ARITECH

Aritech EV 500 Plus Series   Passive Infrared Detectors

- **Specifically designed for the Professional Installer**
- **Combined mirror optics with volumetric and long range detection:**
  - **Volumetric coverage or 9 curtains x 16 metres**
  - **Long Range coverage 0f 1 curtain x 25 metres**
- **Next generation ASIC with "4D" processing providing improved detection and false alarm immunity**
- **Bi-curtain processing for harsh environments (volumetric applications only)**
- **Precision "Gliding Focus Curtain" mirrors**
- **True range control (Autofocus) for stable performance in all sizes of rooms (volumetric applications only)**
- **On-site coverage pattern selection using mirror masks supplied**
- **Alarm memory versions (with selectable polarity control)**
- **Simple End-of-Line (EOL) resistor programming**

Volumetric and Long Range Detection

The volumetric and long range curtain provide both maximum detection capability and installer flexibility. The EV 500 Plus performance and flexibility enables the installer to reduce inventory by stocking only one detector for the majority of applications.

The solid curtains of detection provided, including full undercrawl protection, ensure maximum security while the special characteristics of a "curtain" ensure not only better intruder detection, but also better stability from environment changes. A further advantage is better performance in warm environments where conventional PIR's suffer from range collapse.

The impressive performance and flexibility of the EV 500 Plus makes it a must for the professional installer of commercial installations.

True range control (Autofocus)

A range control switch in the EV 500 Plus allows it to be adapted to overcome the particular false alarm hazards faced in smaller rooms. PIRs can be oversensitive to relatively small temperature changes occurring on walls or objects in close proximity - a phenomenon known as "hot spots" or the "claustrophobic effect". This is the reason for the all too common occurrence of false alarms from detectors in smaller environments. A PIR with fixed range cannot be adapted for stable operation in such applications.

Innovations based on the unique properties of the curtain allow the EV 500 Plus to be programmed for use in smaller environments, dramatically cutting its susceptibility to "hot spots" and eliminating the claustrophobic effect without reducing sensitivity to real human movement.

"4D" signal processing

"4D" signal processing is the next generation of processing provided by the latest Aritech ASIC. This processing builds on the current strengths by adding "Moving Pole Filters" which automatically evaluate the environment and switch in additional filtering should the environment become noisy.

"4D" allows a PIR to intelligently analyse a signal pattern to distinguish between real human movement and false alarm hazards. The EV 500 Plus identifies a human signal pattern by the comparative size and shape of successive signals and the speed at which they occur. Signals which do not fit this pattern (e.g. temperature changes on the floor, shock, vibration, visible light etc.) are rejected.

"Bi-curtain" Programming Option

In tough environments, where false alarm hazards are suspected, the detector can be programmed to provide an extra level of signal processing for increased stability of operation.

Note: This is not an option for long range applications to ensure optimum detection on one curtain.

On-site selection of coverage pattern

Simple clip-on mirror masks allow selection from 3 volumetric and 2 single curtain coverage patterns. An additional mask allows elimination of coverage directly under the detector in the presence of false alarm hazards such as heaters, machinery, etc. Individual curtain masks allow the installer to customize the detection pattern to each application.

EOL Applications

The EV 500 Plus can simply and quickly be programmed for Dualloop EOL applications, saving considerably on engineering installation time.
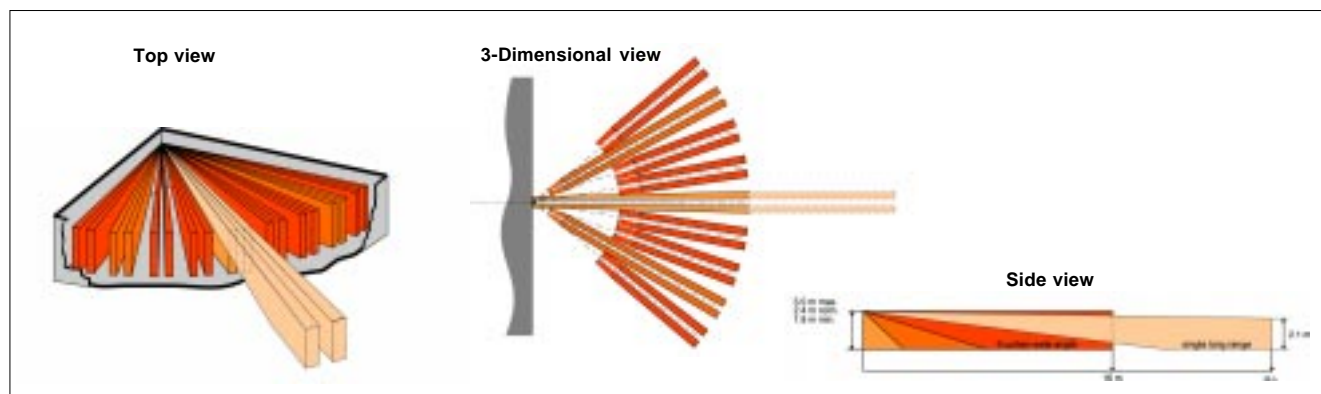
Accessory

A wall and ceiling mount bracket is now available providing flexibility to install and aim the detector where required.

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How to order

EV 525-P	PIR with "Autofocus" range control, 9 curtains of 16 m and 1 curtain of 25 m, NC relay
EV 526-P	As EV 525-P, changeover relay, no EOL selection
EV 535-P	As EV 525-P, plus alarm memory
EV 536-P	As EV 526-P, plus alarm memory
EV 565-P	PIR with "Autofocus" range control, 7 curtains of 25 m and 1 curtain of 40 m, NC relay
EV 566-P	As EV 565-P, changeover relay, no EOL selection
EV 575-P	As EV 565-P, plus alarm memory
EV 576-P	As EV 566-P, plus alarm memory
ST 400	Pry-off tamper kit
SB 01	Wall/ceiling mount bracket (± 45º horizontal, 0º or -5º vertical)

Pattern

Top view

3-Dimensional view

Side view

Technical data

Supply voltage	8 - 15 V dc; Max. ripple 2 V peak to peak at 12 V dc
Current consumption - Normal operation - In alarm, LED on	**EV 525-P/535-P/565-P/575-P** **EV 526-P/536-P/566-P/576-P** 4 mA 7 mA 8 mA max. 10 mA max.
Outputs	Alarm : NC (EV 525-P/535-P/565-P/575-P) or changeover (EV 526-P/536-P/566-P/576-P), contacts rated 100 mA at 28 V dc Tamper : NC contact, rated 100 mA at 28 V dc
Alarm time	2.5 seconds
Mounting height	1.8 to 3.0 metres
Target speed	min. 0.2 - max. 4.0 m/s
Coverage - Volumetric **and** - Long range	**EV 520/530** **EV 560/570** 9 curtains of 16 m. 7 curtains of 20 m. Pattern may be adapted using mirror masks supplied. Range can be reduced to 10 m. 1 curtain of 25 m. 1 curtain of 40 m.
Environmental limits	-18º to +55º C; Max. 93 % humidity
Field of view	89º (volumetric) - 3º (long range)
Housing meets (with sealed cable entry)	IP30- IK02
Dimensions	124 x 72 x 50 mm

CE The EV 500*Plus* complies with the essential requirements of the EMC directive 89/336/EMC.