

DS820i/DS835i Surface or Corner Mount TriTech PIR/Microwave Detector with Pet Immunity



The DS820i and DS835i Detectors provide immunity to false alarms caused by pets (one dog up to 100 lbs. / 45 kg, two dogs up to 60 lbs. / 27 kg, or up to 10 cats). Passive infrared and microwave processing provides excellent catch performance with freedom from false alarms. This small unobtrusive detector is simple to install and does not require field adjustments.

■ Features

- Artificial Intelligence
- Flexible Mounting Height
- Supervised microwave
- No adjustment necessary
- Pet immunity
- Draft/insect immunity
- 8 Detection Layers including Look Down Zones
- 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. microwave range is factory set, but may be field adjustable if desired.

First Step Processing

First Step Processing (FSP) allows for instant response to human targets without sacrificing false alarm immunity to other sources. By adjusting its sensitivity based on signal amplitude, polarity, slope, and timing, FSP eliminates the need for the installer to select the sensitivity levels for the application.

Microwave signal

Adaptive processing adjusts to background disturbances. This helps to reduce false alarms while maintaining catch performance.

Test features

Externally visible, tricolor alarm LED indicates each technology independently.

Flexible Mounting Height

7.5 to 9 ft. (2.25 m to 2.74 m)

Supervised microwave

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

Pet immunity

The detector is able to distinguish between signals caused by humans and signals caused by pets (one dog up to 100 lbs. / 45 kg, two dogs up to 60 lbs. / 27 kg, or up to 10 cats). This provides immunity to false alarms while maintaining proper catch performance of human targets.

Draft/insect immunity

The sealed optical chamber provides immunity to drafts and insects.

Temperature compensation

The sensor adjusts its sensitivity to maintain consistent catch performance at critical temperatures.

■ Certifications and Approvals

UL Standard UL639, Intrusion Detection Units

Approvals FCC Compliant



■ Patents and Trademarks

4,660,024; 4,764,755 5,077,548; 5,208,567

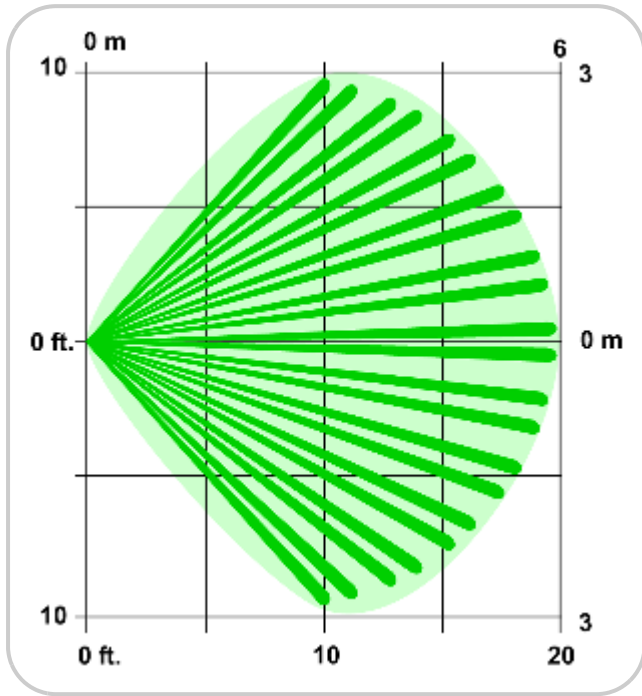
5,262,783; 5,450,062 5,670,943

■ Planning

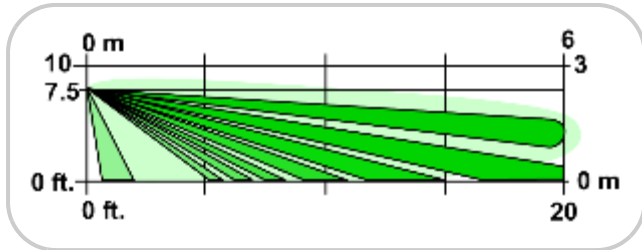
Coverage

DS820i Broad: 20 ft. x 20 ft. (6 m x 6 m)

Top View

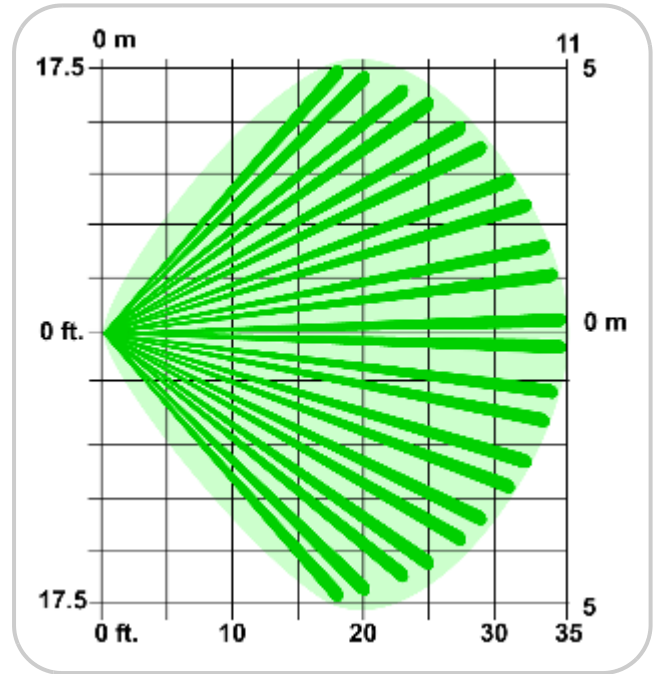


Side View

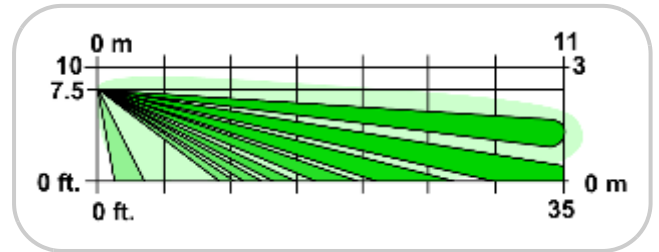


DS835i Broad: 35 ft. x 35 ft. (11 m x 11 m)

Top View



Side View



■ Technical Specifications

Alarm Output	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.
Enclosure Design	
Material:	High impact ABS plastic enclosure
Dimensions (HxWxD):	3.75 in. x 2.25 in. x 1.5 in. (9.5 cm x 5.7 cm x 3.8 cm)
Environmental Considerations	
Operating Temperature:	-40°F to +120°F (-40°C to +49°C) <i>For UL Certificated installations,</i> +32°F to +120° (0°C to +49°C)
Mounting	
Location:	Surface or corner mount
Radio Frequency Interference (RFI) immunity	No alarm or setup on critical frequencies in the range from 26 to 950 Megahertz at 50 v/m.
Power Requirements	6 to 15 VDC, 16 mA @ 12 VDC; 35 mA maximum.

■ 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.

DS820i 20 ft. (6 m) Detector with 10.525 GHz Microwave Frequency

Prod. ID	DS820i
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Surface or corner mount DS820i TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz and a coverage pattern of 20 ft. x 20 ft. (6 m x 6 m).

DS820iT 20 ft. (6 m) Detector with 10.525 GHz Microwave Frequency and Tamper Switch

Prod. ID	DS820iT
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The surface or corner mount DS820iT TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz, a coverage pattern of 20 ft. x 20 ft. (6 m x 6 m), and a normally closed tamper switch with contacts rated at 28 VDC, 125 mA maximum.

DS835i 35 ft. (11 m) Detector with 10.525 GHz Microwave Frequency

Prod. ID	DS835i
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The surface or corner mount DS835i TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz and a coverage pattern of 35 ft. x 35 ft. (11 m x 11 m).

DS835iT 35 ft. (11 m) Detector with 10.525 GHz Microwave Frequency and Tamper Switch

Prod. ID	DS835iT
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The surface or corner mount DS835iT TriTech PIR/Microwave Detector provides a microwave frequency of 10.525 GHz, a coverage pattern of 35 ft. x 35 ft. (11 m x 11 m), and a normally closed tamper switch with contacts rated at 28 VDC, 125 mA maximum.

