SPECIFICATION

Product Name: Infrared Sensor

Model No.: MC079D RC IR

Issue Date: Sept 09, 2022

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	P&M CHECKED	R&D CHECKED	PREPARED

Shenzhen Merrytek Technology Co.,Ltd
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Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Website: www.merrytek.com

Version	Model No.	Updating Reason	Stage	Date
A0	MC079D RC IR	First Version		2022-09-09

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*Please read the 11th instruction carefully before using this product, since the performance of DC-powered Infrared products is closely related to the stability and characteristics of the auxiliary power supply of the LED driver.

1. Features

(1) High mounting PIR sensor
(2) Mounting height 12m max
(3) IP65 design
(4) Earphone connector,receptacle design
(5) Optional side mount bracket,1/2 inch hole

2. Parameter

Input	Input Voltage	12±1VDC
	Operating Voltage	12V DC
	Ripple Voltage	<100mVp-p
Input	0-10VDC dimming signal	Yes
Sensor Parameters	Detection mode	PIR detection
	Detection Area	100%/75%/50%/25%
	Hold Time	5S/30S/1min/3min/5min/10min/20min/30min
	Stand-by Period	0s/10S/1min/3min/5min/10min/30min/+∞
	Daylight Sensor	Daylight threshold： 5/15/30/50/100/150lux/Disable
		Daylight priority (photocell on/off): see Function 4
	Stand-by DIM Level	10% , 20% ,30% , 50%
	Detection Radius	2-4m (indoor,sensitivity 100%,no direct sunlight to sensor)
	Mounting Height	Typical 10m (12m Max)
Operating Environment	Operating Temperature	0~35℃
	Storage Temperature	-20℃~+80℃ Humidity: 10%-95% (non-condensing)
Certificate Standards	Certificate	UL 8750(Pending)
	Environmental Requirement	Compliant to RoHS
	IP Rating	IP65
Others	Wiring Method	DC headphone stand (3.5mm)
	Installation	Mount center or side of highbay
	Dimension	See structure diagram
	Package	Clapboard+carton (K=A)
	Net Weight	80g
	Lifetime	3 years warranty@Ta
Note	When ambient temp. Is over 33℃,detection performance will be affected.	

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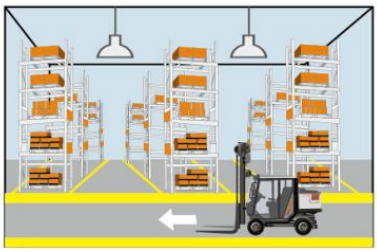
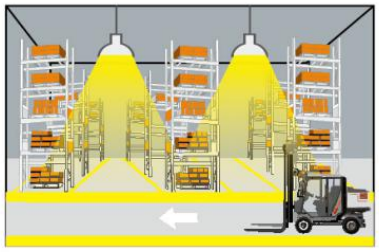
3. Function

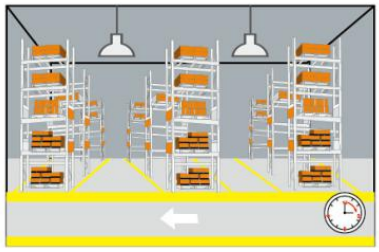
1) On/OFF Function (stand-by period be set to “0”s)



1 With sufficient ambient light, the light will not be switched on even if with motion signal.

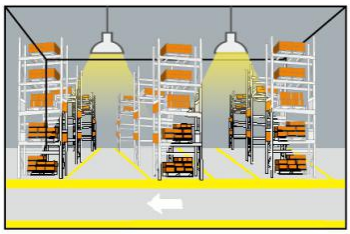


2 With insufficient ambient light, the sensor switches on the light when motion is detected.

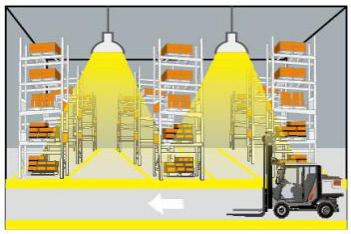


3 After elapse of hold time, the sensor switches off the light when no motion is detected.

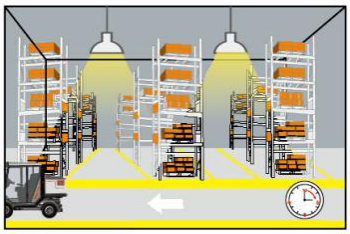
2) 2-step dimming function (stand-by period be set to “+∞”)



1 If there is no motion detected, the light will be remained at a low light level all the time.

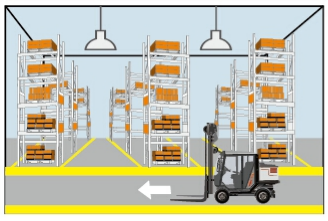


2 When motion is detected, the sensor will switch on the light to 100% brighteness

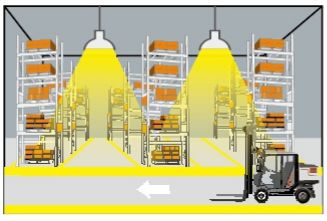


3 After elapse of hold time, the sensor dims the light at the present low light level if no motion is detected.

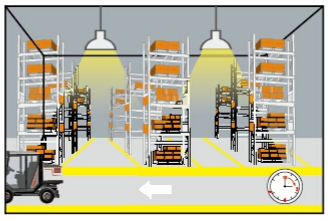
3) 3-step dimming function (stand-by period be set to “10S/1min/3min/5min/10min/30min”)



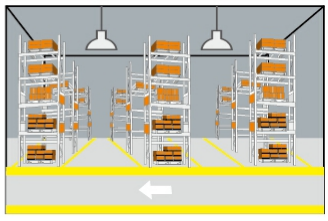
1 With sufficient ambient light, the light will not be switched on even if with motion signal.



2 With insufficient ambient light, the sensor switches on the light when motion is detected.



3 After elapse of hold time, the sensor dims the light at a low light level if no new motion is detected.



4 After elapse of standby period, the sensor switches off the light if no motion is detected in the detection zone.

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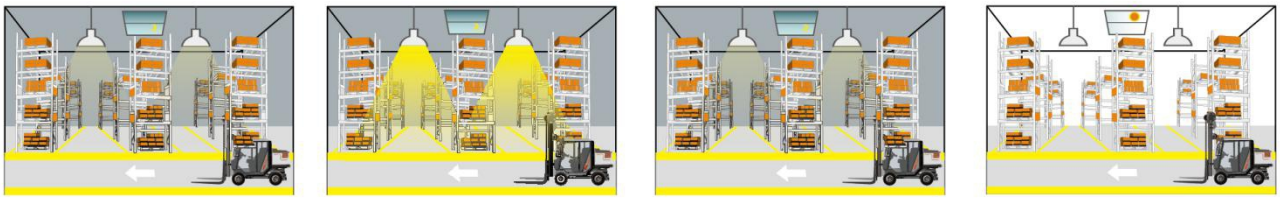
4) Daylight priority:stand-by period set to“+∞ ”,and MH10 Press “DH Mode” ＞3S

ON Value	OFF value
5/15/30/50Lux	150Lux
100Lux	200Lux
150Lux	300Lux



❶ Lamps turn on at a low light level in the night.

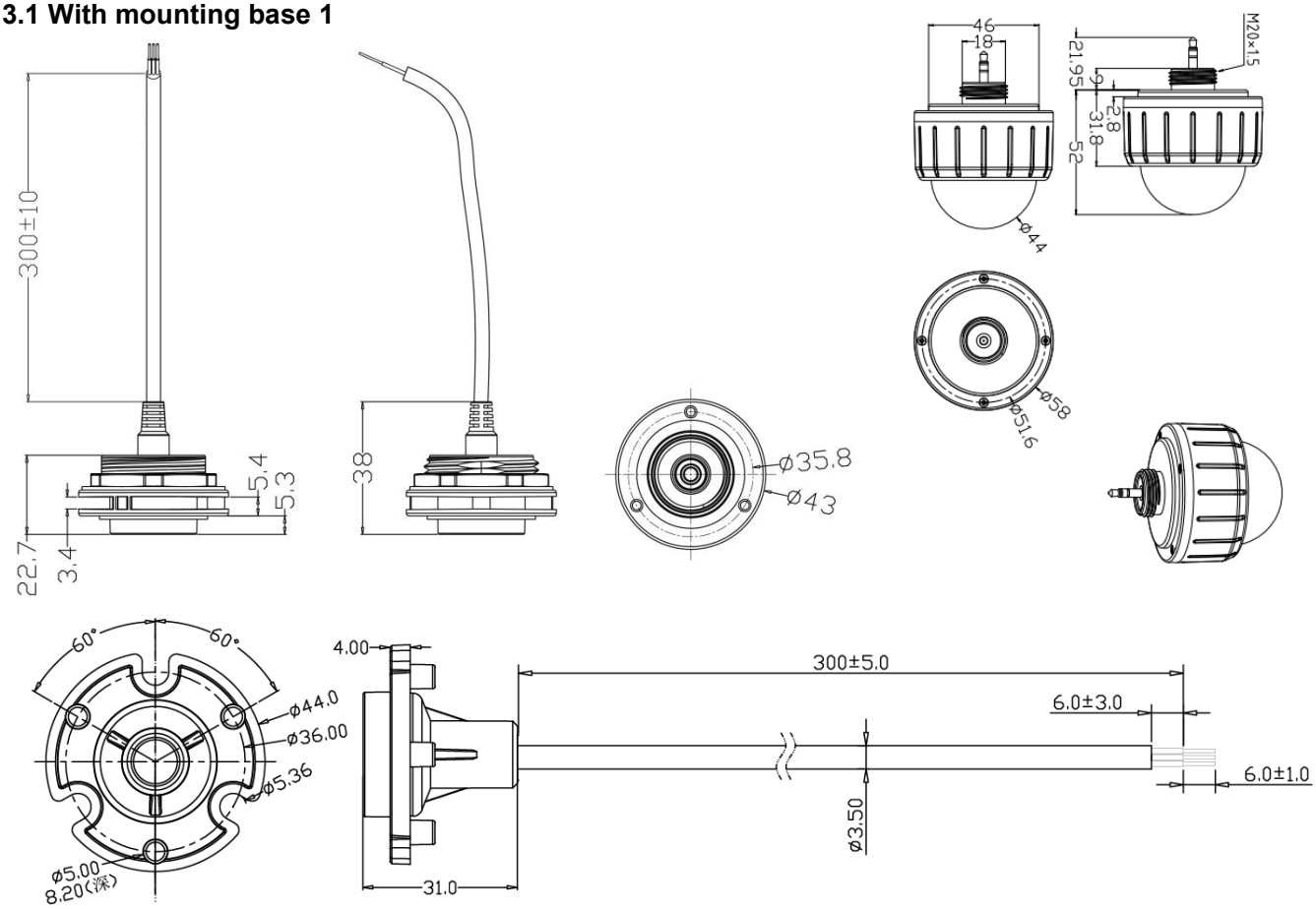
❷ Motion detected, lamp automatically lights up to 100%.

❸ After hold time, the lamp gradually dims to a low light level if no movement detected.

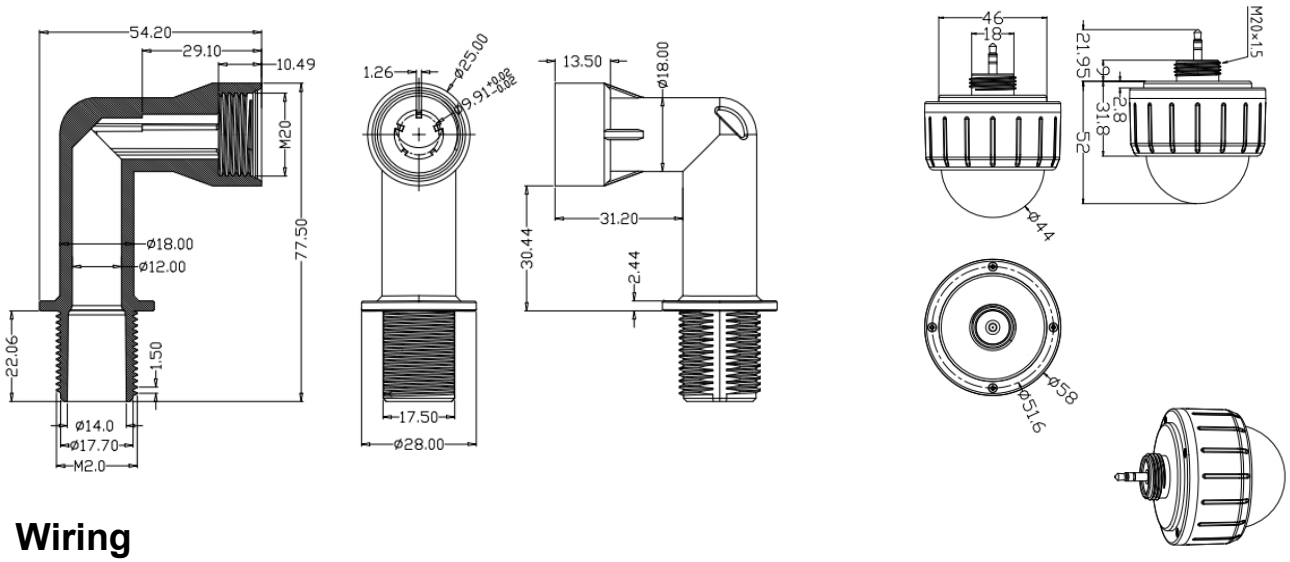
❹ Lamps turn off under enough ambient light.

4. Dimension (mm)

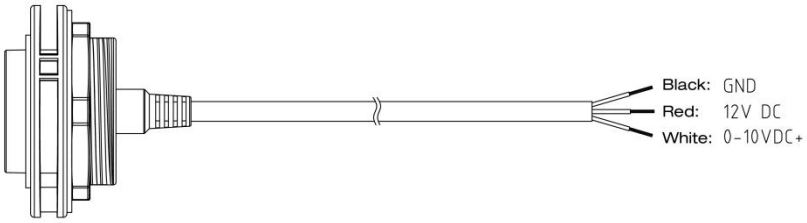
3.1 With mounting base 1



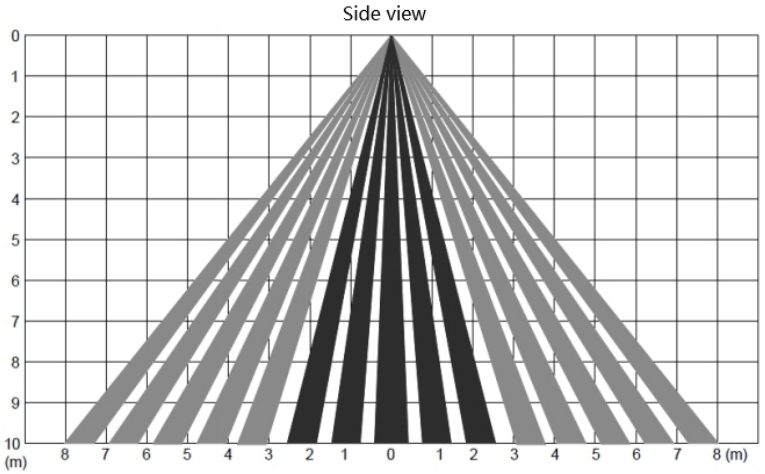
3.2 With mounting bracket 2

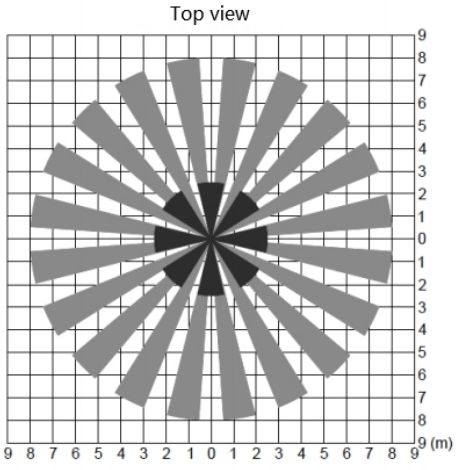


5. Wiring



6. Detection range



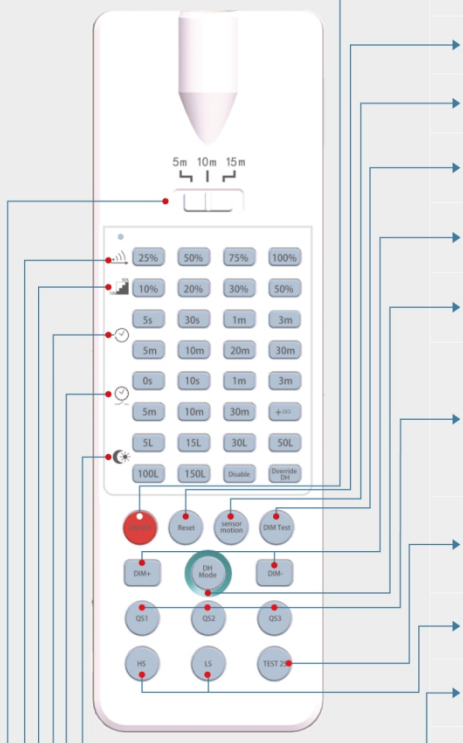


7. Remote Control

MH10

merrytek®

MH10
Instruction

Remote Control Setting	Button	Remarks
	ON/OFF	Press the "ON/OFF" button, the light goes to constant on/off mode, sensor is disabled. Press Sensor motion to quit from this mode and the sensor starts to work. The button have power-off memory function
	Reset	Press "Reset" button, all parameters are same as setting of DIP switch or factory settings.
	Sensor motion	Press "Sensor motion" button, the light quits from the constant on/ off mode,and the sensor starts to work (The latest setting stays in validity)
	DIM Test	Press"DIM Test" button,the 0-10 V dimming works to test whether the 1-10Vdc dimming ports are connected properly.After 2s, it returns to the latest setting automatically.
	DIM+ DIM-	Short press"DIM+/DIM-" button to transmit dimming signal. The brightness of the lamp adjusts at 5% per unit. (only apply for sensor with daylight harvesting function)
	DH Mode	Long Press 3S to enter the Daylight priority function Long Press 3S"Override DH"button to exit the Daylight priority mode and enter the Daylight Sensor mode Short press "Disable"button to exit the Daylight priority mode and the Daylight Sensor mode to enter the normal induction mode
	Q1 Q2 Q3	Note: Detection area / Hold time /Stand-by period /Stand-by dim level / Daylight sensor can be adjusted by pressing the corresponding button.The latest setting will stay valid.
	TEST 2S	Press the "TEST 2S" bottom can enter the test mode anytime.At the mode, the sensor parameters as below:Detection Area is 100%, Hold Time is 2s, Stand-by Dim Level is 10%, Stand-by Period is 0s, daylight sensor disable. This function only for testing. Quit the mode by pressing "RESET" or any other function buttons.
	HS LS	N/A
		Daylight Sensor Set up daylight threshold: 5Lux/15Lux/30Lux/50Lux/100Lux/150Lux/ Disable
		Stand-by period Set up stand-by time: 0S/10S/1min/3min/5min/10min/30min/+∞
		Hold time Set up hold time: 5S/30S/1min/3min/5min/10min/20min/30min
		Stand-by dim level Set up stand-by dim level: 10%/20%/30%/50%
		Detection Area Set up detection area: 25%/50%/75%/100%
		Remote Distance Toggle bottom can set the remote distance of remote control and sensor.

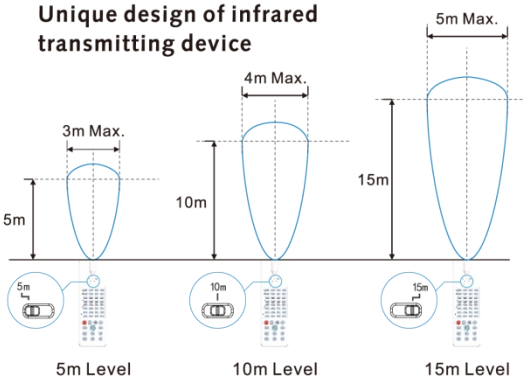
Scence Options	Dection Area	Hold Time	Stand-by period	Stand-by dim level	Daylight Sensor	Induction model
QS1	100%	5min	10min	10%	30Lux	Hs
QS2	100%	10min	30min	10%	Disable	Hs
QS3	100%	20min	30min	10%	Disable	Hs

Remote control and code setting conversion

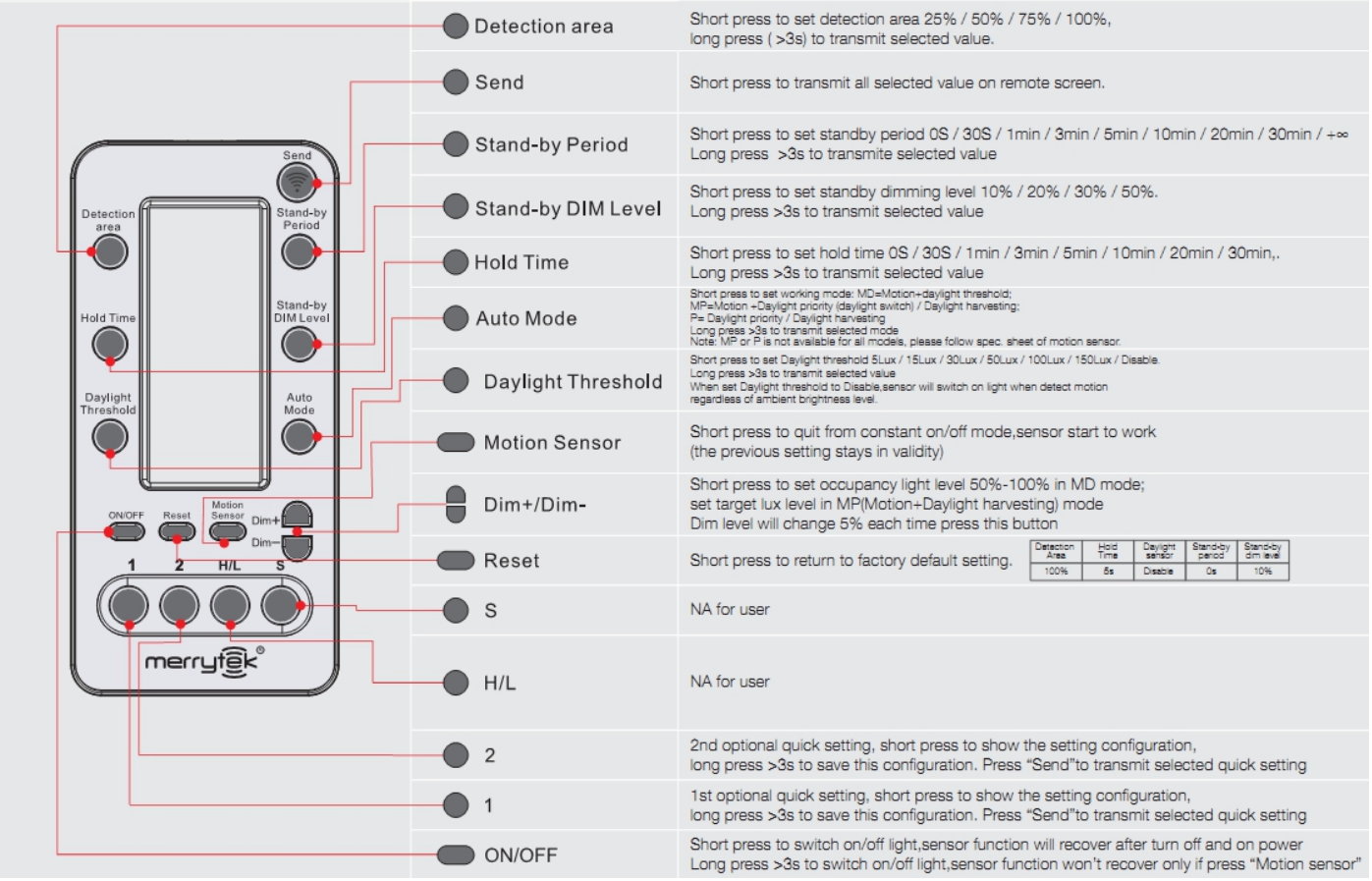
1.DIP switch setting convert to remote control Press any bottom except "RESET" on the remote control, and the sensor settings convert to the function currently selected by the remote control. (No function button settings invalid)

2 remote control convert to DIP switch setting
a. Press the "RESET" button on the remote control, and all settings return to the DIP switch settings of the sensor.
b. Turn off the power, toggle any DIP switch,connect to the power, and all settings return to the DIP switch settings when supply power again.

Unique design of infrared transmitting device



MH12



8. Initialization

After switch on power,sensor will be warmed 45-60s then start to work.

9. Factory Setting

Detection area: 100%; Hold Time: 5S; Stand-by Period: 0S; Daylight Sensor: Disable(factory setting can be changed as required)

10. Application Notice

(1) The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring and changing parameters.

(2) PIR sensor can't penetrate any materials, please make sure no obstacle between sensor and moving people/object.

(3) Sensor may hard to detect people if wear thick clothes in cold winter.

(4) Heat signals will be regarded as moving signals to trigger the sensor. Avoid facing sensor to air condition or other heating source.

(5) Sensor is for indoor use only. Outdoor sunlight could affect the detection of sensor.

(6) Due to continuous improvement, the contents of this instruction could be changed without prior notice.

(7) The dimming performance could be different when work with different 0-10V drivers.

(8) The daylight threshold is measured in a sunny environment without shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of-day and season.

(9) Detection distance is related to height of people, mounting height, mounting angle, working environment,and etc.

(10) Given detecting area is typical value that was measured by 165cm high testers in an indoor open environment.

(11) This product have to use with voltage-stabilized DC power supply whose input voltage is stable and ripple factor is low(ripple factor is lower than 100mV; load current is greater than 25mA).

(12) When installing in new environment, please install and test at least 5pcs product firstly before mass installation.