



**BOSCH**  
Invented for life

# DS825 and DS840 Series TriTech PIR Detectors



- ▶ Artificial intelligence
- ▶ First step processing
- ▶ Pointable mirrored optics
- ▶ Supervised microwave and PIR
- ▶ Pet and animal immunity
- ▶ Temperature compensation

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

## 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 and Animal Immunity

The detector is able to distinguish between signals caused by humans and signals caused by pets (one dog up to 27 kg [100 lb], 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.

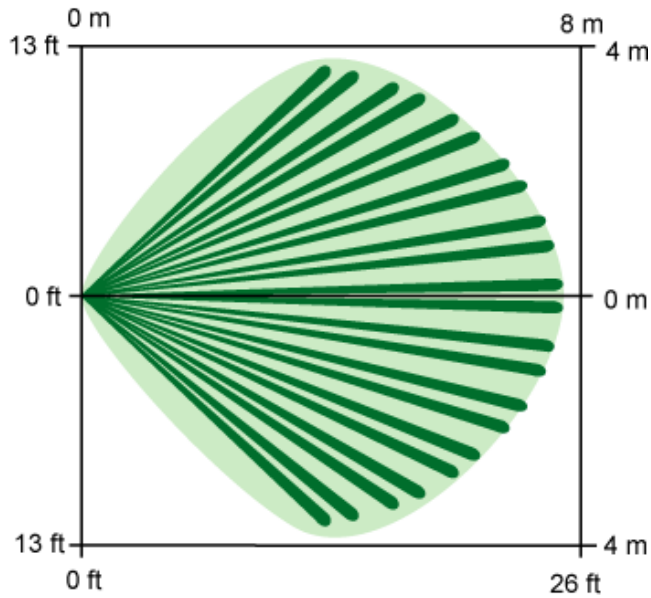
### Test Features

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

**Certifications and Approvals**

**All Models** UL639, Intrusion Detection Units  
**CE**  
**FCC**  
**DS825TA and DS840TA** Comply with EN50131-1 grade 2

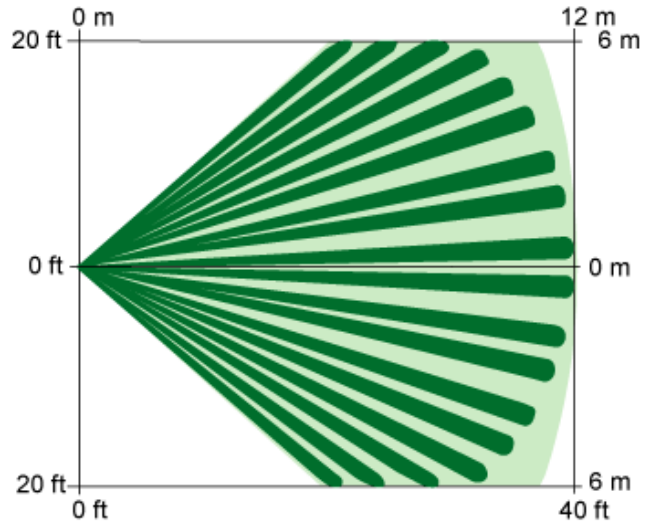
**Installation/Configuration Notes**



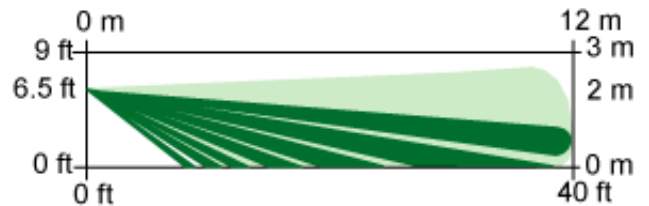
**Top View**  
**DS825 Broad Coverage 7.5 m x 7.5 m (25 ft x 25 ft)**



**Side View**  
**DS825 Broad Coverage 7.5 m x 7.5 m (25 ft x 25 ft)**



**Top View**  
**DS840 Broad Coverage 12 m x 12 m (40 ft x 40 ft)**



**Side View**  
**DS840 Broad Coverage 12 m x 12 m (40 ft x 40 ft)**

## Technical Specifications

### Enclosure Design

Dimensions: 10.8 cm x 7 cm x 4.6 cm  
(4.25 in. X 2.75 in. X 1.8 in.)

Material: High impact ABS plastic enclosure

### Environmental Considerations

Operating Temperature: -40°C to +49°C (-40°F to +120°F)  
For UL Listed installations, 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.

DS825TA and DS840TA: Comply with Environmental Class II (EN50130-5)

### Mounting

Location: Surface or corner mount

Height: 2 m (6.5 ft)

### Outputs

Alarm: Normally-closed reed relay rated at 3.0 W, 125 mA at 28 VDC for resistive loads and protected by a 4.7 Ω resistor in the common C leg.

Tamper: Normally-closed tamper switch with contacts rated at 28 VDC, 125 mA maximum

### Power Requirements

Current Draw: 16 mA at 12 VDC

Voltage: 6 VDC to 15 VDC

## Ordering Information

DS825 Detector (10.525 GHz) DS825

Operates at 10.525 GHz. Provides 7.5 m x 7.5 m (25 ft x 25 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS825T Detector (10.525 GHz) DS825T

Operates at 10.525 GHz. Includes a tamper switch. Provides 7.5 m x 7.5 m (25 ft x 25 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS825TA Detector (10.687 GHz) DS825TA

Operates at 10.687 GHz. Includes a tamper switch. Provides 7.5 m x 7.5 m (25 ft x 25 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

## Ordering Information

DS825TB Detector (9.9 GHz) DS825TB

Operates at 9.9 GHz. Includes a tamper switch. Provides 7.5 m x 7.5 m (25 ft x 25 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS825TB-FRA Detector DS825TB-FRA

Operates at 9.9 GHz. Includes a tamper switch. For use in France. Provides 7.5 m x 7.5 m (25 ft x 25 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS840 Detector (10.525 GHz) DS840

Operates at 10.525 GHz. Provides 12 m x 12 m (40 ft x 40 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS840T Detector (10.525 GHz) DS840T

Operates at 10.525 GHz. Includes a tamper switch. Provides 12 m x 12 m (40 ft x 40 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS840TA Detector (10.687 GHz) DS840TA

Operates at 10.687 GHz. Includes a tamper switch. Provides 12 m x 12 m (40 ft x 40 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS840TB Detector (9.9 GHz) DS840TB

Operates at 9.9 GHz. Includes a tamper switch. Provides 12 m x 12 m (40 ft x 40 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

DS840TB-FRA Detector (9.9 GHz) DS840TB-FRA

Operates at 9.9 GHz. Includes a tamper switch. For use in France. Provides 12 m x 12 m (40 ft x 40 ft) coverage, first step processing, movable mirrors, pet and animal immunity.

### Accessories

B335-3 Low-profile Swivel-mount Bracket B335-3

Plastic, swivel, low profile bracket for walls. The vertical pivot range is +10° to -20°; the horizontal pivot range is ±25°. Shipped in packages of three.

B338 Universal Ceiling Bracket B338

Plastic swivel bracket for ceilings. The vertical pivot range is +7° to -16°; the horizontal pivot range is ±45°.

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