

M-TEC Motion Sensor



With Microwave Doppler technology, multi-frequency signals indicate motion. **Dual-Frequency InfraRed™** technology (**DFIR™**) brings this multi-frequency feature to infrared motion sensing. Together, they are **M-TEC™** – dual multi-frequency technology. Only motion produces multi-frequency signals. Other stimuli do not. Good-bye, false alarms!

Best False Alarm Immunity

- ❑ **Reliable 10 GHz Microwave** Doppler technology plus digital signal processing
 - Detects intruders, not distractions
 - De-emphasis of constant motion signals, as from fans
 - Digital filtering of fluorescent light frequencies, 50/60 Hz selectable
- ❑ **Split-View™** DFIR™**** opto-electronic system
 - Dual Frequency InfraRed™ system
 - New quad-element infrared detector **
 - Intruders produce dual-frequency signals
 - False alarm sources produce only one frequency
 - Protection against false alarms arising from:
 - non-moving objects of changing temperature
 - shock
 - extreme radio interference
 - bright white light
 - electrical surges
 - air currents
- ❑ Continuous All-Function Supervision with Failure Indication

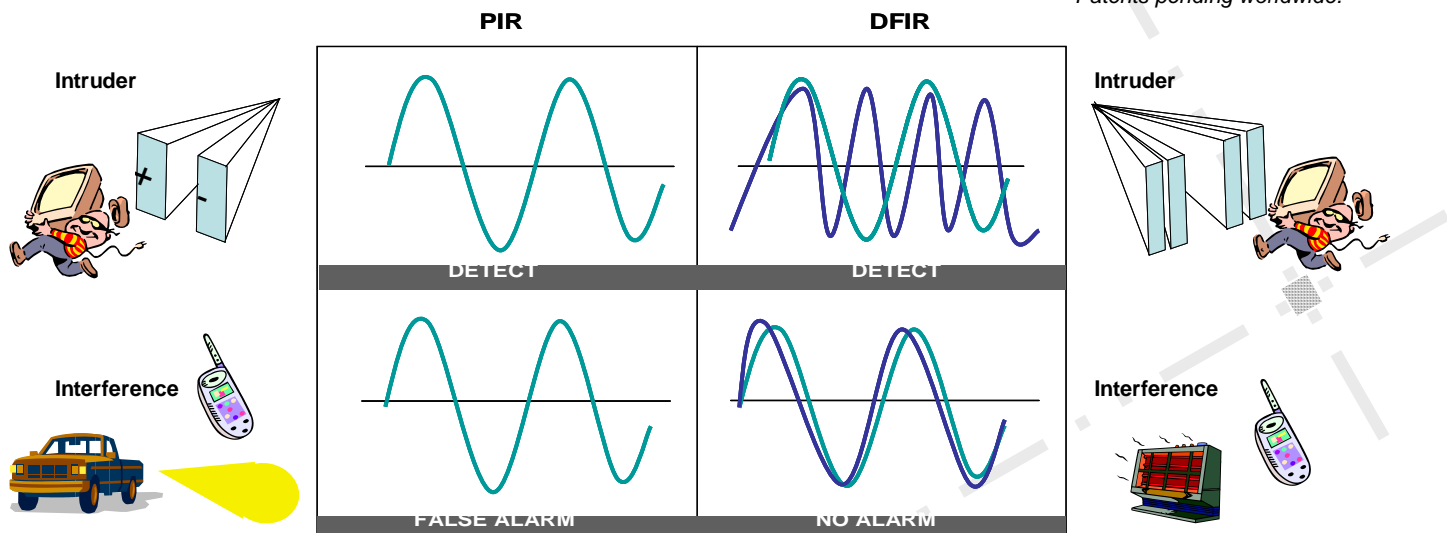
Reliable Detection

- ❑ **SureSpot™** microcontroller waveform processing finds intruder signals among the complex curves and dips of real-world signal waveforms
- ❑ Robust planar-antenna microwave transceiver delivers strong intruder detection signals
- ❑ Summertime detection in near-human temperature environments

Temperature Range

- ❑ Operation from -10°C to +55°C

** U.K. Patent no. GB2414551
Patents pending worldwide.



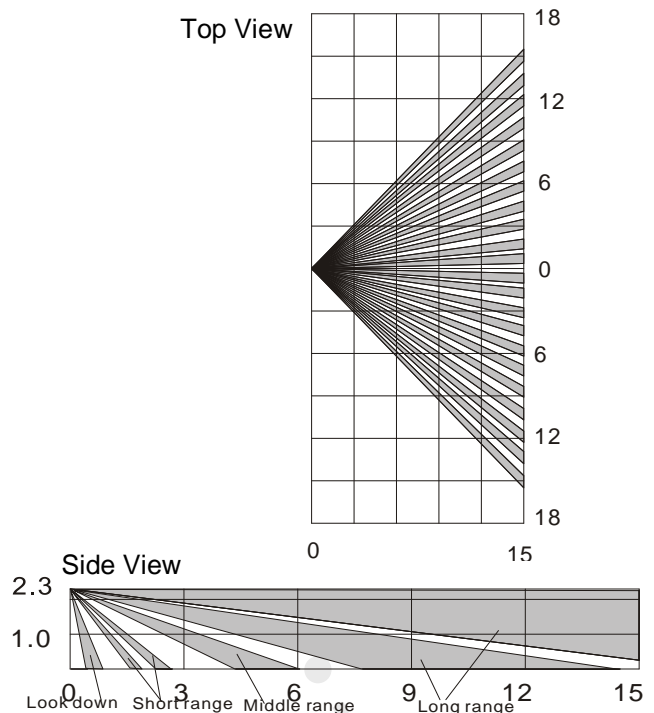
Product Features

- ❑ Look-down detection directly below the sensor to catch wall-creeping intruders
- ❑ Sensitive tamper detection switch
- ❑ Precise factory calibration for dependable performance of every sensor
- ❑ Multiple white light immunity features:
 - Clear bug guard – no light concentration
 - White diffusing lens
 - Large IR detector window (4.2 x 5.2 mm)
- ❑ Consistent detection sensitivity throughout the monitored area
- ❑ Tightly-mated bug guard to protect the sensor optics from insects, spiders and dust
- ❑ Selectable processing sensitivity for different environmental requirements
- ❑ Full-time supervision of microwave function
- ❑ Automatic single-technology operation if one technology fails
- ❑ Continuous supervision of:
 - Power supply voltage range
 - Ambient temperature range
 - IR detector operational parameters
- ❑ Failure indication:
 - Blinking LED
 - Non-closing of alarm relay after any alarm signal event (Note: sensor will NOT initiate an alarm upon failure.)
- ❑ Remote LED Enable control input

Easy Installation

- ❑ 45-degree terminal block for easy wiring
- ❑ 10-minute zone finder mode
- ❑ Deep wire channels and dual cable entry
- ❑ 45-degree corner-mounting surfaces
- ❑ Knock-out holes for mounting and wiring
- ❑ Swivel-mount accessory interface
- ❑ 3 LED colors: Alarm, PIR, Microwave

Optical View Pattern



Swivel Mount



No
Aluminum
Electrolytic
Capacitors

Specifications

Range:	15 m in sensor-facing direction (max) 20 m at 45° angle from sensor-facing direction (max)			
Microwave frequency	9 – 11 GHz, according to country where sold			
Power Supply:	Voltage	Current		
	8 – 14 Vdc	15 mA at 12 Vdc		
Alarm Relay:	Solid state Form A (NC) 50 mA 100 V; 1500 Vrms iso.			
Tamper Switch:	Form A (NC) 50 mA @ 30 Vdc			
RF Immunity:	50 V/m 10 – 1000 MHz; 10 V/m 1-2 GHz			
Sensitivity:	2-event/1.5 C or 3-event/2.0 C			
EN 50131	Grade 2			
Temperature Range:	-10°C to +55°C			
Housing:	High-impact ABS			
Dimensions:	112 x 50 x 42 mm (H x W x D)			
Optical fields-of-view	Long Range	Mid Range	Short Range	Look-down
	88	30	18	8

All specifications are subject to change without notice.