

Does the PIR have brackets?

The bracket which comes with the PIR is made of glass nylon and is extremely strong.

Can you install the PIR on poles?

The bracket may be wall mounted or strapped to various diameter poles using banding or jubilee clips. The screw heads of the banding or clips can be concealed within the wall plate.

Is it vandal resistant?

The PIR detector is made of 3mm thick polycarbonate which is very strong and absorbs shock without sustaining damage. The brackets are locked in position using stainless steel socket cap screws. When these screws are tightened, excessive force is required to move the detector and such movement would activate the shock sensor.

Is it waterproof?

The PIR detector is totally submersible IP67 rated

Can it be powered locally using mains?

Yes. As long as you can provide a 3 volt DC supply it will work.

Does the Q Watch comply to the BS8418 standard?

In order to comply the detector need only have an anti tamper capability. Quick's technology has gone much further in introducing various types of tamper such as anti cloaking and shock as well as the basic tamper switch. Also the transmission code has encryption and rolling codes so that the RF link cannot be mimicked. The masthead also detects radio jamming. These features go far beyond the current requirement of the BS specification.

What equipment is needed to connect the masthead aerial to the Q Hub?

The aerial is connected to the MASTHEAD junction box (IP67 rated) via a length of 50ohm RG58 cable (max distance 4.5m which should not be extended).

From the masthead box an RS232 cable is run in cat5 to the Q Hub and should be no longer than 100ft. The MASTHEAD needs a 12v supply. A D type connector is used to connect into the back of the Q Hub.

I think we will need a junction box behind the hub which allows easy connection of cat 5 to a short lead with D connector and 12 volt dc supply.