

DT8012F24/16F24 MOTION SENSOR

DUAL TEC® Motion Sensor with/without Pet Immunity

Engineered for effortless installation, Honeywell's DUAL TEC DT8012F24 and DT8016F24 motion detectors offer exceptional performance in a sleek, compact small form factor design, with an easy, trouble-free, out of the box experience to simplify and reduce setup time.

These sensors achieve optimal performance and sensitivity by incorporating leading edge sensing technologies, custom developed extended range Fresnel optics, look down, cover and wall tamper, and selectable pet immunity* to maximize intruder detection while minimizing false alarms.



FEATURES AND BENEFITS

- **New advanced 24Ghz K-band radar** – Grade 2 sensor with both Passive Infrared (PIR) and 24Ghz k-band radar/microwave technology allows detection of smaller movements for more precise target detection to reduce false alarms without unwanted overpenetration of the radar signal, even through glass in windows or doors
- **Sleek, sturdy housing** – The sleek, sturdy housing fits into a variety of residential and building styles and blends with any room décor. ABS plastic is used for shock and impact protection. The housing offers a convenient wiring channel, knockouts for mounting and wiring, and easy access to wiring terminals. To make installation easier, mounting screws are conveniently secured inside the detector rear housing
- **Sealed optics and electronics** – The optics and electronics are assembled into the front enclosure and sealed with a protective cover to prevent damage during installation. The sealed optical chamber also prevents drafts and insects from affecting the detector
- **Captive screws** – To mount the detector on the wall, the installer will insert the screw into the integrated mounting feature where it will be automatically held in place, making mounting the detector quick and easy
- **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 detector, giving these detectors consistent coverage throughout the protected area
- **Wall-to-wall coverage** – Wide and long detection coverage with look-down zone for coverage range protection that exceeds similar products in the market
- **Advanced 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
- **False alarm immunity** – The DUAL TEC 24G family is designed to meet false alarm standards including NF&A2P two shields and EN50131-2-2 or EN50131-2-4. Microprocessor controls help filter out real signals from false sources
- **Pet-friendly selectivity** – Installers can turn pet immunity on or off with the flip of a DIP switch. When pet immunity is enabled, the detector can distinguish between signals caused by humans and signals caused by pets up to 45 kg*
- **Patented mirror look down** – Provides better coverage up close with multiple zones in the look-down area
- **PIR white light immunity** – A patented black bug guard reduces false alarms by providing white light immunity. This helps reduce false alarm problems caused by lights, flashlights or reflective objects
- **Flexible mountings** – The DT8012/DT8016 and the IS3016 family can be mounted on walls, in corners or on ceilings, with heights from 2.1 m to 2.7 m and is compatible with the SMB10 family of swivel brackets

* Pet immunity available on DT8012F24

Honeywell

DT8012F24/16F24 – DUAL TEC MOTION SENSOR

Inside View



TABLE 1. SPECIFICATIONS

Characteristic	Parameter
Detection type	PIR + Microwave
Range (DT8012F24)	12 m × 17 m
Range (DT8016F24)	16 m × 22 m
EOL resistors	Alarm & tamper : 1K, 2.2K, 4.7K & 5.6K ; default = 1K
Detection zones	36 long range, 46 intermediate, 18 lower, 2 look down
Walk test	30 s
Microwave frequency	K-Band : 24.200 GHz
RFI immunity	20 V/m 10 to 1000 MHz, 15 V/m 1000 to 2700 MHz
Mounting height	2.3 m optimal
Power requirements	9 Vdc to 15 Vdc
Consumption	24 mA typical, 30 mA maximum, 12 Vdc; AC ripple: 3 V peak-to-peak at nominal 12 Vdc
Alarm relay	Energized form A; 30 mA, 25 Vdc, 22 Ohms resistance maximum. Alarm relay duration: 3 seconds
Tamper	Cover & wall; (NC with cover installed) Form A; 30 mA, 25 Vdc; magnetic field
Operating temperature	-10°C to 55°C
Temperature compensation	Advanced dual slope
Relative humidity	5 % to 95 %, non-condensing
PIR white light immunity	10,000 Lux typical
Fluorescent light filter	50 Hz/60 Hz
Dimensions	9,85 cm H × 5,7 cm W × 4,4 cm D
Weight	94,2 g / 3.32 oz (net weight)
Weight Pet Immunity (DT8012F24)	45 kg
Approval (DT8012F24)	EN50131-2-4 Grade 2 Class II, NF&A2P two shields
Approval (DT8016F24)	EN50131-2-4 Grade 2 Class II, NF&A2P two shields

TABLE 2. ORDERING INFORMATION

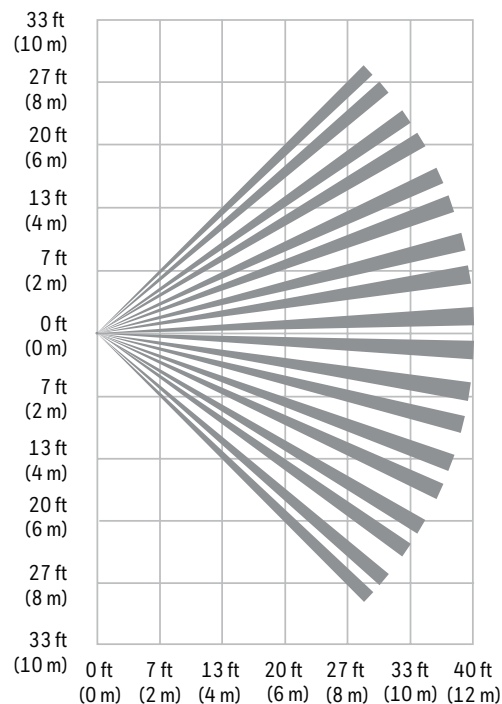
Part Number	Description
DT8012F24	DUAL TEC Motion Sensor, 12 m, PI, 24 GHz
DT8016F24	DUAL TEC Motion Sensor, 16 m, 24 GHz
SMB10	White swivel mount bracket (5 pack)
SMB10C	White ceiling mount bracket (5 pack)
SMB10T	Tampered white swivel mount bracket (5 pack)

DT8012F24/16F24 - DUAL TEC MOTION SENSOR

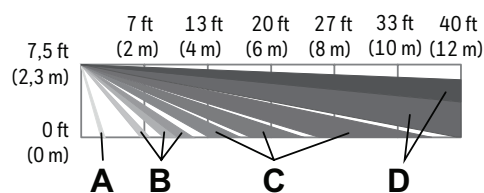
DETECTION PATTERNS

DT8012F24

Top View

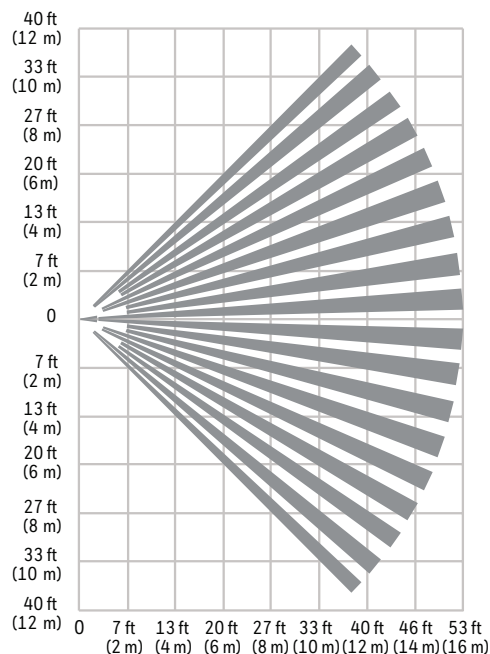


Side View

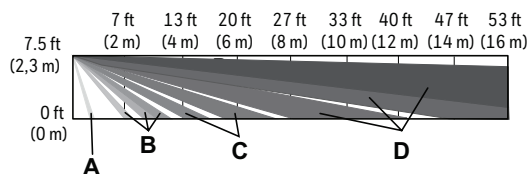


DT8016F24

Top View



Side View



For More Information

hwl.co/securityUK

Honeywell Commercial Security

Building 5 Carlton Park
King Edward Avenue
Narborough, Leicester
LE19 0LF

Tel: +44 (0)1163 500714
www.honeywell.com

DUAL TEC® is a trademark or registered trademark of Honeywell International Inc. in the United States and other countries. All other trademarks are property of their respective owners.

Honeywell reserves the right, without notification, to make changes in product design or specifications.

HBA-SEC-DT8012F24-DT8016F24_MF24-DS-UK-EN-0625-V1
© 2025 Honeywell International Inc.

THE
FUTURE
IS
WHAT
WE
MAKE IT

Honeywell