

## DS825/DS840 Surface or Corner Mount TriTech PIR/Microwave Detectors with Pet Immunity



The DS825 and DS840 Detectors provide immunity to false alarms caused by pets. Passive infrared and microwave processing provides excellent catch performance with freedom from false alarms.

### ■ Features

- Artificial Intelligence
- First Step Processing
- Pointable Mirrored Optics
- 4 Mounting Options
- Supervised microwave and PIR
- Pet/Animal immunity
- Temperature compensation

### ■ Basic Functions

#### Signal processing

Uses passive infrared and microwave technologies to provide an alarm condition when both fields of protection are simultaneously activated. Alarm signals must meet the signaling requirements of both technologies to activate an alarm. Adjustable PIR and microwave sensitivity.

#### First Step Processing (FSP)

First Step Processing (FSP) allows virtually instant response to human targets without sacrificing false alarm immunity to other sources. By adjusting its sensitivity based upon signal amplitude, polarity, slope and timing, FSP eliminates the need for the installer to select the sensitivity level for the application. Each sensor is processed individually and both must agree there is an alarm before the alarm relay is activated.

#### Microwave signal processing

Pattern recognition circuitry identifies and ignores repetitive false alarm sources. Adaptive processing adjusts to background disturbances. This helps to reduce false alarms while maintaining catch performance.

#### Pet/animal immunity

The detector is able to distinguish between signals caused by humans and signals caused by pets (one dog up to 100 lbs. / 27 kg., up to 10 cats, and other small animals such as birds and rodents). This provides immunity to false alarms while maintaining proper catch performance of human targets.

#### Temperature compensation

The sensor provides compensation at critical temperatures.

#### Supervised Microwave and PIR

Patented fully supervised microwave and PIR circuitry provides single technology coverage in the event the microwave subsystem fails.

#### Test features

Externally visible, tricolor alarm LED indicates each technology independently and flashes to indicate a trouble condition.

### ■ Certifications and Approvals

UL Standard	UL639, Intrusion Detection Units
Approvals	CE
	FCC Compliant

### ■ Patents and Trademarks

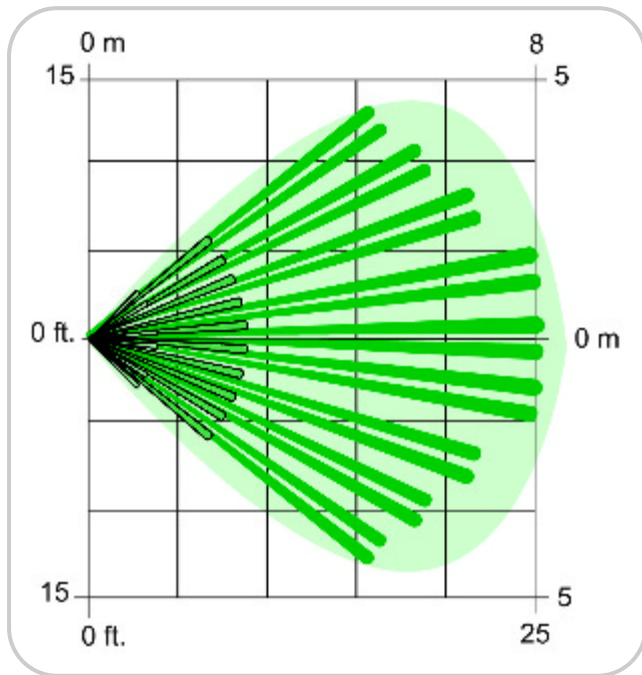
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## ■ Planning

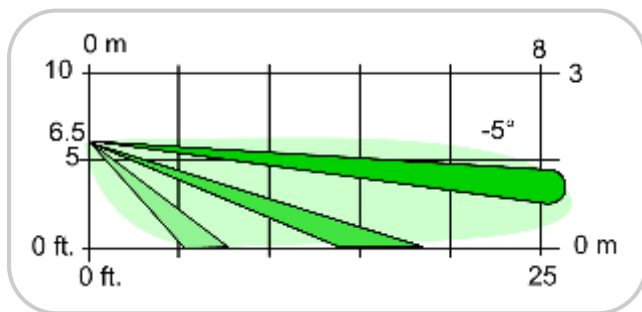
### Coverage

**DS825 Broad: 25 ft. x 25 ft. (7.5 m x 7.5 m)**

*Top View*

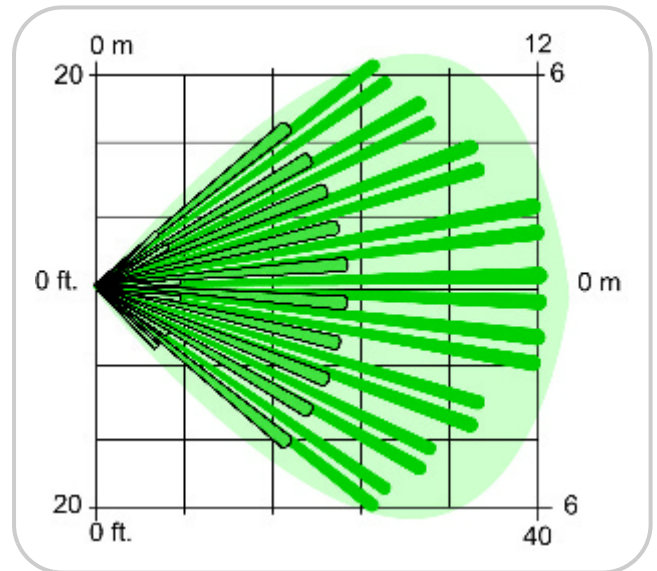


*Side View*

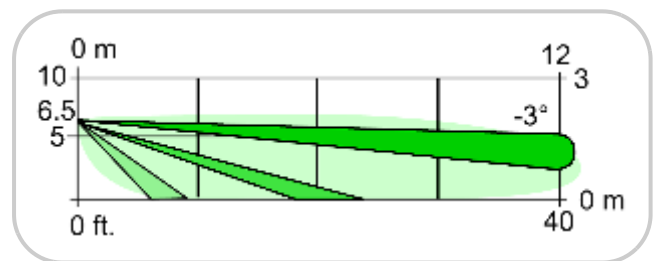


**DS840 Broad: 40 ft. x 40 ft. (13 m x 13 m)**

*Top View*



*Side View*



### Planning

Recommended mounting height is 6.5 ft. (2 m).

## ■ Technical Specifications

<b>Alarm Output</b>	Normally Closed reed relay rated at 3.0 watts, 125 mA @ 28 VDC for resistive loads and protected by a 4.7 ohm resistor in the common "C" leg.
<b>Enclosure Design</b>	
Material:	High impact ABS plastic enclosure
Dimensions (HxWxD):	4.25 in. x 2.75 in. x 1.8 in. (10.8 cm x 7 cm x 4.6 cm)
<b>Environmental Considerations</b>	
Operating Temperature:	-40°F to +120°F (-40°C to +49°C) <i>For UL Listed installations,</i> <i>+32°F to +120°F</i> <i>(0°C to +49°C)</i>
<b>Mounting</b>	
Location:	Surface or corner mount
<b>Power Requirements</b>	6 to 15 VDC, 16 mA @ 12 VDC
<b>Radio Frequency Interference (RFI) immunity</b>	No alarm or setup on critical frequencies in the range from 26 to 950 Megahertz at 50 v/m.

## ■ Hardware Options

### B335 Low Profile Mount Bracket



For DS303E, DS306E, DS308EA, DS774i, DS774Ti, DS775, DS776Z, DS777Z, DS778, DS820, DS820i, DS825, DS835, DS840, DS860, DS940, DS950, and DS970.  
Is shipped in packages of 3.

### B338 Ceiling Mount Bracket



For DS308EA, DS775, DS777Z, DS778, DS820i, DS825, DS835i, DS840, DS935Z, CAM940, and OD850.  
Is shipped in packages of 3.

### DS825 25 ft. (7.5 m) Detector with 10.525 GHz Microwave Frequency

Prod. ID	DS825
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The surface or corner mount DS825 TriTech PIR/Microwave Detector provides a coverage pattern of 25 ft. x 25 ft. (7.5 m x 7.5 m) and a microwave frequency of 10.525 GHz.

### DS825T 25 ft. (7.5 m) Detector with 10.525 GHz Microwave Frequency and Tamper Switch

Prod. ID	DS825T
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The surface or corner mount DS825T TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz, a coverage pattern of 25 ft. x 25 ft. (7.5 m x 7.5 m), and a normally closed tamper switch with contacts rated at 28 VDC, 0.125 A maximum.

### DS840 40 ft. (13 m) Detector with 10.525 GHz Microwave Frequency

Prod. ID	DS840
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The surface or corner mount DS840 TriTech PIR/Microwave Detector provides a coverage pattern of 40 ft. x 40 ft. (13 m x 13 m) and a microwave frequency of 10.525 GHz.

### DS840T 40 ft. (13 m) Detector with 10.525 GHz Microwave Frequency and Tamper Switch

Prod. ID	DS840T
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The surface or corner mount DS840T TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz, a coverage pattern of 40 ft. x 40 ft. (13 m x 13 m), and a normally closed tamper switch with contacts rated at 28 VDC, 0.125 A maximum.

