Commercial Series Gen2 TriTech Motion Detectors

- TriTech. Passive infrared and microwave Doppler radar detection with First Step Processing.
- C²DT: Cloak and Camouflage Detection Technology maximizes catch performance against intruders attempting to cover their infrared signal.
- Flexible Mounting Height and Integrated EOL resistors.
- Intelligent tamper and impact detection using a MEMS accelerometer.
- Active white light suppression.

The Commercial Series 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 faster by up to 45%, 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.

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

Integrated Dip switch 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 (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

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
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
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.

Remote Walk Test LED
Users can configure this at the device, enter a command through a keypad, a control center, or programming software to remotely enable or disable the walk test LED.

Active white light suppression
An internal light sensor measures the intensity of the light directed at the face of the detector. Sensor data fusion technology uses this information to eliminate false alarms from bright light sources.

Intelligent detection
With the incorporation of Bosch’s Sensortec Microelectromechanical Sensor (MEMS) 3-axis accelerometer sensing technology, the accelerometer identifies when the detector is installed in an upside-down orientation. An LED sequence occurs signaling that the detector is mounted upside down.

Regulatory information

Region	Agency	Certification
USA and CA	UL and ULC	UL639, C-UL S306-03 LISTING Intrusion Detection Unit, Type: S (CDL2-15G)
	FCC	Part 15 Subpart B & C, Class B, FCCID: T3X-CDL2 (CDL2-15G)
	ISED	RSS210 1249A-CDL2 (CDL2-15G)
EU	CE	CE - 2014/53/EU (RED), 2011/65/EU and 2015/863 (RoHS) (CDL2-15G, CDL2-15H)
	EN	EN 50131-2-4 Grade 2 (CDL2-15G, CDL2-15H) EN 50130-5, Environmental Class II EN60529, EN62262: IP30/ IK04
France	AFNOR	CDL2-15H: 2820200014B0 Grade 2
Germany	VdS	EN-ST-000291
INCERT	INCERT	CDL2-15G: Larmklass 2
UKCA	UKCA	CDL2-15H

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.

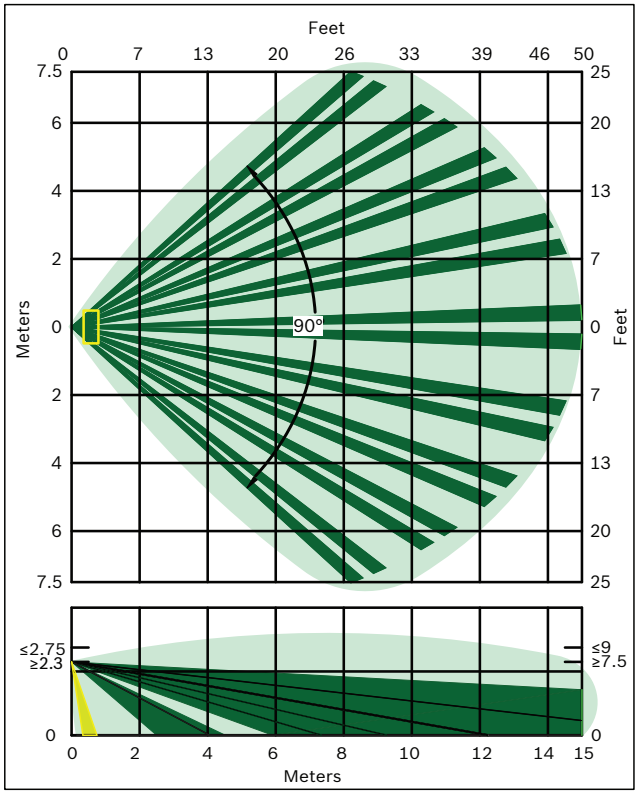

Fig. 1: For other models

Technical specifications

Mechanical

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)	-20° C - +55° C (+4° F - +131° F) EN 50130-5 Environmental Class II: -20° C - +55° C (+4° F - +131° F) UL/C-UL: 0°C - +49°C (+32°F - +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 6 GHz at field strengths less than 10 V/m.

Outputs

Alarm relay, trouble relay	Solid state, supervised, normally-closed (NC) contacts rated for <35 mA, 25 V, 2.5W
Tamper	Supervised, normally-closed (NC) contacts rated for <35 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

Ordering information

CDL2-15G 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 **CDL2-15G | F.01U.383.078**

CDL2-15H Motion detector, 50ft (15m), 10.588 G
Provides PIR and microwave Doppler radar detection, 15 m x 15 m (50 ft x 50 ft) coverage pattern. Frequency: 10.588 GHz. For use in France and the United Kingdom.
Order number **CDL2-15H | F.01U.383.079**

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
Swiveling 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**

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