

unum

Dual Tech Pet Immune Motion Detector KSI5102110.300



INTRODUCTION

The DT-PI Motion Detectors unum are professional state-of-the-art motion sensors engineered with the world's best components and materials. Every aspect of these sensors provides the most reliable motion sensing with freedom from false alarms. Additionally the UNUM series introduces in the market the only detectors with trendy invisible lens, i.e. the lens integrated into the front cover thanks to E.L.T.[™] (Embedded Lens Technology) which takes advantage from decades of experience in designing professional lens by adopting its own material to design the entire cover too. DT Motion Detectors UNUM include two motion sensing systems: microwave Doppler motion sensing and PIR motion sensing. Together, the two systems' signals are evaluated by proprietary signal processing algorithms, which reject false alarm conditions while detecting intruders.

The DT-PI Motion Detector **unum** microwave system includes a modern, compact, DRO-based micro-strip Doppler transceiver, with PCB "patch" antennas. The Doppler signal is digitally processed to detect intruders and reject distractions. Constant-motion signals (such as fans) are de-emphasized, and fluorescent light frequencies are digitally removed. The PIR side starts with a EvenEye[™] lens and a top-quality infrared detector. Next, a modern DSP ASIC (patent-pending) converts the infrared detector signal into digital form, for best reliability and stability. Finally, the signal is evaluated by the ASIC's HighBar[™] processor, for "best-in-class" false alarm rejection with excellent intruder detection.

PET IMMUNITY

The DT-PI Motion Detector UNUM is designed to allow the presence of pets (10kg or lighter) without signaling an alarm. It includes a special micro-element lens array that produces much stronger optical signals for humans than for pets 10kg or lighter.

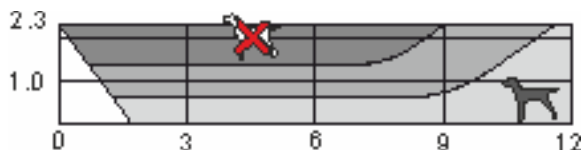
Furthermore, the optical sensitivity of each DT-PI Motion Detector UNUM is factory-calibrated to ensure accurate discrimination between humans and pets.

NOTE: Pets come in many varieties. Some pets (especially larger ones with very short hair), even if lighter than 10kg, may produce enough infrared radiation to cause alarms. DT-PI Motion Detector UNUM users are strongly advised to test the sensor with their own pets, in order to verify that the DT-PI Motion Detector UNUM will not signal an alarm when their pets are moving within its fields of view.

The diagram below shows the DT-PI Motion Detector UNUM's zones of greatest human/pet discrimination. The DT-PI Motion Detector UNUM should be mounted so that pets will occupy only the lighter-colored spaces.



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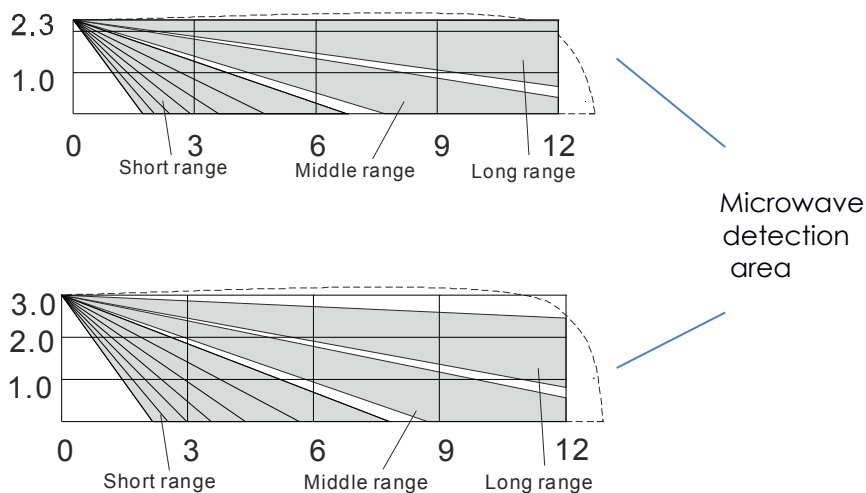
ANTI-MASKING OPERATION

Masks are detected by alteration of the normal PIR/microwave-signal balance that arises from everyday activities around the sensor within about half of the set microwave range. For cases where there are continual microwave motion signals, this mid-range mask detection can be disabled by moving JP1. Additionally, a secured zone (within 1m of the sensor) is monitored. A person entering this zone and bringing hands near the sensor will initiate an accelerated mask detection process. A flashing red LED and open Mask relay indicate masking situation.

MAIN FUNCTIONS

Range: 12 meters

Sensor Optical Pattern (side view, in meters)



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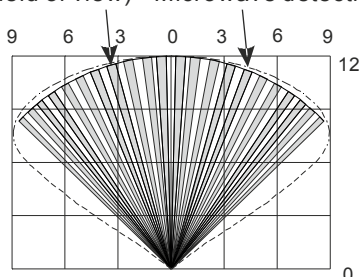
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Optical fields of view:

Long Range	Mid-range	Short-range
44	36	18

Sensor Optical View Pattern (top view, in meters)

One FOV (field of view) Microwave detection area



TECHNICAL DATA

- **IR Sensor:** Dual elements
- **Power Supply:** 8-16 Vdc; 38 mA at 12 Vdc
- **Alarm and Mask Relay:** Solid state, 60V, 50 mA, 1500 Vrms isolation
- **Tamper Switch:** FormA (NC). 50 mA at 30 Vdc
- **Microwave Operating Freq.:** around 10GHz. See unit label
- **Events Detection:** Sure Spot™ processing engine
- **RF Immunity:** 20 V/m, 10-1000 MHz; 10 V/m, 1-2 GHz
- **White Light immunity:** 6500 lux
- **Sensitivity:** Selectable: 2-events or 3-events
- **Range :** Microwave 20%-100% adjustable
- **Lighting rejection:** selectable 50 or 60 Hz.
- **Operating Temperature Range:** from -10°C to +55° C (+14°F to 131°F)
- **Storage :** from -40°C to +60° C (-40°F to 140°F)
- **Housing Material:** Base: ABS Front: HDPE
- **Dimensions:** 113 x 60 x 45 mm (H x W x D)
- **Weight:** 95 gr.

HOW TO ORDER

Ksenia P/N

KSI5102110.300

unum

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PARTS INCLUDED

PRODUCT CODE	NUMBER	DESCRIPTION
KSI5102110.300	1	Motion Detector
	1	Installation manual in IT / EN / FR

ACCESSORIES

PRODUCT CODE	NUMBER	DESCRIPTION
KSI5900000.000	1	Mounting Bracket

CERTIFICATIONS

COUNTRY	CERTIFICATION
Europe	RoHS CE EN 300 440 EN50131-2-4 Grade 2

ENVIRONMENTAL CARE

unum DT PI AM has been specifically designed and manufactured for the environmental respect as follows:

- No PVC
- Halogen free laminates and lead-free PCBA
- Low consumption
- Packaging realized mainly with recycled fibers and materials



we care