Battery Operated (VX-402R)

The battery operated VX-402R allows for low cost simple outdoor installation, whilst providing exceptional detection capability.

- Battery Saving Circuit
- Temperature Compensation
- Form C Alarm Output and Tamper Output
- Low Current Draw

*Specifications and design are subject to change without prior notice. Note: This unit is designed to detect movement of an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequential results from an intrusion. This product conforms to the category: "Residential, Commercial and Light Industry" of EMC Directive 89/336 EEC.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>VX-402REC</th>
<th>VX-402R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage</td>
<td>12m (40ft) 2-zone</td>
<td>14 zones</td>
</tr>
<tr>
<td>Mounting Height</td>
<td>0.5<del>1.0 m (2</del>4 ft.)</td>
<td>1.5 m (5 ft.)</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>0.2% of max. (2.0~3.5 ft.)</td>
<td>0.5% of max. (5.5~10 ft.)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>9~18V DC</td>
<td>&gt;36V DC (max. or linearity)</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>Form A (Max. 0.6A)</td>
<td>Form C (Max. 0.6A)</td>
</tr>
<tr>
<td>Alarm Period</td>
<td>Approx. 30sec.</td>
<td>Approx. 30sec.</td>
</tr>
<tr>
<td>Lamp Switch</td>
<td>N/C (Open when cover removed)</td>
<td>Form C</td>
</tr>
<tr>
<td>Weight</td>
<td>500g (16.9oz.)</td>
<td>480g (16oz.)</td>
</tr>
</tbody>
</table>

Recommended external speaker

- Speaker with amplifier can not be used
- Only one external speaker can be connected

**DIMENSIONS**

- Width: 110mm (4.3in)
- Height: 100mm (3.9in)
- Depth: 21mm (0.8in)

**WEIGHTS AND MOUNTING**

- Wall, Pole, Conduit and Electrical Box
- Wall, Pole

**SPECIFICATIONS**

- Passive Infrared
- Operating Temperature: 20~52˚C (-4~122˚F)
- Operating Humidity: 95% max.
- IP: 54
- Weatherproof:
- Mounting:
- Weight: 500g (16.9oz.)
- 480g (16oz.)
- Recommended external speaker:
- Recommended external speaker:
- Wall Mount Kit, Screws, and Mounting Plate

**OPERATION**

- Led Indicator: LED is blinking during warm-up period
- Recording Condition: Enables during normal operation
- Alarm Condition: Enables during wake test

**DETECTION ZONES**

- 90˚ wide, 7 fingers
- N.C. Opens when cover removed
- Form C-Solid State Switch: 10V DC 0.01A max.
- Form C-Solid State Switch: 10V DC 0.01A max.

**POWER SUPPLY**

- 20~52V DC 0.3A max.
- 20~52V DC 0.3A max.

**ACCESSORY**

- Approx. 20sec. 2 or 4
- Approx. 2min
- Approx. 30sec. 2 or 4
- Approx. 2min

**MOUNTING HEIGHT**

- 10m (30ft)
- 12m (40ft)

**SENSITIVITY**

- Normal 12mA max. 200mA (N.O.)
- Normal 25mA max. 28mA (N.C.)
- Normal 25mA max. 180mA (N.C.)

**ADJUSTABLE ZONES**

- 14 zones
- 12m (40ft.)
- 90˚ wide

**RECORDER**

- Recording condition
- Enable during walk test
- Alarm condition
- Operation

**WIRING LENGTH**

- 80 (3.15) 108 (4.25)
- 80 (3.15) 82 (3.23)

**CURRENT CONSUMPTION**

- 75dB
- 80dB

**NOTES**

- Transmitter is not included. Use the commercially available transmitter.

**PRODUCTS**

- VX-402REC
- VX-402
- VX-402R

**BATTERY OPERATED (VX-402R)**

- Reliable Short-Range Detection for External Areas
- Ideal for Event Driven CCTV Applications
- Two Detection Zones for Superior Stability
- Any Message Recordable for Each Application in Any Language (VX-402REC)
- Simple wire free installation, with battery operation (VX-402R)
The VX-402 Series
—New Solutions for Outdoor Protection—

Voice Recording / Warning Functions

The VX-402REC provides great flexibility in detector-activated voice applications. As well as the ability to record any message in any language, with its superior playback settings, it allows the right message to be played in every situation.

Easy Voice Recording
By using either the built-in microphone or external recording equipment such as a PC, the VX-402REC allows two messages of up to eight seconds to in length to be recorded.

Voice Warning Function
Once recorded, the two messages can be delivered in one of four different playback sequences.

Sequential Playback
When the VX-402REC first detects someone in the area, it delivers a caution message. If someone is detected in the same area a second time within 30 seconds of the first message being given, it is repeated. On a third detection within 30 seconds, the caution message automatically changes into a warning message.

Directional Detection Playback
When the VX-402REC is used with another detection device such as an outdoor PIR, active photobeam or a magnetic contact, different messages can be set to make double sure intruders are deterred. The caution message is generated at the first detection, and the warning message generated at the second detection.

Day/Night Message Playback
Changes the message automatically in daytime and nighttime, for example giving a welcome message in daytime and an alert message at night.

Arm/Disarm Playback
Provides a caution alert when the Arm Mode is on, for example when deterrence is intended, and gives a different message when disarmed.

External Speaker Terminal
The VX-402REC has a voice output terminal allowing an external speaker to be connected. The most common applications for this are either when a high-volume announcement is needed or when the best position for the speaker is away from the detector unit.

A Variety of Applications
- Intruder Prevention: An alarm is activated when an intruder enters the property or prohibited area.
- Warning Alert: A safety warning is activated. For example, when children go near a dangerous area such as a swimming pool.
- Shop Entrance: A welcome message is given when customers enter a premises.

Improved False Alarm Protection for Stable Reliability

The VX-402 Series utilises Multiple Detection Pattern Technology — two double-layered detection patterns (upper and lower) both have to be activated to generate an alarm condition. This reduces false alarms, particularly those caused by temperature changes, light reflection and small animals.

Flexible Detection Range Function
By limiting the detection range, false alarms due to unwanted movement, e.g., cars, people or animals outside the protected area can be reduced.

Size Judging Function
The size judgment function virtually eliminates false alarms due to small animals.

Advanced Temperature Compensation
At higher ambient temperatures, the difference between the background temperature and that of a human body is reduced. In such cases an ordinary PIR might fail to accurately detect the human body. The VX-402 uses advanced temperature compensation to automatically increase the detector’s sensitivity under high temperature conditions, especially where the background temperature ranges from 35-37˚C, close to that of the human body.

Double Conductive Shielding
Patented Double Conductive Shielding Technology utilises a special conductive filter to cover the element window, providing a caution alert when the Arm Mode is on, for example when deterrence is intended, and gives a different message when disarmed.

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Multiple Detectors for Improved Functionality
For advanced functionality and reliability without the need for a control panel, the VX-402 can be connected to another detector, e.g. PIR, photobeam or magnetic contact. Various configurations are possible.

Detection Area Extension Function
Wiring two VX-402 Series sensors together and selecting the ‘AND’ Mode enables the detection pattern to be effectively doubled.

Directional Detection Function
By selecting the ‘AND’ Mode and programming which sensor should be activated first (using DIP Switch Programming), the VX-402 Series can sense direction and will only be activated if motion is in a specified direction.

DESCRIPTION AND OPERATION (VX-402REC)

- LED Indicator
- Double Conductive Shielding
- Voice Recording / Warning Functions
- Easy Voice Recording
- Voice Warning Function
- Sequential Playback
- Directional Detection Playback
- Day/Night Message Playback
- Arm/Disarm Playback
- External Speaker Terminal
- A Variety of Applications
  - Intruder Prevention
  - Warning Alert
  - Shop Entrance
- Improved False Alarm Protection for Stable Reliability
  - Flexible Detection Range Function
  - Size Judging Function
  - Advanced Temperature Compensation
  - Double Conductive Shielding
- Multiple Detectors for Improved Functionality
- Detection Area Extension Function
- Directional Detection Function

The VX-402 Series
—New Solutions for Outdoor Protection—
The battery operated VX-402R allows for low cost simple outdoor installation, whilst providing exceptional detection capability.

**Specifications**

- **Detection Method**: Passive Infrared
- **Coverage**: 12m (40 ft) 17˚ wide
- **Mounting Height**: 1.4m to 2.1m (4.6 to 6.9 ft)
- **Sensitivity**: 2.0° (0.36° FT) at 1 W/m²
- **Power Supply**: 9 V (6F22) alkaline
- **Current Consumption**:
  - Normal: Max (170 mV), Nom (150 mV) - 10mA (Batteries)
  - Alarm: 10mA (Batteries)
- **Alarm Period**:
  - Recording condition: Approx. 30sec.
  - Alarm condition: Approx. 20sec.
  - Normal 10mA max. 35mA (N.O.)
  - Walktest, LED on: Max 3mA (Walktest, LED on)
- **Weatherproof**: IP65
- **Operating Temperature**:
  - Normal: 0 to 50˚C (32 to 122˚F)
  - Walktest: 0 to 70˚C (32 to 158˚F)
- **RF Interference**: No alarm
- **Mounting**: Wall, Pole, Conduit and Electrical Box
- **Weight**: 550g (19.4oz.)
- **Battery Data**:
  - Standby: Approx. 20 sec. 2 or 4
  - Operating: Approx. 30 sec. 2 or 4
- **Standard Accessories**:
  - Pole Mount Kit, Screw Kit, Area Masking Plate

**Dimensions**

- **Covered Distance**: 12m (40ft) 90˚ wide
- **Detection Zones**: ADJUSTABLE ZONES
- **Power Supply**: 9V battery
- **Current Consumption**: over 30mA max.
- **Sensitivity**: over 80dB/m
- **Detection Angle**: 12m (40ft)
- **Wiring Length**: 10m
- **Speaker with amplifier can not be used**

**Adaptability**

- **Reliable Short-Range Detection for External Areas**
- **Ideal for Event Driven CCTV Applications**
- **Two Detection Zones for Superior Stability**
- **Any Message Recordable for Each Application in Any Language (VX-402REC)**
- **Simple wire free installation, with battery operation (VX-402R)**