



## EV 600 Series

### Passive Infrared Detectors

#### Features:

- Integral coverage up to 60 metres
- Unique "4D" signal processing including Oversampling for elimination of false alarms
- Precision mirror optics/step focus/gliding focus curtain
- Temperature compensation
- Calibrated sensitivity
- Remote control of walk test
- Test facility
- Various European approvals pending

#### EV 640

- Expanded Alarm Memory for latching of first and subsequent alarms
- Programmable "Double-Checker"
- "Eye-to-Eye Checker"

The EV 600Series is a range of microprocessorcontrolled PIR detectors which combine significant innovations in signal processing, optical and electronic design. This combination makes the detector extremely reliable. Its dynamic range enables the detector to be installed in almost all classes and types of applications. The EV 630 takes PIR technology to a new advanced level, which combines the highest level of security with the highest level of false alarm resistance.

## SPECIFICATIONS

### Integral coverage up to 60 metres

Through Aritech innovations in the field of mirror design, one detector can cover applications requiring detection from 5 to 60 metres. This includes wide angle, long range and curtain patterns. By using simple snap-on masks, twelve different patterns can be selected.

### Unique "4D" signal processing

"4D" processing allows the detector to precisely identify the characteristic patterns of signals coming from genuine human movements. Several stages and criteria of signal processing are applied to ensure that only genuine signals are accepted by the detector. This signal processing technique offers extremely reliable performance and excellent immunity from false alarms caused by eg. static heat sources, air turbulence from air conditioning, visible light or rapid changes in background temperature. Oversampling allows the recognition of slow build-up of "noise" (eg. environmental temperature instability, turbulence, vibration) and its suppression before it can make the detector unstable. "Spikes" and shocks are handled in a similar way.

Different settings of the "4D" processing are provided for wide angle, curtain/long range and high security applications.

### Precision mirror optics

The EV 630 Series uses precision mirror optics which provide superior signal to noise ratio. The use of a mirror also makes possible the system of step focus optics, which ensures uniform sensitivity throughout the detection area.

### Gliding focus curtain

A gliding focus curtain is formed by a mirror, which is constructed with an infinite amount of focal lengths and which glides its focal length throughout its entire pattern. This ensures equal and optimum sensitivity and extreme high stability throughout its range.

### Temperature compensation

Automatic and dynamic sensitivity adjustment provides stability and reliable detection at all environmental temperatures between -18°C and +50°C.

### Calibrated sensitivity

The sensitivity of each EV 630 Series detectors is calibrated according to extremely tight tolerances in order to ensure that all detectors offer the same consistent performance.

**Besides all the features of the microprocessor controlled EV 630 range of PIRs, the EV 640 range has :**

#### Memory of first and subsequent alarms

The extremely flexible Expanded Alarm Memory system allows separate identification of the first detector to alarm and those which have alarmed subsequently.

#### Programmable "Double-Checker"

The "Double-Checker" mode allows the operation of two or more sensors together to verify an alarm allowing each one to be used in a high sensitivity mode even in difficult environments. The communication between detectors takes place via the alarm memory and requires no additional wiring.

#### Eye-To-Eye Checker

In very hazardous environments, or for special applications, one single detector may just not do the job. The "Eye-to-Eye Checker" feature will only generate a valid alarm if 2 detectors, which are pointed at each other, both see an alarm signal within a very short time frame (see also Figure 2). As with the "Double-Checker" feature, this is a field selectable feature which does not require any additional wiring. Typical application examples: churches, roof protection, airports, indoor swimming pools, bicycle sheds.

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