Name: Active Dual Microwave Radar Motion Sensor

Model: DM520

Overview:

Based on the solution of dual microwave radar and powerful fuzzy logic analysis, the DM520 is a new generation active radar sensor which can completely settle the troubles with the faults of traditional sensor. What is more, it can precisely calculate the Instantaneous Distance from sensor to target, absolute RCS, and displacement information. So the DM520 can quickly and efficiently distinguish a real intrusion target from various interferents under complicated environment.

Attractive features:

- EID-Excellent Industrial Design: Outstanding talents integrate refined streamline appearance, creates a fashionable masterpiece. The ultrathin split-structure is convenient for hidden application and quick installation
- SDR-Smart Detection Range: Precisely calculate the Instantaneous Distance from sensor to target. This allows the user to select any detection zone as alarm area within the detection range
- RCS-Absolute Radar Cross Section: Precisely calculate the absolute RCS of target and make an alarm decision. Once RCS is combined with SDR, it makes the sensor touch the acme of pet immunity
- MRD-Displacement Recognition Technology: By using dual microwave radar technology to detect and recognize relative displacement and motion speed of target, it can distinguish the actual intrusion target under the interferences of non-displacement such as swaying trees, clothes etc. objects, to efficiently prevent false alarms
- HDA-Hidden Application: Anything can be used to hide the sensor and cannot influence the detection performance. This can avoid the damage from intruder and enhance greatly system security
- FTC-Free from Temperature Change: The change of the temperature will not affect the detection range at all
- FMR-Fan-shaped Microwave Radiation pattern, not egg-shaped pattern of traditional sensors: Uniform radiation electric-field and perfect similar fan-shaped coverage pattern efficiently increase coverage and radiation field angle.
- WRS-Wide Response Speed: The DM520 can perform normal detection from 0.1m/s to 8m/s
- QDR-Quick Detection Response: Always keeps 2ft or less, even not varying from detection distance
- VQS-Very Quick Startup: The startup of DM520 only takes less than 3 seconds
- NRM-No need of Routine Maintenance, saves maintenance cost and time

Specifications:

- Detection mode: Dual-microwave system
- Judgment basis: RCS, SDR, MRD
- Microwave frequency: 10.525Ghz
- Detection sensitivity: 2ft
- Detection range: 18m X 18m (DM520), 12m X 12m (DM520i)
- Range adjustment: Stepless-adjustable in both directions within 0.2-18m, to achieve precise alarm area, accurate to 0.4m
- Pet immune setting: Settable steplessly from 0 to 60kg
- Anti-mask range: 0 ~ 18m (DM520), 0 ~ 12m (DM520i)
- Working temperature: -20℃ ~ +65℃; -55℃ ~ +65℃ (customizable)
- Relative humidity: 0 ~ 100% (non-condensing)
- Water-proof: IP65 rated (DM520); 3mm professional outdoor ABS cover is vandal-proof and anti-oxidation
- Auto temperature compensation: Digital continuous temperature compensation
- Power supply: 12V/DC/35mA
- Alarm output: PhotoMos relay NC contacts, 200mA
- Tamper output: NC contacts,
- Response speed: 0.1m/s ~ 8m/s
- White light immunity: Free from any light
- RF immunity: ＞50V/m, 10MHz ~ 1,000MHz
- Dimensions: 104 X 72 X 25 mm (DM520i)
- Weight: 55kg

DM520 Active Dual Microwave Radar Motion Sensor Vs. Traditional dual-tech sensor

	DM520	Traditional PIR & Microwave sensors
Displacement recognition	Yes	No
Radar cross section	Calculate precisely	Not calculate
Pet immunity	Set precisely	Not set
Anti-false alarm rate	Very high	High
Missing alarm	Very seldom	Seldom
Instantaneous distance calculation from sensor to target	Calculate precisely	Not calculate
Alarm zone setting	Stepless-adjustable in both directions	Only on the same target and one-way effective
Microwave Radiation pattern	Similar fan-shaped	Egg-shaped

Microwave Radiation angle	110°	＜90°
Hidden application	Yes	No
Anti-mask function	yes (0~12m)	No or ≤ 20cm (if with this function)
Startup time	＜3sec	40sec ~ 90sec
Temperature blind zone	No (within working temperature range)	Yes, ＜-25℃ ＆ 32℃ ~ 36℃
Response speed	0.1m/s ~ 8m/s	0.2m/s ~ 3m/s
Detection Response	≤ 2ft	≥ 2ft ~ 4ft
Routine Maintenance	No need	Need
Price	Same as other sensors or even lower	