

Commercial Series TriTech Motion Detectors

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- ▶ TriTech. Passive infrared and microwave Doppler radar detection with First Step Processing.
- ▶ TriTech AM models include active infrared anti-mask.
- ▶ Flexible Mounting Height and Integrated EOL resistors.
- ▶ Cloak and Camouflage Detection Technology (C²DT).
- ▶ Microwave Noise Adaptive Processing.

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.

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 (C2DT) 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
- C2DT HI and LO

Wall-to-wall coverage

A user-selectable integrated lookdown zone and coverage range of 15 m x 15 m (50 ft x 50 ft) provide wall-to-wall coverage.

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.

Certifications and approvals

The following table lists regulatory approvals by region.

Region	Regulatory compliance/quality marks	
Australia	RCM	[ISC-CDL1-W15G, ISC-CDL1-WA15G, ISC-CDL1-WA12G]
Europe	CE	2014/53/EU (RED) 2011/65/EU (RoHS) (EU 2015/863 amending Annex II to Directive 2011/65/EU [Notified body 0700]
	EN50131	EN50131-2-4 Grade 2 Environmental Class II (G models) I (H models)
USA	UL	[ISC-CDL1-WA12G, ISC-CDL1-WA15G, ISC-CDL1-W15G]
	UL	UL 639 - Standard for Intrusion Detection Units
	FCC	Part 15 Class B
Canada	ULC	[ISC-CDL1-WA12G, ISC-CDL1-WA15G, ISC-CDL1-W15G]
	ULC	CAN/ULC S306-03 - Canadian Standard for Intrusion Detection Units
	IC	Industry Canada
France	AFNOR	EN50131-2-4 Grade 2, NF324-H58 + RTC 50131-2-4 ISC-CDL1-W15HE - Certificate # 2800200015A1 ISC-CDL1-W15HE - Certificate # 2820200013A1
China	CCC	2015031901000145 [ISC-CDL1-WA12G-CHI, ISC-CDL1-W15G-CHI, ISC-CDL1-WA15G-CHI]
Brazil	ANATEL	[ISC-CDL1-W15G, ISC-CDL1-WA15G]

Installation/configuration notes

Mounting

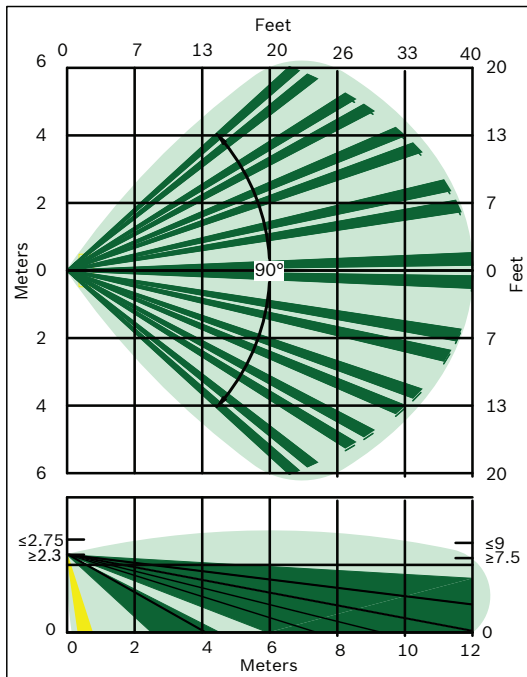
The recommended mounting height is 2.3 m to 2.75 m (7.5 ft to 9 ft) with no adjustments required.

Mount the motion detector level, both horizontally and vertically.

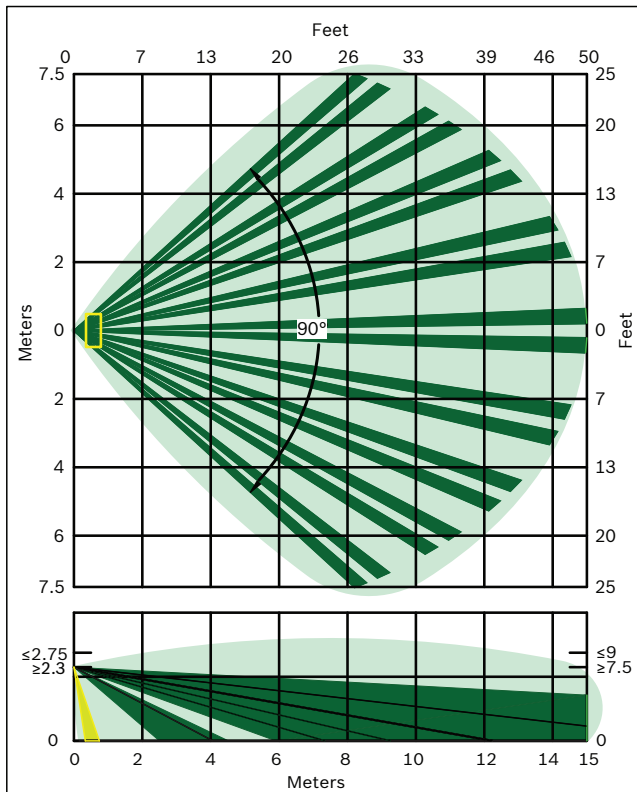
The detector can be mounted:

- 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.

Coverage patterns



For ISC-CDL1-WA12G model only



For other models

Technical specifications

Properties

Dimensions	120 mm x 70 mm x 55 mm (4.7 in. x 2.75 in. x 2.2 in.)
Material	High-impact ABS plastic
Color	White
Terminal wire size	Ø 0.40 mm to 1.29 mm (26 AWG to 16 AWG) (UL: 22 AWG to 16 AWG)

Environmental

Relative humidity	93% non-condensing
Temperature (operating)	G models: -20° C to +55° C (+4° F to +130° F) H models: +5° C to +40° C (+41° F to +104° F) UL: 0° C to +49° C (+32° F to +120° F)

Electrical

Current	Standby = 15 mA (UL: Maximum current = 35 mA)
Voltage (operating)	9 VDC to 15 VDC
Radio Frequency Interference (RFI) Immunity	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.

Outputs

Alarm relay, trouble relay	Solid state, supervised, normally-closed (NC) contacts rated for <100 mA, 25 V, 2.5W
Tamper	Supervised, normally-closed (NC) contacts rated for <100 mA, 25 V, 2.5W
End-of-line resistors	Alarm: 1.0 k, 2.2 k Tamper: 1.0 k, 2.2 k, 33 k Trouble: 2.2 k, 12 k

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**

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**

ISC-CDL1-B15-CN Commercial Series TriTech, 10.525GHz CHI

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**

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**

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**

Accessories

B328 Mounting bracket, gimbal

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

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**

B338 Mounting bracket, ceiling, universal

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

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