



HIGH BAY RF WIRELESS MICROWAVE MOTION SENSOR HMW38/RF



1. Technical Specifications

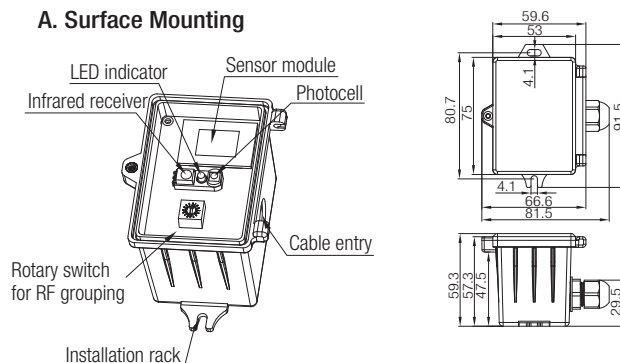
Product type	RF wireless microwave motion sensor (tri-level control)
Operating voltage	120~277VAC 50/60Hz
Rated load	Capacitive: 400W@120V; 800W@220-277V Resistive: 800W@120V; 1600W@220-277V
Power consumption	< 1.5W
Detection angle	360°
Detection area (DxH)	10 x 12m (Maximum)
Mounting height	12m (Maximum)
Detection range	10% / 50% / 75% / 100%
Hold time	2s / 30s / 1min / 5min / 10min / 15min / 20min / 30min
Stand-by time	0s / 10s / 1min / 5min / 10min / 30min / 1h / +∞
Stand-by dimming level	10% / 20% / 30% / 50%
Daylight threshold	2 ~ 500Lux, Disable
RF transmission distance	30 meters in the open area
RF frequency	868MHz (FSK mode)
Warming up time	20s
Operating temperature	-20°C ~ +50°C
IP rating	IP65

2. Installation

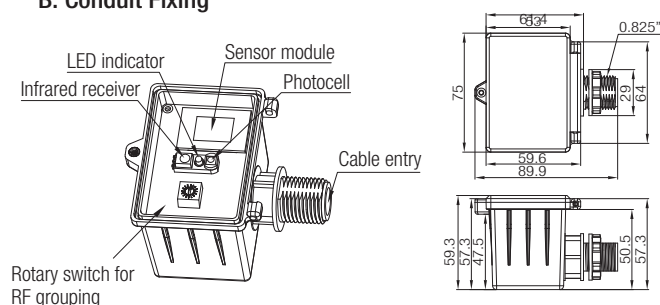
⚠ Warnings:

1. Installation qualified engineer must be carried out by a in accordance with local regulations.
2. Disconnect supply before installing.
3. Install to a solid surface - vibrations may cause mis-triggering.
4. Ensure environmental conditions are suitable for electronic equipment

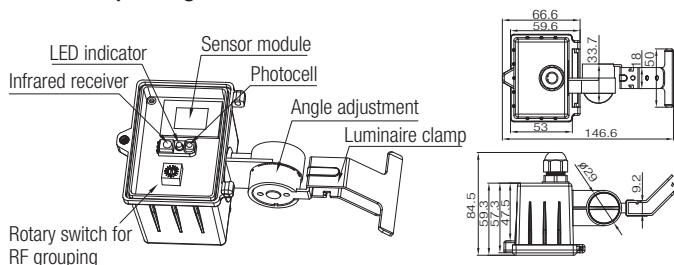
A. Surface Mounting



B. Conduit Fixing



C. Clamp Fixing



3. Rotary Switch for RF grouping



Rotary switch for RF grouping
(Please see the location in 2. Installation)

15 channels are available for fast grouping via rotary switch, simply selecting the same channel on each unit, the grouping is automatically completed.

Noted: channel "0" is not for fast grouping, and sensors can only be grouped by remote control.

4. Functions

4.1 Tri-level Control (Corridor Function)

Hytronik builds this function inside the motion sensor to achieve tri-level control, for some areas require a light change notice before switch-off.

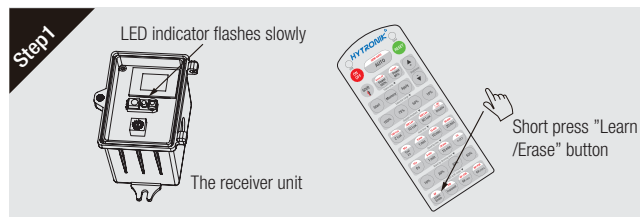
It offers 3 levels of light: 100%-->dimmed light-->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.

4.2 Lux Off Function

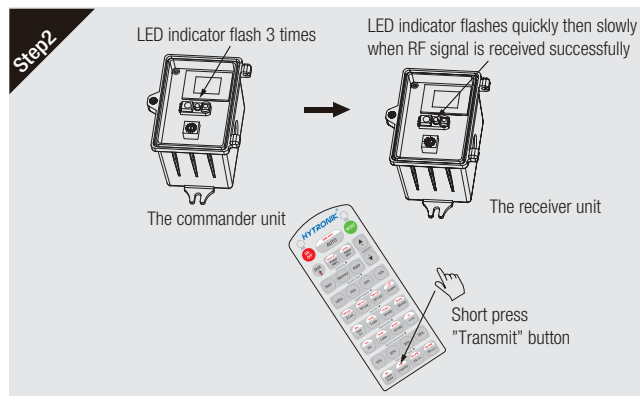
The built-in daylight sensor can read ambient natural light and switch off the fixture automatically whenever artificial light is not required (natural light lux level exceeds daylight threshold).

Note: if the stand-by time is preset at "+∞", the fixture never switches off even when natural light is sufficient.

5. RF grouping



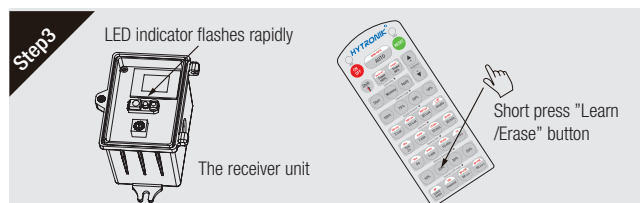
Short press "Learn/Erase" button on RC to the receiver to activate pairing mode, and the LED indicator on receiver unit will flash slowly.
Note: up to 30 units can be paired.



Short press "Transmit" button on RC to the commander, the LED indicator on commander unit will flash 3 times to send the transmission signal.

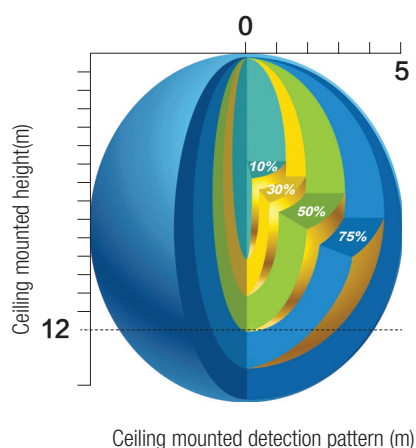
Upon receiving the transmission signal, the indicator on receiver unit will flash quickly then slowly to indicate the success of pairing. One more short press on "Learn/Erase" button to the receiver unit to complete the pairing process, the receiver unit will quit the pairing mode.

The sensor can serve as both commander and receiver, simply repeat above steps the other way around.

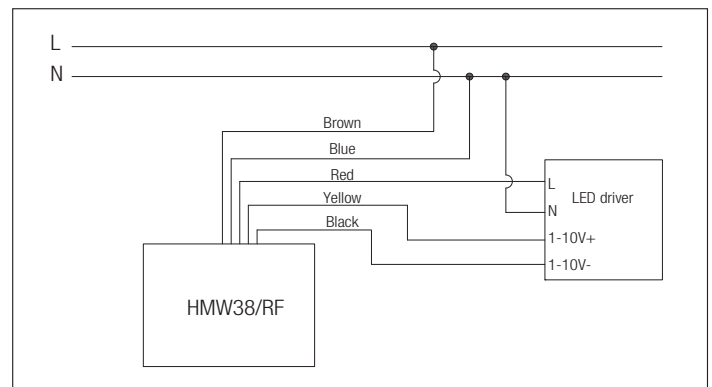


Erase:
Long press "Learn/Erase" button for 3s to the sensor unit, the indicator rapidly flashes 12 times, all commands it has received before will be erased.

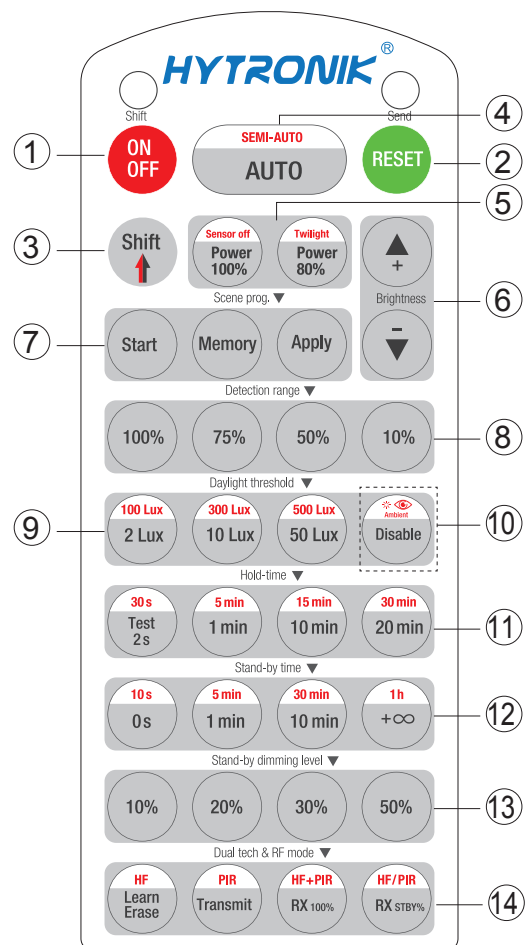
7. Detection Pattern



6. Wiring Diagram



8. Description of the Button Functions (remote control HRC-11)



HRC-11

<p>Permanent ON/OFF [button ①] Press button ①, to select permanent ON or permanent OFF mode. * Press button ②/ ④ to resume automatic operation.</p> <p>RESET[button ②] Press button ② , all settings go back to the rotary switch settings.</p> <p>Shift [button ③] Press button ③ , the LED on the top left corner will flash to indicate mode selection. All values / settings in RED are in valid for 20 seconds.</p> <p>Auto Mode [button ④] Press button ④ to initiate automatic mode. The sensor starts working and all settings remain as before the light was switched ON/OFF. Note: the function of semi-auto is disabled.</p> <p>Power output [button ⑤] Press button ⑤ , the light output shifts between 80% and 100%. Note: the function of "Sensor off" and "Twilight" are disabled.</p> <p>Brightness +/- [button ⑥] Press button ⑥ to adjust the light brightness between 10%~100% .</p> <p>Scene prog. [zone ⑦] (One-key-commissioning) 1. Press button "start" to program. 2. Select the buttons in ⑧ "Detection range", ⑨/⑩ "Daylight hreshold", ⑪ "Hold time", ⑫ "Stand-by time", ⑬ "Stand-by dimming level" to set all parameters. 3. Press button "Memory" to save all the settings programmed in the remote control. 4. Press button "Apply" to set the settings to each sensor unit(s). For example, to pre-set detection range 100%, daylight threshold Disable, hold time 5min, stand-by time +∞, stand-by dimming level 30%, steps should be: Press button ⑦ Start, button ⑧ 100%, ⑩ Disable, ③ Shift, ⑪ 5min, ③ Shift, ⑫ +∞, ⑬ 30%, ⑦ Memory. By pointing to the sensor unit(s) and pressing ⑦ Apply, all settings are passed on the sensor(s).</p>	<p>Detection range [zone ⑧] Press buttons in zone ⑧ to set detection range at 100% / 75% / 50% / 10%.</p> <p>Daylight threshold [zone ⑨] Press buttons in zone ⑨ to set the daylight sensor at 2Lux / 10Lux / 50Lux / 100Lux / 300Lux / 500Lux or Disable. Note: To set daylight sensor at 100Lux / 300 Lux / 500Lux, press button ③ Shift at first.</p> <p>Ambient daylight threshold [button ⑩] 1. Press button ③ Shift, the red LED is on for indication. 2. Press button ⑩, the ambient lux level is sampled and set as the new daylight threshold.</p> <p>Hold time [zone ⑪] Press buttons in zone ⑪ to set the hold time at 2s / 30s / 1min / 5min / 10min / 15min / 20min / 30min. Note: 1. To set hold-time at 30s / 5min / 15min / 30min, press button ③ Shift at first. 2. 2s is for test purpose only, stand-by period and daylight sensor settings are disabled in this mode. *To exit from Test mode, press button ② or any button in zone ⑪ .</p> <p>Stand-by time [zone ⑫] Press buttons in zone ⑫ to set the stand-by period at 0s / 10s / 1min / 5min / 10min / 30min / 1h / +∞. Note: "0s" means on/off control; "+∞" means bi-level control, 100% on when motion detected, and remains at the stand-by dimming level when no presence after hold-time.</p>	<p>Stand-by dimming level [zone ⑬] Press buttons in zone ⑬ to set the stand-by dimming level at 10% / 20% / 30% / 50%.</p> <p>Dual tech & RF mode [zone ⑭] 1. HF, PIR, HF+PIR, HF/PIR are disabled. 2. Short press button "Learn/Erase" to activate pairing mode on all receiver (slave) units to be paired. Note: up to 30 units can be paired. 3. Short press button "Transmit" at the commander unit(master), the LED will flash 3 times to indicate the transmission signal has been sent. The receiver units flashes slowly to indicate the success of pairing. Repeat this process for two way communications, a single sensor may act as both commander and receiver. 4. Long press "Learn/Erase" button for 3s, and the receiver unit clears all commands it has received before. 5. Press button RX100%, the light on receiver unit is 100% on upon receiving RF on signal; Press "RX STBY%" button, the light(s) goes to preset stand-by dimming level directly.</p>
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9. Trouble Shooting

MALFUNCTION CAUSE REMEDY	CAUSE	REMEDY
The fixture does not light up	Incorrect daylight threshold setting	Adjust daylight threshold setting
	Faulty fixture	Replace fixture
	No power supply	Check power to sensor
	Detection zone not targeted	Check detection area setting
The fixture is always on	Continued movement in the detection zone	Check detection area setting
The fixture is on when it should not	Sudden change in temperature due to weather (wind, rain, snow) or air expelled from fans, open windows	Adjust zone, change installation site