VE1012AM

12 m volumetric Vector PIR/AM motion sensor

The power of mirror

GE Security motion sensors have the most advanced and sophisticated optics in the security industry. This unique optical mirror technology is a step and gliding focus, which creates a continuous curtain resulting in a sensor that never loses track of the object.

To increase detection coverage, the 1000 series sensors use the 3Brid orthogonal curtain design. This is a horizontal mirror structure that produces curtains with vertical orientation to detect infrared. This orthogonal invention is the key in adding curtains to the mirror without sacrificing signal strength, nor increasing the size of the sensor.

Patented Vector pyro

Infrared signals are captured by the pyro-electric sensor that is placed in the detectors' focal point. The conventional pyro generates a one-dimensional signal (value) to detect the presence of a source, and therefore its detection probability within the area is entirely determined by the resolution of the optics of the motion detector.

Due to the unique construction of the patented Vector 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.

V2E signal processing

The VE series of motion detectors incorporate a patented Vector Verified Enhanced (V2E) signal processing. Each type of signal source will generate a unique vector output captured by the Vector pyro. The digital signal processing will analyze each vector's shape and pattern, allowing it to distinguish different signal sources. It means that VE series motion sensors will not only identify non-thermal signal sources, but also filter out any potential nuisance signals such as stationary thermal sources, ventilators or strong light sources, and react only to alarm signals from intruders. PIR motion sensor with vector pattern recognition is unique to GE Security.

Standard Features

- Passive Infra Red motion sensor
- Automatic reporting of all masking attempts
- 3-Brid Gliding Focus Curtain Mirror
- Plug-in electronics
- Sealed optics
- "V2E" signal processing for false alarm immunity
- Cloak and umbrella immunity
- Full under crawl detection
- Selectable coverage pattern using mirror masks
- Auto focus with constant range sensitivity
- No adjustment required for different mounting heights
- Tolerates wall angle deviation
- EN50131-2-2 Grade 3 certified
- Several European approvals

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Specifications

Detection range	12 m (40 ft)
Undercrawl protection	Yes
Sensitivity	Normal / High
Coverage field of view	86° with 9 curtains
Coverage pattern selection	Curtain labels
Mounting height	1.8 to 3.0 m (5.9 to 9.8 ft)
Power supply	9 to 15 VDC
Current consumption (nom.)	10 mA
Alarm relay (voltage free)	NC when energised
Tamper relay (voltage free)	NC when cover closed
Remote control lines	Walk test
Alarm memory	No
PIR signal processing	V2E
Dimensions (W x H x D)	108 x 60 x 46 mm (6.88 x 3.66 x 2.60 in.)
Ambient conditions	-10 to +55°C (14 to 130°F); 95% relative humidity
Pry-off tamper	On board
EN50131-2-2	Grade 3

Ordering Information

Part No.	Description
VE1012AM	Vector PIR/AM, DSP, 12m, 9curtains
SB01	Wall/ceiling mount bracket (± 45° horizontal, 0° or -5° vertical)

Easy to install

PIRs of the 1000 series are the most rewarding sensors to install:
1. Tolerate wall angle deviation and different mounting heights.
2. Limited loss of coverage when objects are placed in the field of vision.
3. No range setting is required thanks to constant range sensitivity.
4. Plug-in electronics.

Optical anti-masking

The best technology to protect a motion sensor from being masked is active infrared. GE Security has a track record of developing products not only to meet the security grades for high-risk applications such as EN50131-2-2 Grade 3 and VdS class C, but also beyond that. In such, the VE anti-masking sensors not only have a superior protection against sabotage attempts covering attacks f interior i

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