

DT-7435/DT-7435C

The fully-featured DUAL TEC® DT-7435 motion sensor achieves reliable protection and improved false alarm immunity through DualCore™ signal processing, K-Band microwave technology and Uniform Sensitivity Optics ensure optimum performance.

FEATURES:

Reliable Detection With 100 lb. Animal Immunity

The combination of DualCore signal processing, Uniform Sensitivity Optics and K-Band technology, provides installers with both quality detection and the ability to ignore pets or other animals up to 100 lbs.

Advanced DualCore Signal Processing

DualCore signal processing analyzes PIR and microwave signals through the microcontroller. It supports a multitude of advanced functions, including Concurrent Diagnostics, Digital Fluorescent Light Interference Filter, Digital Adaptive Microwave Threshold, adaptive baselines, and Bi-Directional Temperature Compensation.

Superb Detection Through K-Band Technology

K-Band microwave technology delivers sharp detection without holes or weak spots. The custom-made source offers Pattern Shaping to fill the protected area with a broad, balloon-shaped pattern which matches the PIR pattern. It also offers Pattern Containment to reduce the penetration of microwave energy through walls.

Enhanced False Alarm Prevention Features

The DT-7435 protects against false alarms due to RF signals, electrostatic discharge, and electrical overstress. The patented black bug guard improves white light immunity and digital adaptive microwave thresholds automatically adjust for room disturbances.

Immune to Pets up to 100 lbs.

Backed by extensive design and field experience with pet immunity, the DT-7435 delivers robust pet immunity without impacting detection performance.

Uniform Sensitivity Optics

The custom-designed Fresnel lens provides the same sensitivity for human targets at the edge of the pattern as exists directly in front of the sensor, giving the DT-7435 consistent coverage throughout the protected area.

Digital Adaptive Microwave Thresholds

The DT-7435 digitally adjusts its thresholds to account for room disturbances such as ceiling fans and other repetitive moving objects which are not intrusion events. The result is excellent false alarm immunity even in "active" rooms.

Digital Fluorescent Light Interference Filter

Potential false alarms due to fluorescent lights are eliminated with a digital filter with infinite rejection. Frequency of the filter is selectable between 60Hz or 50Hz via DIP switch.

White Light Immunity

A patented black bug guard reduces false alarms by providing 6,500 lux of white light immunity. This helps reduce false alarm problems caused by lights, flashlights or reflective objects.

Concurrent Diagnostics

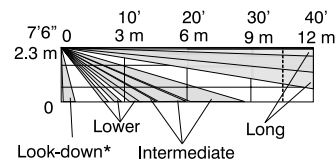
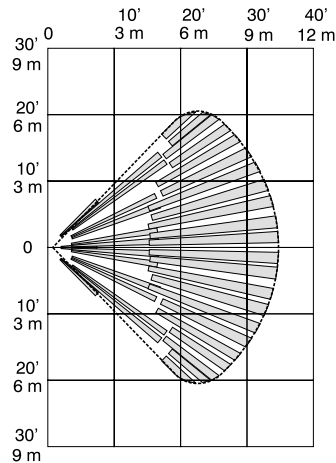
Optimum performance and reliability are assured through comprehensive diagnostics that do not compromise detection during testing. In addition to performing a full self-test upon power-up, microwave supervision is performed continuously; PIR supervision is performed once every hour. Temperature compensation is monitored and updated every 30 seconds.



**Dual
Technology
Motion
Sensor**

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Detection Patterns



*Look-down fingers are enabled only when the look-down mask is removed.

SPECIFICATIONS:

Range:

35' x 35' (11m x 11m)

Alarm Relay:

DT-7435: Energized Form A

DT-7435C: Energized Form C

125mA, 25VDC, 20 ohm series resistor

Tamper:

(NC) 50mA, 24VDC

Power Requirements:

7.5 - 16VDC (8.0 - 16VDC for UL installations)

DT-7435: 25mA typ., 30mA max at 12VDC

DT-7435C: 30mA typ., 35mA max at 12VDC

AC Ripple: 3V peak-to-peak at 12VDC nominal

Frequencies:

24.125GHz (K-band)

PIR White Light Immunity:

6,500 lux typical

Fluorescent Light Immunity:

50Hz or 60Hz, selectable

RFI Immunity:

30V/m, 10MHz - 1000MHz

Operating Temperature:

14° to 131° F (-10° to 55° C) 5% - 95% relative humidity (non-condensing)

Self-test Intervals:

Microwave supervisionContinuous

PIR Self-Test.....Once every hour

Temp. Compensation.....Every 30 seconds

PIR Fields of View:

22 long range edges, 12 intermediate edges, six lower edges, four look-down edges

Dimensions:

4.685" x 2.795" x 1.654"

(11.9cm x 7.1cm x 4.2cm)

Sensitivity:

Standard: 3-4 steps

Intermediate: 2-3 steps

Accessories:

SMB-10 Swivel Mount Bracket

SMB-10T Swivel Mount Bracket w/Tamper

Note: Swivel mount brackets should not be used for pet immune applications.

ORDERING:

Part No.

DT-7435/DT-7435C

Description

Dual Technology Motion Sensor

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