HIGH BAY RF WIRELESS MICROWAVE MOTION SENSOR   HMW38/RF

1. Technical Specifications

Product type	RF wireless microwave motion sensor (tri-level control)
Operating voltage	220~240VAC 50/60Hz
Rated load	Capacitive:800VA
	Resistive:1000W
Power consumption	< 1.5W
Detection angle	360°
Detection area (Max.)*	Installation Height : 20m (forklift) 15m (person)
	Detection Range (Ø) :20m
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℃ ~ +50℃
IP rating	IP65

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.
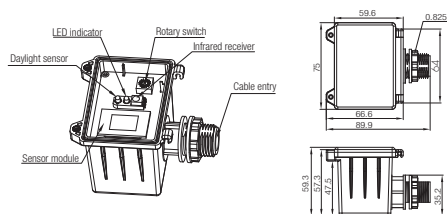
2. Installation

⚠ **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
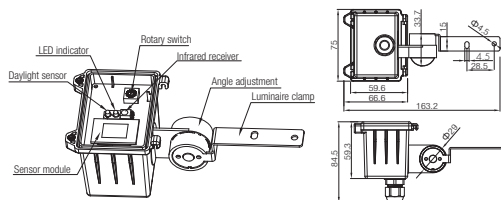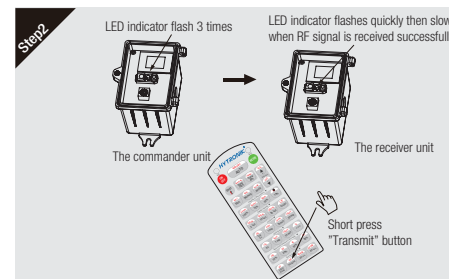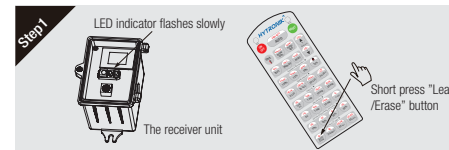
A. Ceiling mount
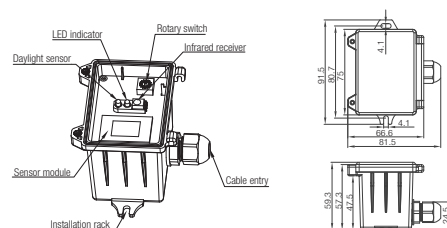
B. Screw to the Luminaire by conduit

C. Attach to the shade by clamp

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.

6. Wiring Diagram
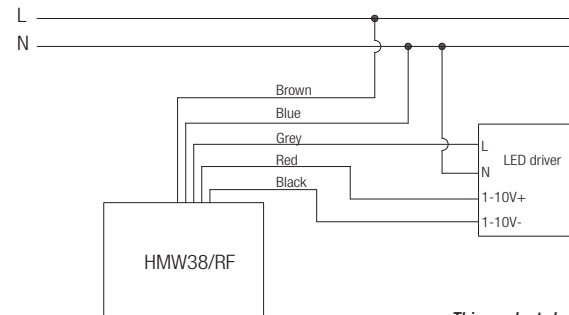
———This product should be installed by a qualified electrician.

7. Detection Pattern
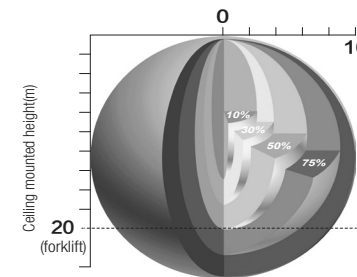
Ceiling mounted detection pattern (m)

* For single person walking across, the detection range is reduced by 1/3.

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

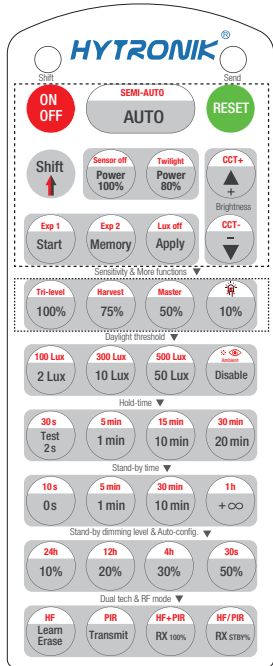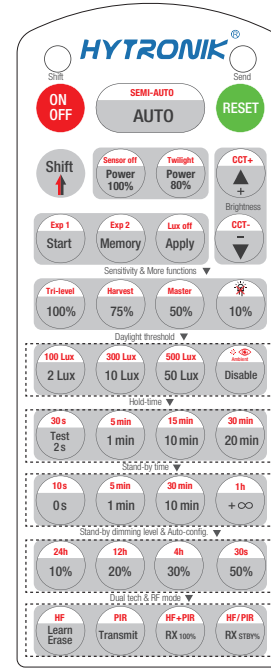| Button	Description
ON OFF	Press button "ON/OFF" to select permanent ON or permanent OFF mode. * Press button "AUTO"/ "RESET" to exit this mode.
RESET	Press button "RESET", perform DIP Switch/Rotary Switch settings. The default settings are: Auto mode; Detection range:100%; Hold time:1min; Stand-by time:5min; Stand-by dimming level:20%; Daylight sensor disable; RX 100%.
Shift	Press button "Shift", the LED on the top left corner is on to indicate mode selection. All values / settings in RED are valid for 20 seconds.
AUTO	Press button "AUTO" to initiate automatic mode. The sensor starts working and all settings remain as before the light is switched ON/OFF;
SEMI-AUTO	This key is not appliable on this product.
Power 100% 80%	Press buttons in zone "Power out" to select the light output at 80% (at initial 10,000 hours) or 100%.
Sensor off Twilight	This key is not appliable on this product.
▲ ▼	Press these two buttons to adjust the light output brightness and set a new target lux level. The daylight sensor can measure ambient daylight level and ignore the LED light, so as to calculate how much artificial light is needed to maintain the target lux level.
CCT+ CCT-	This key is not appliable on this product.
Start Memory Apply	1. Press button "Start" to program. 2. Select the buttons in "Detection range", "Daylight threshold", "Hold-time", "Stand-by time", "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 set detection range 100%, daylight threshold Disable, hold-time 5min, stand-by time +∞, stand-by dimming level 30%, the steps should be:* *Press button "Start", button "100%", "Disable", "Shift", "5min", "Shift", "+∞", "30%", "Memory". By pointing to the sensor unit(s) and pressing "Apply", all settings are passed on the sensor(s).*
Lux off	This key is not appliable on this product.
Exp 1 Exp 2	"Exp" refer to Expansion, these two buttons are reserved functions and pending future development.
Sensitivity & More functions	
100% 75% 50% 10%	In AUTO modes, press buttons in zone "Detection range" to set detection range at 100%/75%/50%/10%.
Tri-level Harvest	This key is not appliable on this product.
Master	This key is not appliable on this product.

HRC-11

HRC-11

Zone	Description
Daylight threshold	
2 Lux 100 Lux 10 Lux 300 Lux 50 Lux 500 Lux Disable	Press buttons in zone "Daylight threshold" to set daylight sensor at 2Lux/ 10Lux / 50Lux / 100Lux / 300Lux/500Lux / Disable. *Note: To set daylight sensor at 100Lux / 300Lux/500Lux , press "Shift" button first.*
☼ ◉ Ambient	1. Press button "Shift", the red LED on. 2. Press button "Ambient", the surrounding lux level is sampled and set as daylight threshold / target Lux level.
Hold-time mode	
Test 2s 30s 1 min 5 min 10 min 15 min 20 min 30 min	In AUTO modes, press buttons in zone "hold-time" 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 "Shift" button first.* *2. 2s is for testing purpose only, stand-by period and daylight sensor settings are disabled in this mode.* **To exit from Test mode, press button "RESET" or any button in "Hold-time".*
Stand-by time mode	
0s 10s 1 min 5 min 10 min 30 min +∞ 1h	Press buttons in zone "stand-by time" to set the stand-by period at 0s / 10s / 1min / 5min / 10min / 30min / 1h / +∞. *Note: 1. To set stand-by-time at 10s/ 5min / 30min / 1h, press "Shift" button first.* *2. "0s" means on/off control;* *3. "+∞" means bi-level control, the fixture is 100% on when there is motion detected, and remains at the stand-by dimming level when no presence after motion hold-time. Only when the stand-by time is set in "+∞" and the ambient lux level is below the target lux level, the lux will auto-on.*
Stand-by dimming level & Auto-config.	
10% 20% 30% 50%	Press the button in zone "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30% / 50%.
24h 12h 4h 30s	This key is not appliable on this product.
Dual tech & RF mode	
Learn Erase Transmit	Short press"learn/erase" button to activate pairing mode, then press "transmit" on a primary mode and all the receiver modules will beep 3 times in 1s to indicate the success of paring. Long press the "learn/erase" button for 3s will erase all the commands received previously.
RX 100% RX STBY%	Press button RX100%, the light on receiver unit is 100% upon receiving RF on singal; Press button "RX STBY%", the light(s) oes to pre-set stand-by dimming level directly.
HF PIR HF+PIR HF/PIR	This key is not appliable on this product.

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

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