Installation and Instruction Manual

HYTRONIK ®

HIGH BAY DUAL SENSE SENSOR   HIM31

1. Technical Specifications

Product type	Tri-level control dual sense sensor
Operating voltage	220-240VAC 50/60Hz
Rated load	800VA(Capacitive) / 1000W(Resistive)
Power consumption	< 1W
Detection angle	360°
Detection area (Max.)*	Installation Height : 15m / Detection Range (Ø) :18m
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
Warmming up time	30s
Operating temperature	-30°C ~ +50°C
IP rating	IP65
Sensor mode	HF, PIR, HF+PIR, HF / PIR

2. Rotary Switch Settings

A rotary switch is built inside the sensor for scene selection / fast programming. Total of 16 channels available:

Rotary switch preset (Please see the location in 2. Installation)

Channel	Detection range	Hold time	Stand-by time	Stand-by dimming level	Daylight threshold
0	100%	5s	10s	10%	Disable
1	100%	1min	5min	10%	2Lux
2	100%	5min	10min	10%	10Lux
3	100%	5min	30min	10%	30Lux
4	100%	5min	0s	Disable	10Lux
5	100%	5min	+∞	10%	30Lux
6	100%	5min	+∞	30%	Disable
7	100%	10min	10min	10%	2Lux
8	100%	10min	30min	10%	10Lux
9	100%	10min	+∞	10%	30Lux
A	100%	10min	+∞	30%	Disable
B	75%	10min	+∞	10%	30Lux
C	50%	10min	+∞	10%	10Lux
D	100%	30min	+∞	10%	50Lux
E	100%	30min	+∞	30%	Disable
F	100%	5s	10s	10%	2Lux

Note: settings can also be changed by remote control HRC-11. The last action controls.

3. Functions

3.1 Tri-level Control (Corridor Function)

Hytronik builds this function inside the motion sensor to achieve tri-level control, for some areas it requires 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.

3.2 Lux Off Function

The built-in daylight sensor can read ambient natural light and switch off the fixture automatically whenever artificial light is unnecessary (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.
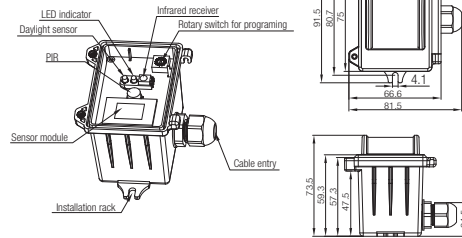
3.3 Load Indication

The light will flash ONCE rapidly after receiving the command from the remote controller.
Note: There is no load indication (the light will not flash) when button ON/OFF, POWER 100% or POWER 80% is pressed.
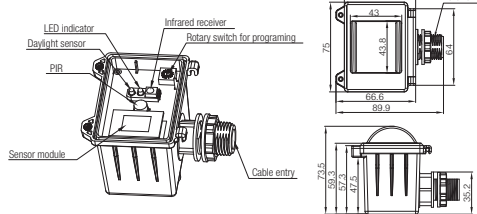
4. Installation

⚠ Warnings:
1. Installation of the sensor involves connecting it to the mains supply. This work must be carried out by a specialist in accordance with electrotechnical regulations.
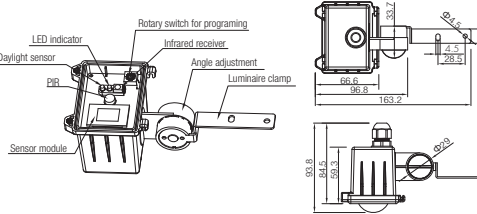2. Disconnect power supply before installing.

A. Ceiling mount

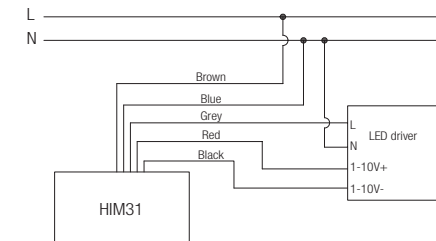### B. Screw to the Luminaire by conduit
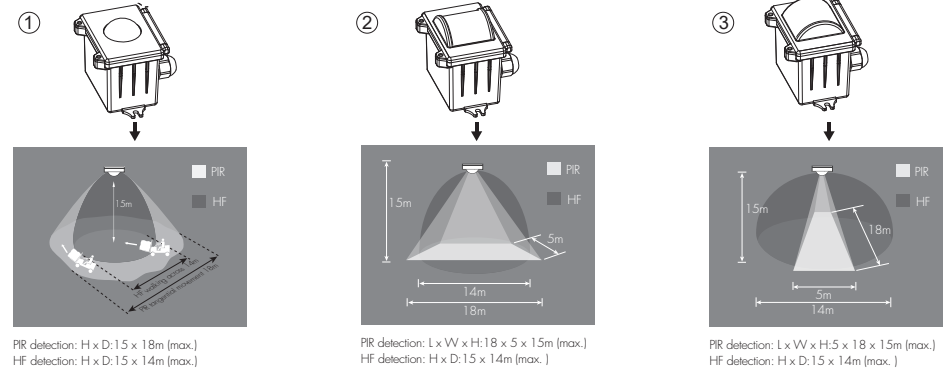

C. Attach to the shade by clamp

Note: We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.
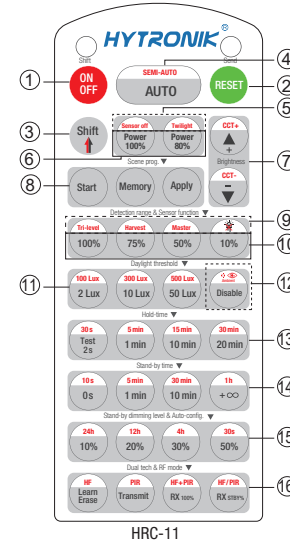
5. Wiring Diagram

6. Three Options for PIR Lens and Detection Patterns (End user can choose the suitable lens in real application for various requirements)

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

PIR detection: H x D:15 x 18m (max.)
HF detection: H x D:15 x 14m (max.)

PIR detection: L x W x H:18 x 5 x 1.5m (max.)
HF detection: H x D:15 x 14m (max.)

PIR detection: L x W x H:5 x 18 x 15m (max.)
HF detection: H x D:15 x 14m (max.)

7. Descriptions of the Button Functions (remote control HRC-11)

HRC-11

Permanent ON/OFF [button①]
Press button①, to select permanent ON or permanent OFF mode.
* Press button②/④ to resume automatic operation.
The mode will change to AUTO Mode after power failure.

RESET[button②]
Press button②, all settings go back to default values as below：
Hold-time 5min, daylight threshold Disabled.

Shift [button③]
Press button③, the LED on the top left corner is on for indication. All values / settings in RED are valid for 20 seconds.

Auto Mode [button④]
Press button④ 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.

Sensor off [button⑤] (Daylight harvest without occupancy)
Note: the function of button⑤ are all disabled.

Power output [button⑥]
Note: the function of button ⑥ are all disabled.

Brightness +/- [button⑦]
Note: the function of button ⑦ are all disabled.

Scene prog. [zone ⑧] (One-key-commissioning)
1. Press button "Start" to program.
2. Select the buttons in ⑩ "Detection range", ⑪/⑫ "Daylight threshold", ⑬ "Hold time", ⑭ "Stand-by time" 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 +∞, the steps should be as follows:
Press button⑧ Start, button⑩ 100%, ⑫ Disable, ③ Shift, ⑬ 5min, ③ Shift, ⑭ +∞, ⑧ Memory. By pointing to the sensor unit(s) and pressing⑧ Apply, all settings are passed on the sensor(s).

Sensor function [button⑨]
Note: the function of button ⑨ are all disabled.

Detection range [button⑩]
Press buttons ⑩ to set the detection range at 100% / 75% / 50% / 10%.

Daylight threshold [zone ⑪]
Press buttons in zone ⑪ to set the daylight sensor at 2Lux / 10Lux / 50Lux / 100Lux / 300Lux / 500Lux or Disable as threshold / target Lux level.
Note: To set daylight sensor at 100Lux / 300 Lux / 500Lux, press button ③Shift at first.

Ambient daylight threshold [button ⑫]
1. Press button ③Shift, the red LED is on for indication.
2. Press button ⑫, the ambient lux level is sampled and set as daylight threshold / target Lux level.

Hold time [zone ⑬]
Press buttons in zone ⑬ 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 ③Shift at 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 button②or any button in zone ⑬.

Stand-by time [zone ⑭]
Press buttons in zone ⑭ to set the stand-by period at 0s / 10s / 1min / 5min / 10min / 30min / 1h / +∞.
Note: To set 0s, 1min, 10min, +∞, press button③"Shift"at first.

All buttons in zone "Stand-by dimming level & Auto-config" and "Dual-tech & RF mode" are disabled.

8. 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	Continous 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