The DS307 PIR Intrusion Detector uses Motion Analyzer II signal processing to reduce false alarms. The detector’s internally pointable mirrors, three coverage patterns, and four wall mounting options provide installation flexibility.

### Functions

**Motion Analyzer II Processing**
Motion Analyzer II uses multiple thresholds and timing windows to analyze timing, amplitude, duration, and polarity of signals to make an alarm decision. It tolerates extreme levels of heat and light disturbances caused by heaters and air conditioners, hot and cold drafts, sunlight, lightning, and moving headlights.

**PIR Supervision**
PIR operation is checked electronically approximately every 12 hours. If the circuit fails, the LED pulses four times and the trouble output activates.

**Motion Monitor Supervision**
Confirms the detector has a clear view of the detection area. A trouble condition is indicated if the detector has not alarmed at least once during a selected time period.

**LED Indicator**
LED flashes to indicate trouble condition. Internal Noise Voltage Test Pins provide precise pattern location and background disturbance evaluation using a standard analog meter.

**Three Sensitivity Settings**
- **Standard Sensitivity**: Recommended setting for maximum false alarm immunity. Tolerates environmental extremes on this setting. Not recommended for long range or barrier coverage patterns.
- **Intermediate Sensitivity**: Recommended setting for any location where an intruder is expected to cover only a small portion of the protected area. Tolerates normal environments on this setting.
- **High Sensitivity**: Fast response to intruder signals. For use in quiet environments where fluctuations in heat or light are not anticipated.
Certifications and approvals

<table>
<thead>
<tr>
<th>Region</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>CE</td>
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<tr>
<td>USA</td>
<td>UL</td>
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<tr>
<td></td>
<td>ANSI: Intrusion Detection Units (UL639)</td>
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</tbody>
</table>

Installation/configuration notes

Mounting Considerations
Select a location that is most likely to intercept an intruder moving across the coverage pattern. Ensure the mounting surface is solid and vibration free. Avoid hot or cold drafts, direct sunlight, heat sources, windows, air conditioning outlets, and small animals. The DS307 does not detect through glass.

Notice
Misaligning the detector in an optional mounting bracket can reduce range.

Technical specifications

Electrical
- Current Draw: 18 mA at 12 VDC
- Voltage (Input): 6 VDC to 15 VDC

Environmental Considerations
- Temperature (Operating): -40°C to +49°C (-40°F to +120°F)
  For UL Listed Applications, 0°C to +49°C (+32°F to +120°F)
- Radio Frequency Interference (RFI) Immunity: No alarm or setup on critical frequencies in the range from 26 MHz to 950 MHz at 50 V/m.

Mechanical
- Dimensions: 14.6 cm x 9.5 cm x 6.4 cm (5.75 in. x 3.75 in. x 2.5 in.)
- Material: High impact ABS plastic enclosure
Mounting

<table>
<thead>
<tr>
<th>Height (recommended):</th>
<th>2 m to 2.6 m (6.5 ft to 8.5 ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>Surface or corner mount.</td>
</tr>
<tr>
<td>Internal Pointability:</td>
<td>Coverage is adjustable ±10° horizontally, +1° to -18° vertically.</td>
</tr>
</tbody>
</table>

Outputs

<table>
<thead>
<tr>
<th>Alarm:</th>
<th>Form C contacts rated at 3.0 W, 125 mA at 28 VDC for resistive loads.</th>
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<tbody>
<tr>
<td>Tamper:</td>
<td>Normally-closed. Contacts rated at 28 VDC, 125 mA maximum.</td>
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<tr>
<td>Trouble:</td>
<td>Solid state output, shorts to negative when activated. Maximum current load is 25 mA.</td>
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</table>

Ordering information

**DS307 PIR Intrusion Detector**
Provides Motion Analyzer II processing, PIR supervision, motion Monitor supervision, an LED indicator, and three sensitivity settings.
Order number **DS307**

**Accessories**

**B328 Gimbal-mount Bracket**
Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.
Order number **B328**

**Swiveling B335-3 low-profile mount**
Swiveling, low-profile, plastic mount for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°. Available in triple packs.
Order number **B335-3**

**B338 Universal Ceiling-mount Bracket**
Swiveling plastic mount for ceiling mounting. The vertical swivel range is +7° to -16°, while the horizontal swivel range is ±45°.
Order number **B338**

**OMB77-3 Barrier Mirror**
Provides barrier coverage with a 25 m x 5 m (80 ft x 16 ft) pattern. Shipped in packages of three.
Order number **OMB77-3**

**OMLR77-3 Long-range Mirror**
Provides long-range coverage with a 40 m x 3 m (120 ft x 10 ft) pattern. Shipped in packages of three.
Order number **OMLR77-3**

**TC6000 Test Cord**
Test cord for connecting a compatible detector’s test pins to a voltmeter. It is 4.6 m (15 ft) long.
Order number **TC6000**