

DT8016AF24/MF24 MOTION SENSOR

DUAL TEC® Motion Sensor with/without Anti-Mask

Designed for mid to high-end commercial environments where a Grade 3 system may be required, the new Honeywell DT8016AF24 anti-mask motion sensor delivers reliable protection with improved false alarm immunity through patented solutions. It includes DualCore™ signal processing which is ideal for areas that are difficult to protect with standard products and integrates a total of five patented solutions to improve reliability and installation.

In addition to this, the installer will benefit from the design of the sensor which allows easy access to the connectors with its quick plug-in feature.

Furthermore, this motion sensor offers integrated EOL resistors and an enhanced walk test feature saving time on installation.

With the DT8016AF24/DT8016MF24, optimum performance is achieved using K-Band microwave technology and Uniform Sensitivity Optics.



FEATURES

- **Plug-in electronics**
– Designed for easy installation with an automatic plug-in connector
- **Integrated End-of-Line (EOL) resistors** – EOL resistors for alarm as well as tamper loop and anti-mask are already incorporated, saving installation time and reducing service calls
- **Flash light walk test**
– Reduces installation time as the walk test can be enabled by simply pointing a flash light at the sensor
- **Mirror optics** – With mirror optics, this motion sensor uses the most reliable technology offering the best detection/false alarm ratio
- **Highest security approval** – High quality performance sensor which meets the requirements of high risk environments (EN Grade 2 or Grade 3)
- **Infrared anti-mask technology (DT8016AF24 version only)** – Quickly detects intentional and accidental masks or blocks. The sensor sends a trouble signal whenever it encounters mask conditions. This significantly reduces the chance of any sensor security breaches
- **Extensive detection coverage** – Extremely dense, wide and long detection range compared to similar products on the market providing superior coverage
- **Professional design** – The DT8016AF24 and DT8016MF24 sensors are designed for high level security installations with a unique professional look distinguishing it from low value sensors
- **Patented PIR signal analysis solution** – The sensor looks for a wide time frame and integrates the signal received prior to any alarm triggering decision
- **Patented look down solution** – The installer can change the settings with ease by simply switching the look down enabler on and off, offering a more efficient and reliable solution
- **Patented self test solution** – The sensor tests the full microwave circuit periodically by sending and receiving a test signal. In the event of an anomaly the sensor triggers the antimask/ trouble relay
- **Patented vibration solution** – Built-in shock feature. In the event of vibration, this component overrides the PIR signal and ensures the device stays in Dual mode permanently
- **Patented mounting solution** – To fix the sensor to the wall, the installer simply inserts the screw in the predefined location where it will be automatically held in place making installation quicker and easier

DT8016AF24/DT8016MF24 – DUAL TEC MOTION SENSOR

TABLE 1. SPECIFICATIONS

Characteristic	Parameter
Detection type	PIR (mirror) + Microwave
Range	16 m × 22 m
EOL resistors	Alarm & tamper : 1K, 2.2K, 4.7K & 5.6K ; default = 1K Anti-Mask(*)/trouble : 2.2K, 3K; default = 3K
Detection zones	36 long range, 10 intermediate, 12 lower, 2 look down
Walk test	30 s
Microwave frequency	K-Band : 24.200 GHz
RFI immunity	15 V/m, 80 MHz to 2.7 GHz
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
Anti-Mask(*) / trouble relay	Energized form B; (NC) 30 mA, 25 Vdc; 22 Ohms resistance maximum
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	11,86 cm H × 6,73 cm W × 4,64 cm D
Weight	137 g / 4.83 oz (net weight)
Approval (DT8016MF24)	EN50131-2-4 Grade 2 Class II, NF&A2P two shields
Approval (DT8016AF24)	EN50131-2-4 Grade 3 Class II, NF&A2P three shields

(*) : For DT8016AF24

TABLE 2. ORDERING INFORMATION

Part Number	Description
DT8016MF24	DUAL TEC Motion Sensor, 16 m, ML, 24 Ghz
DT8016AF24	DUAL TEC Motion Sensor, 16 m, AM, 24 Ghz
SMB10	White swivel mount bracket (5 pack)
SMB10C	White ceiling mount bracket (5 pack)
SMB10T	Tampered white swivel mount bracket (5 pack)

For More Information

hwill.co/securityUK

Honeywell Commercial Security

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

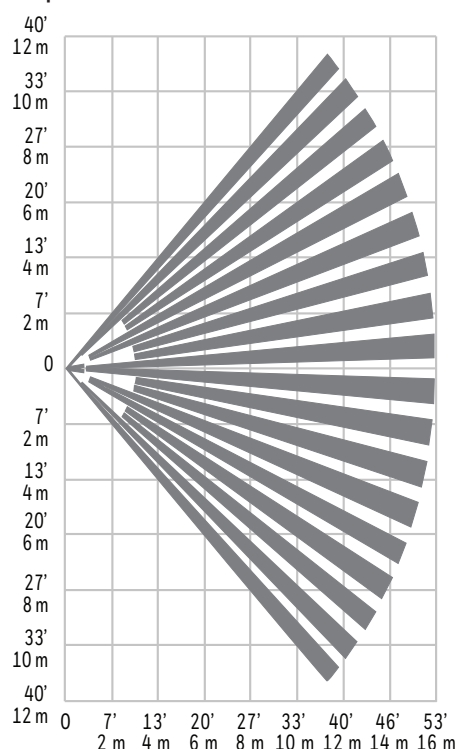
Tel: +44 (0)1163 500714
www.honeywell.com

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.

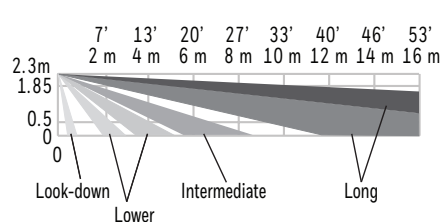
HBA-SEC-DT8016AF24 -MF24-DS-UK-EN-0525-V1
© 2025 Honeywell International Inc.

DETECTION PATTERNS

Top View



Side View



Inside View



THE
FUTURE
IS
WHAT
WE
MAKE IT

Honeywell