



## Product Data Sheet

# DD1012RAM

12 m volumetric Dual Technology/Radar AM motion sensor

### Patented Range Gated Radar Technology

Motion sensors of the DD1000 Series incorporate a UTC Fire & Security patented and unique range gated radar technology allowing the installer to define a clear borderline of the radar range as the radar is used to measure distance between the sensor and moving objects. Effectively the end-user will get rid of any nuisance alarms generated by movements outside the detection pattern.

Every motion sensor comes with 4 possible radar ranges selectable via dip switches allowing the detection pattern to be tailored according to the room where the motion sensor is installed.

The radar operates on 5.8GHz frequency and will not interfere with any WIFI networks.



### PIR Technology in combination with patented mirror optics

Our patented optical mirror technology gives the advantage of gliding focus, which creates a continuous detection curtain from floor level up to installation height.

Within our DD1012 series we are using a dual element pyro generating 2 volumetric curtains for each of the 9 curtain sets.

### Detection technologies working together

These dual tech motion sensors generate an alarm depending on what both technologies – range gated radar and PIR – saw within its detection coverage.

But our dual tech go beyond a simple “AND” function : it classifies the signals from each technology – range gated radar and PIR – to have the best alarm result without being sensitive for nuisance signal sources. This technology creates a uniform sensitivity in all course directions.

### Standard Features

- Patented selectable range gated radar technology clearly defining the radar detection border
- PIR technology with patented mirror curtain optics
- Anti-masking variant using radar technology to protect the outside of the motion sensor against sabotage actions
- Intelligent alarm decision based on signal classification of the PIR and radar alarm
- Automatic continuous self diagnostics on all technologies
- Green mode : option to switch off the radar technology when the security system is not armed
- Holding several security approvals including EN Grade II

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## Specifications

Detection range	4, 6, 9, 12 m selectable via dip switches
Viewing angle	78°
PIR Optics	9 high density mirror curtains
Microwave frequency	5.8 GHz
Max. microwave output (at 1m)	0.003 $\mu\text{W}/\text{cm}^2$
Memory function	Yes
Input power	9 to 15 VDC (12V nominal)
Peak-to-peak ripple immunity	2V (at 12 VDC)
Detector start-up time	60 s
Current consumption	8 to 20 mA (9 mA nominal)
Mounting height	1.8 to 3.0 m
Target speed range	0.2 to 3.0 m/s
Alarm/ Tamper relay characteristic	NC, 80 mA 30 VDC, Form A
Fault relay characteristic	NC, 80 mA 30 VDC, Form A
Alarm time	3 s
Operating temperature	-10 to +55° C
Relative humidity	95% max. non-condensing
Weight	120 g
Dimensions (H x W x D)	126 x 63 x 50 mm
IP/IK rating	IP30 IK04
Pry-off tamper	On board

## Ordering Information

Part No.	Description
DD1012RAM	12m/40ft, Dual Tech, 9C, radar AM
SB01	Wall/ceiling mount bracket ( $\pm 45^\circ$ horizontal, $0^\circ$ or $-5^\circ$ vertical)
AMGR2-10	(10 PACK) Anti-mask Grade 2 easy wiring

## Ease and flexibility of installation

1. Tolerates wall angle deviation and different mounting heights.
2. Limited loss of coverage when objects are placed in the field of the PIR vision.
3. Easy range setting via dip switches of the range gated radar in order to tailor the detection pattern to your needs.
4. Multiple build-in End-Of-Line resistor values with “easy wiring” option available.
5. Plug-in connector.

## Radar anti-masking

Using radar technology this motion sensor is able to detect any anti-mask attacks from a person or objects coming too close to the motion sensor.

## Other members of the family

This family includes motion sensors with variants in detection range, two types of anti-masking masking technology and Pet Immunity. The consistent family aesthetics between the various models ensure a professional approach when installing different sensor types.

