Commercial Series TriTech Motion Detectors

The Commercial Series TriTech AM motion detectors with anti-mask, and TriTech motion detectors, are designed to ensure reliable catch performance and false alarm immunity in commercial applications. Commercial Series motion detectors use a combination of passive infrared (PIR) and microwave Doppler radar detection technologies with advanced signal processing. Features such as integrated, selectable end-of-line resistors, a self-locking enclosure with integrated bubble level, and removable lift gate style terminal strip make installation of Commercial Series detectors easier and more reliable.

**Functions**

**First Step Processing**
First Step Processing (FSP) almost instantly responds to intruders without producing false alarms from other sources. FSP adjusts the detector's sensitivity based on signal amplitude, polarity, slope, and timing. The installer can select the sensitivity level, thus improving reliability. The sensitivity level for the Commercial Series motion detectors with anti-mask is approximately 20% higher than in the models without anti-mask, making them more suitable for higher security applications, such as banks, jewelry stores, pharmacies, and other applications.

**Active infrared anti-mask technology**
The detector utilizes two different techniques for detecting attempts to obscure the field of view of the detector; through-the-lens and bounce back.

**Microwave Noise Adaptive Processing**
Microwave Noise Adaptive Processing adjusts to background disturbances, reducing false alarms from repetitive sources without sacrificing intruder detection.

**Integrated jumper selectable EOL resistors**
The integrated EOL resistors simplify the wiring process and reduce installation time.

**Flexible mounting heights**
No adjustments required when mounted from 2.3 to 2.75m (7.5 to 9.0 ft). Reduce installation time and false alarms while improving catch performance.

**Self-locking enclosure with removable terminal strip**
The sliding, self-locking enclosure has an integrated biaxial bubble level and custom gap-free, lift-gate style terminal strip to make installation easier and more reliable.

**Dynamic temperature compensation**
The detector intelligently adjusts its sensitivity so that it can identify human intruders at virtually any temperature.

**Small animal immunity**
The small animal immunity feature reduces false alarms from small animals up to 4.5 kg (10 lbs) that may move on the floor within the coverage area of the detector.
Intrusion Alarm Systems - Commercial Series TriTech Motion Detectors

Protected, sealed optics and electronics
The optics and electronics are assembled into the front enclosure and sealed with a protective cover to prevent damage during installation. The sealed optical chamber also prevents drafts and insects from affecting the detector.

Cloak and Camouflage Detection Technology
Cloak and Camouflage Detection Technology (C^2DT) maximizes catch performance against intruders attempting to cover their infrared signal.

Test features
Externally visible alarm LED can be disabled after installation.

Switch configuration
The following functions are selectable using switches:
- Alarm LED On and Off
- C^2DT HI and LO

RFI and Impact Immunity
E models feature improved immunity to false alarms from external sources including radio frequency interference, “popcorn noise”, as well as physical impact. Through use of a high performance pyro (infrared) sensor with integrated signal filtering, the highest quality electrical components and design that produces the best-in-class signal to noise ratio, and sophisticated signal processing, these detectors are more robust than ever against false alarms.

Improved Resistance to Sabotage
E model detectors are now tested and approved to the EN50131-5-3 requirements for immunity to interference from external radio frequency sources. Detection performance and false alarm immunity are ensured when in the presence of such sources that could degrade the performance of detectors that are not approved to this standard.

Regulatory information
The following table lists regulatory approvals by region.

<table>
<thead>
<tr>
<th>Region</th>
<th>Regulatory compliance/quality marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>RCM [ISC-CDL1-W15G, ISC-CDL1-WA15G, ISC-CDL1-WA12G]</td>
</tr>
<tr>
<td></td>
<td>EN50131 EN50131-2-4 Grade 2 Environmental Class II (G models) I (H models)</td>
</tr>
<tr>
<td>Belgium</td>
<td>INCERT ISC-CDL1-W15GE + ISC-CDL1-WA15GE</td>
</tr>
<tr>
<td>Sweden</td>
<td>SBSC 20-167 Intyg_20-167_ISC-CDL1-W15GE_EN</td>
</tr>
</tbody>
</table>

Installation/configuration notes
Mounting
The recommended mounting height is 2.3 m to 2.75 m (7.5 ft to 9 ft) with no adjustments required.
Mount the motion detector level, both horizontally and vertically. The detector can be mounted:
- In a corner by utilizing the beveled edges of the detector base.
- On a flat wall by securing the detector base directly to the wall.
- On a flat wall using the optional B328 Gimbal-mount Bracket, or B335 Swivel-mount Bracket.
- On the ceiling with the optional B338 Ceiling-mount Bracket.
**Intrusion Alarm Systems - Commercial Series TriTech Motion Detectors**

### Coverage patterns

**Fig. 1:** For ISC-CDL1-WA12G model only

**Fig. 2:** For other models

### Technical specifications

<table>
<thead>
<tr>
<th>Properties</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material</strong></td>
<td>High-impact ABS plastic</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>White</td>
</tr>
<tr>
<td><strong>Terminal wire size</strong></td>
<td>Ø 0.40 mm to 1.29 mm (26 AWG to 16 AWG)</td>
</tr>
<tr>
<td></td>
<td>(UL: 22 AWG to 16 AWG)</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Relative humidity</strong></td>
<td>93% non-condensing</td>
</tr>
<tr>
<td><strong>Temperature (operating)</strong></td>
<td>EN50130-5 Environmental Class II: (-20°C to +55°C (+4°F to +130°F))</td>
</tr>
<tr>
<td></td>
<td>UL: 0°C to +49°C (+32°F to +120°F)</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td>Standby = 15 mA (UL: Maximum current = 35 mA)</td>
</tr>
<tr>
<td><strong>Voltage (operating)</strong></td>
<td>9 VDC to 15 VDC</td>
</tr>
<tr>
<td><strong>Radio Frequency Interference (RFI)</strong></td>
<td>No alarm or setup on critical frequencies in the range from 150 kHz to 2.7 GHz at field strengths less than 10 V/m.</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Alarm relay, trouble relay</strong></td>
<td>Solid state, supervised, normally-closed (NC) contacts rated for &lt;100 mA, 25 V, 2.5 W</td>
</tr>
<tr>
<td><strong>Tamper</strong></td>
<td>Supervised, normally-closed (NC) contacts rated for &lt;100 mA, 25 V, 2.5 W</td>
</tr>
<tr>
<td><strong>End-of-line resistors</strong></td>
<td>Alarm: 1.0 k, 2.2 k</td>
</tr>
<tr>
<td></td>
<td>Tamper: 1.0 k, 2.2 k, 33 k</td>
</tr>
<tr>
<td></td>
<td>Trouble: 2.2 k, 12 k</td>
</tr>
</tbody>
</table>

**Ordering information**

**ISC-CDL1-W15G Motion detector, 50ft (15m)**

Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.525 GHz.

Order number **ISC-CDL1-W15G | F.01U.297.384 F.01U.364.863**
ISC-CDL1-W15G-CHI Motion detector, 50ft (15m)
Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.525 GHz. For use in China.
Order number ISC-CDL1-W15G-CHI | F.01U.297.386 F.01U.380.483

ISC-CDL1-B15-CN Motion detector, 50ft (15m)
Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.525 GHz. For use in China.
Order number ISC-CDL1-B15-CN | F.01U.388.771 F.01U.341.392

ISC-CDL1-W15GE Motion detector, 50ft (15m)
Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.52 to 10.55 GHz. For use in Europe, certain restrictions apply.
Order number ISC-CDL1-W15GE | F.01U.366.600 F.01U.392.912

ISC-CDL1-W15HE Motion detector, 15m, FR
Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.57 to 10.60 GHz. For use in France.
Order number ISC-CDL1-W15HE | F.01U.366.599 F.01U.392.911

Accessories
B328 Mounting bracket, gimbal
Mounts on a single-gang box and allows rotation of a detector. Wires are hidden inside.
Order number B328 | 4.998.800.277

B335-3 Mounting bracket, swivel, low profile
Swiveling, low-profile, universal bracket for wall mounting. The vertical swivel range is +10° to -20°, while the horizontal swivel range is ±25°.
Order number B335-3 | 4.998.800.014

B338 Mounting bracket, ceiling, universal
Swivel universal bracket for ceiling mounting. The vertical swivel range is +7° to -16°, while the horizontal swivel range is ±45°.
Order number B338 | 4.998.800.282