

# VE735

Combined volumetric and long range  
PIR/AM sensor

## OVERVIEW

The VE735 uses Aritech's unique patented PYRO and V<sup>2</sup>E technology. With existing technology PIR detectors, IR signals are captured by a pyro-electric sensor placed in the detector's focal point. When a conventional pyro sees a thermal source within the surveillance area, it will generate a one-dimensional signal (value) and the presence of the source can be detected. The detection probability within the area is determined only by the resolution of the optics of the motion detector. However due to the unique construction of the VE735 patented pyro, a thermal source will generate a multi-dimensional signal (vector), allowing the pyro to determine not only the presence but also the direction of motion of a thermal source. This now means that the detection probability is equal to the product of the resolution of the optics and the multi-dimensional output of the pyro. This is a major advance in PIR technology capability.

The VE735 utilises unique DSP algorithm. The vector output of the VE735 pyro is unique for each different signal source. The DSP detection analysis allows the system to distinguish each vector's shape and characteristic. In other words, each vector's unique signature/pattern. In the surveillance area the VE735 will not only identify non-thermal signal sources, but, thanks to the DSP-driven detection algorithm, it will also filter out any false alarm signals from a stationary thermal source and react only to alarm signals from a moving thermal source (intruder). This is the first time that a PIR motion sensor with vector pattern recognition has been available on the security market

The VE735 has a unique feature in the Step & Glide focus mirror. With the "High Density Optic" (HDO) mirror, the VE735 series will provide you with more and wider curtains (and therefore untraceable detection gaps), without increasing the mirror size. The VE735 series has a comprehensive floor-pattern, made by a wide-angle mirror featuring 11 high-density curtains over a 90° field-of-view, enhanced with a 60m long-range curtain. The VE735 is the only motion detector on the market that can offer this unique combination in one product.



## FEATURES

- 20m volumetric + 60m long range
- Patented PYRO electric sensor
- DSP driven detection algorithm
- High density mirror optics
- Absolute volumetric sensor
- Left to right or right to left detection mode
- 3 alarm sensitivities
- Self test with trouble output relay and LED
- Event memory
- Plug-in electronics
- Easy to install with laser beam alignment tool
- Pry-off and cover tamper
- Submitted for all major European security approvals

# VE735

## Combined volumetric and long range sensor

### EN50131-2-2 GRADE 3 COMPLIANCY

The VE735AM is designed and approved to comply with EN50131-2-2 Grade 3, as well as with all highest European security grades for a PIR/AM motion sensor.

### CHIME & SETTINGS

Other VE735AM features, like chime mode and settings are identical to the VE735. The VE700 allows you to determine the direction of the intruder across the surveillance area. When chime mode is ON, the VE700 can trigger an alarm when an intruder walks from either left-to-right or right-to-left. The sensitivity settings (Low, Standard and High) ensure the best performance for most applications. The sensitivity level can be easily modified with a jumper.

### REMOTE SELF TEST

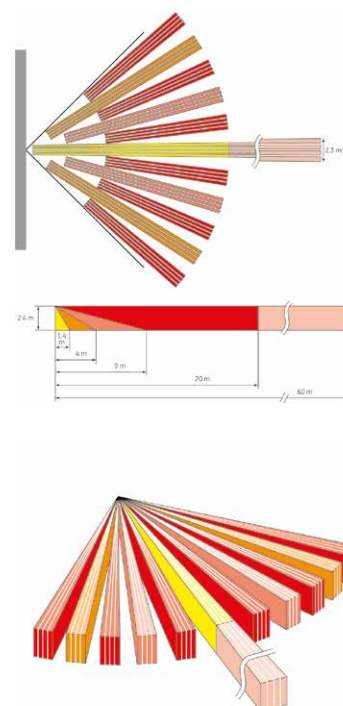
All active and electronics components of the VE735AM are monitored constantly in order to report the unlikely event of a defect.

### PLUG-IN & ACCESSORIES

The plug-in concept ensures easy installation without any worry about damaging the sensor so all setting can be done conveniently in your hand. The VE710 laser alignment tool is the recommended tool to use during installation for aligning the sensors in long corridor applications.

### SPECIFICATIONS

|                              |                           |
|------------------------------|---------------------------|
| Input power                  | 9 to 15 VDC (12 Vnominal) |
| Peak-to-peak ripple          | 2 V (at 12 VDC)           |
| Normal current consumption   | 11 mA                     |
| Alarm current consumption:   | 9 mA                      |
| Maximum current consumption: | 15 mA                     |
| Mounting height Min.         | 1.8m max 3.0 m            |
| Target speed range           | 20 cm/sec to 3 m/sec      |
| Alarm output                 | 80 mA at 30 VDC max.      |
| Tamper output                | 100 mA at 30 VDC max.     |
| Trouble output               | 80 mA at 30 VDC max.      |
| Alarm time                   | 3 sec                     |
| Detector start-up time       | 50 sec                    |
| Operating temperature        | -10 °C to +55 °C          |
| Relative humidity            | Max. 95%                  |
| Dimensions (H x W x D)       | 175 x 93 x 66 mm          |
| Weight                       | 275 g                     |
| Number of curtains           | 11 at 20 m + 1 at 60 m    |
| Viewing angle                | 86° at 20 m + 3° at 60 m  |
| IP/IK rating                 | IP30 / IK02               |



### ORDERING INFORMATION

|       |   |
|-------|---|
| VE735 | PIR Detector with 11 curtains & 1 curtain of 20 m & 60 m NC Relay                         |
| VE736 | PIR Detector with 11 curtains & 1 curtain of 20 m & 60 m CO Relay                         |
| VE710 | Laser beam, long-range alignment tool for VE700 family                                    |
| SB01  | Wall/ceiling mount bracket ( $\pm 45^\circ$ horizontal, $0^\circ$ or $-5^\circ$ vertical) |



Specifications subject to change without notice.  
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