

DS820 and DS835 TriTech Microwave/PIR

DS820 or DS835	Units/installations in the U.S.
DS820-A, DS820-B, DS835-A, DS835-B	Units with different frequencies for specific country requirements and optional accessories.



The DS820 and DS835 are microprocessor-based TriTech Passive Infrared/Microwave Intrusion Detectors that provide immunity to false alarms caused by pets (one dog up to 100 lbs. or 45.36 kg, two dogs up to 60 lbs. or 27.2 kg, or up to 10 cats). Passive Infrared and Microwave processing provides excellent catch performance with freedom from false alarms.



PET FRIENDLY

■ Features

- Artificial Intelligence*
- Draft/Insect Immunity
The sealed optical chamber provides immunity to drafts and insects.
- 5 Detection Layers including “Look Down Zones”
- 5 Mounting Options

- Supervised Microwave and PIR*
Patented fully supervised microwave and PIR circuitry provides single technology coverage in the event the microwave subsystem fails.
- Selectable PIR Sensitivity*
- 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.
- Temperature Compensation
The sensor provides compensation at critical temperatures.
- Vertical and Horizontal Pointability
- UL Listed, ULC Listed, FCC Certified, CE

* patented

■ Basic Function

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)

- 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

- 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.

Test Features

- Externally visible alarm LED flashes to indicate a trouble condition.




Certification

UL Listing	BP1448
CE-EMC	89/336

Patents

4,660,024	5,077,548
4,764,755	5,262,783
5,208,567	5,450,062

Optional Accessories

	B335 Low Profile Mount Bracket Shipped in packages of 3.		B800 Ceiling Mount Bracket
	B328 Gimbal Mount Bracket		

Technical Specifications

Power Requirements	9 to 15 VDC, 16 mA @ 12 VDC
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.
Tamper Output	Normally Closed tamper switch. Contacts rated at 28 VDC, 0.125 amp maximum.
Microwave Frequency	DS820 or DS835: 10.525 GHz DS820-A or DS835-A: 10.687 GHz (Export only) DS820-B or DS835B: 9.9 GHz (Export only)

Radio Frequency Interference (RFI) Immunity	No alarm or setup on critical frequencies in the range from 26 to 950 Megahertz at 50 v/m.
Storage & Operating Temperatures	-40°F to +120°F (-40°C to +49°C). For UL Certificated installations, +32°F to +120°F (0°C to +49°C).
Enclosure Design	High impact ABS plastic enclosure. Measures (HxWxD) 5 in. x 2.8 in. x 2.2 in. (12.7 cm x 7.1 cm by 5.6 cm).
Standard Mounting	Surface or corner mount. Recommended mounting height is 6.5 ft. (2 m). Mounts to standard single gang electrical box.
Optional Mounting	B335 Low Profile Mount Bracket, B328 Gimbal Mount Bracket, B800 Ceiling Mount Bracket
Internal Pointability	+2° to -10° vertical, ±10° horizontal (unit is shipped with look down lens masked)

Coverage

Standard Coverage

DS820 Broad: 20 ft. x 20 ft. (6 m x 6 m)
DS835 Broad: 35 ft. x 35 ft. (11 x 11 m)

