TOPARM®

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Industrial-grade Outdoor Motion Sensor DT918

MRD Dual-Microwave Sensor
Industrial-grade Application
Wide working temperature: -55°C ~ 65°C
Anti-mask range 15m

Features:

Specially designed for harsh environment application, DT-918 is capable to proof any influences of environmental change. This professional quality product can be used in the situation of war, oil field, plateau and iceberg etc. It can even work normally at -55°C ~ +65°C.

- Industrial-grade outdoor motion sensor
- The patented Dual Microwave with MRD displacement identification technology: Adopts cutting-edge Phased Array Radar technology to analyze and recognize the shape and relative displacement speed of any intruding objects. It can accurately recognize the differences between the moving human body and the interferential objects such as swaying plants, swaying wet clothes etc., thus to prevent false alarms
- The original ATS mode: after start the ATS mode, the sensor can work even at -55°C
- The original MRD-PLUS technology: The change of the surrounding temperature will not affect the detection range at all
- AMS anti-mask technology: Anything blocking the detector will not interfere the detection sensitivity and range
- Adjustable detection sensitivity
- Outdoor application: IP55 rated; 4mm outdoor professional ABS cover is anti-oxidation
- Digital temperature compensation: Can auto adjust the AGC circuitry of detector to ensure effective detection range and stable frequency
- Self-adaptive circuit: The built-in high performance industrial-grade microprocessor can analyze the surrounding environment on the startup of the motion snesor, then optimize and adjust the operational parameter to ensure a reliable, stable and effective detection
- White light immunity: Free from any light
- High light LED indicator: Ensure clear indication even under the strong sunray
- PhotoMos relay
- 24-hour/Night working mode optional
- Optional DT9FP1 stainless bracket, DT9FP2 swivel bracket, DT9FP3 ceiling bracket

Certificates:

- CE, CCC




Specifications:

- Detection mode: MRD Dual-Microwave system
- MRD Anti-false alarm index*: >95% (tested in Toparm lab, simulating all kinds of harsh environment, traditional dual-tech sensors <4%)
- Microwave frequency: 10.525GHz, 10.325GHz, compliant with FCC standard
- Detection sensitivity: Linearity adjustable
- Detection range: 15m × 15m
- Anti-mask range: 0 ~ 15m
- Working temperature: -55°C ~ +65°C (no temperature blind zone)
- Relative humidity: 0 ~ 99% (non-condensing)
- Pressure: 430 ~ 1,350 hector-Pascal
- Water-proof: IP55 rated; 4mm outdoor professional ABS cover is vandal-proof and anti-oxidation
- Auto temperature compensation: Digital temperature compensation
- Power supply: 9.5V ~ 15V/DC/14mA
- Alarm output: PhotoMos relay NC contacts, 35V/DC/150mA/MAX
- Tamper output: NC contacts, 60V/AC/500mA
- Response speed: 0.3m/s ~ 2m/s
- White light immunity: Free from any light
- RF immunity: >52V/m, 10MHz ~ 1,000MHz
- Dimensions: 152 × 75 × 55mm
- Weight: 150g

MRD technology sensor Vs. Traditional dual tech sensors

	DT918	Traditional PIR & Microwave sensors
Anti-false alarm index*	≥95%	<4%
Identify human and object	Yes	No
Working temperature	-55°C ~ +65°C continual	-25°C ~ +45°C with dead range
Anti-masking function	Yes (0 ~ 15m)	No or ≤ 20cm (if with this function)
Temperature interference	Not affected (within working temperature range)	Affected, < -25°C or 32°C ~ 36°C
White light immunity	Free from any light	<10,000 lux
Alarm response speed	Quick	Slow
Rated current	14mA	More than 25mA
Routine maintenance	No need	Need
Price	Same as other sensors or even lower	

Anti-false alarm index (Tested in Toparm lab, which is specially for MRD Dual-Microwave sensor): 95% is the index of anti-false alarm capability of the MRD sensor under the environment which easily causes false alarms, such as direct sunlight, oblique sunlight, swaying branches, 1 mm ~ 100 mm/h of rainfall and the wind at speed of 0 ~ 40 km/h. (Tested under the same conditions, the Anti-false alarm index of the traditional dual-tech sensors is <4%).