Installation and Instruction Manual

HYTRONIK®

IP65 High Bay Dual Sense Sensor

HF and PIR, Daylight Harvest with Remote Control

HIM32

1. Technical Specifications

Product type	High bay dual sense sensor (daylight harvest)
Operating voltage	220–240VAC 50/60Hz
Rated load	800VA(Capacitive), 1000W(Resistive)
Stand-by power	< 1W
Detection angle	360°
Detection area (Max.)*	Max installation height : 15m (forklift) / 12m (human) Max detection range : HF: Ø = 24m (forklift) / 14m (human) PIR: Ø = 24m (forklift) / 20m (human)
Max withstandable in-rush current	80A@160μs
Warming-up	30s
Operation temperature	-20°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

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

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%	50Lux
2	100%	5min	10min	10%	50Lux
3	100%	5min	+∞	10%	75Lux
4	100%	5min	+∞	10%	100Lux
5	100%	5min	+∞	30%	200Lux
6	100%	10min	30min	10%	50Lux
7	100%	10min	+∞	10%	75Lux
8	100%	10min	+∞	10%	100Lux
9	100%	10min	+∞	30%	200Lux
A	100%	20min	1h	10%	100Lux
B	100%	20min	+∞	30%	200Lux
C	100%	30min	+∞	10%	100Lux
D	100%	30min	+∞	30%	200Lux
E	100%	30min	+∞	50%	400Lux
F	100%	5s	10s	10%	100Lux

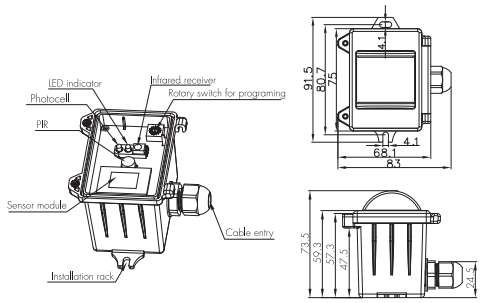
Note: settings can also be changed by remote control HRC-11. The last action controls.

3. Installation

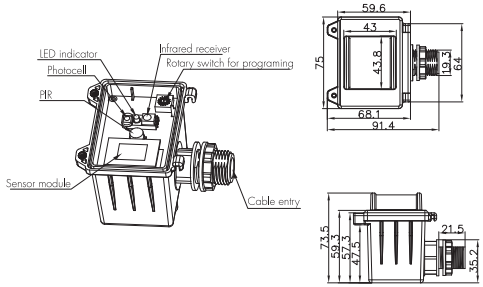
⚠ **Warnings:**

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.

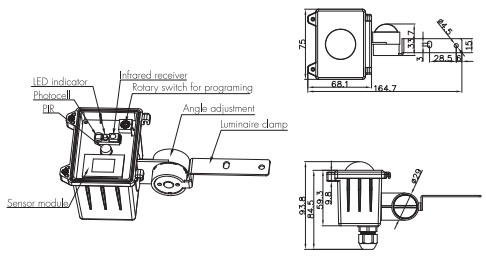
A. Ceiling mount



B. Screw to the Luminaire by conduit



C. Attach to the shade by clamp



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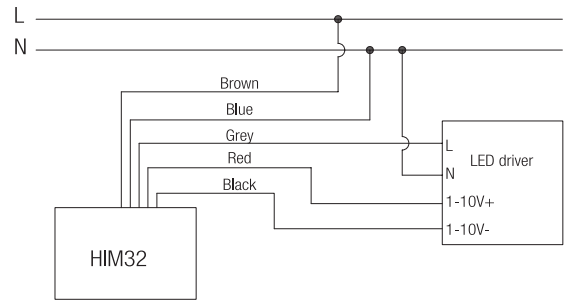
4. Wiring Diagram

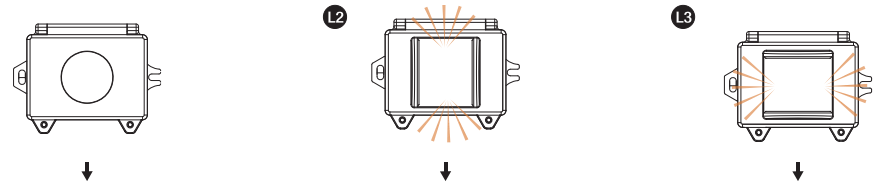


———This product should be installed by a qualified electrician.

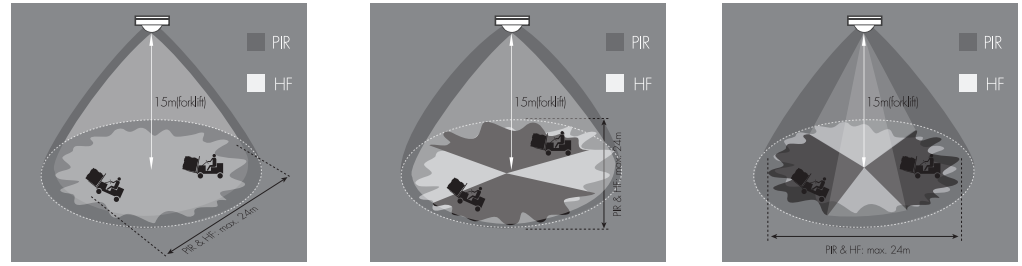
5. Three Options for PIR Lens and Detection Patterns

End user can choose the suitable PIR lens in real application to fulfill various requirements. Three options are offered for selection:

L1 L2 L3



Detection pattern for forklift

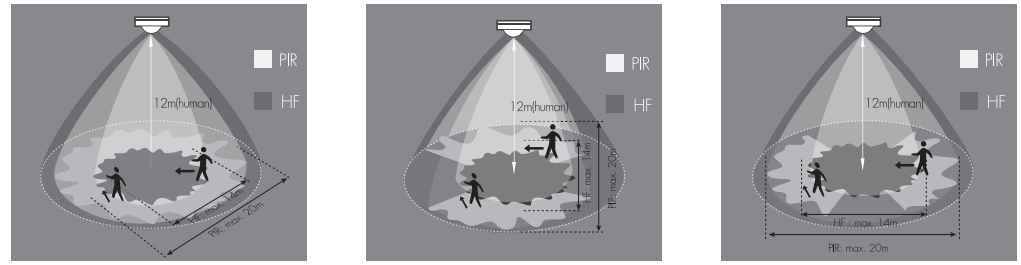


PIR detection: Ø = 24m (max.)
HF detection: Ø = 24m (max.)

PIR detection: Ø = 24m (max.)
HF detection: Ø = 24m (max.)

PIR detection: Ø = 24m (max.)
HF detection: Ø = 24m (max.)

Detection pattern for human



HF detection: Ø = 14m (max.)
PIR detection: Ø = 20m (max.)

HF detection: Ø = 14m (max.)
PIR detection: Ø = 20m (max.)

HF detection: Ø = 14m (max.)
PIR detection: Ø = 20m (max.)

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

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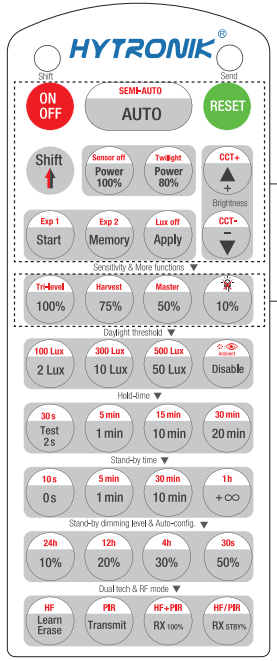
6. Descriptions of the Button Functions (remote control HRC-11)

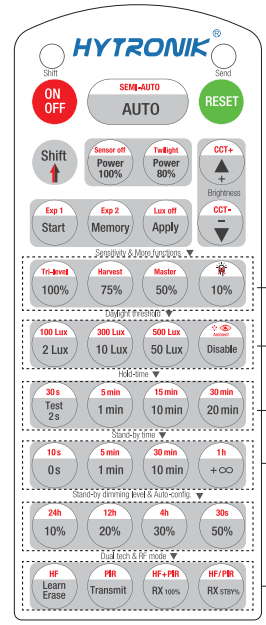


HRC-11

ON OFF	Press button "ON/OFF" to select permanent ON or permanent OFF mode. * Press button "AUTO"/ "RESET" to exit this mode. Note: After a power failure, the unit will default to AUTO mode upon power restoration
RESET	Press the "RESET" button to apply the latest DIP/rotary switch settings for models equipped with hardware switches, or to restore factory default parameters for models without hardware switches. Factory defaults: Auto mode; Detection range 100%; Hold-time 5min; Stand-by time +∞; Stand-by dimming level 10%; Daylight threshold 100 Lux; HF/PIR detection mode.
Shift	Press the "Shift" button to activate the secondary function layer. The LED at the top left corner lights up to indicate mode selection. While the LED is on (20 seconds), all buttons marked in red are enabled and can be selected.
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 the buttons in the "Power" zone to select 80% or 100% light output. Selecting 80% output may help optimize system efficiency during the early stage of installation, while 100% output can be applied when higher luminous performance is required over time.
Sensor off	1. Press button "Shift", the red LED on. 2. Press button "Sensor off", the function of movement detection is disabled, the function of photocell is also disabled.
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 button is not applicable to this product. The LUX OFF function is enabled by default and cannot be disabled. During both T1 and T2 periods, the sensor continuously monitors the ambient light level: If the ambient light level exceeds the preset LUX value for 5 minutes during T1, the product will automatically switch OFF. If the ambient light level exceeds the preset LUX value for 5 minutes during T2, the product will also automatically switch OFF. When T2 is set to infinity (∞), the product will not switch OFF automatically even if the ambient light level exceeds the preset LUX value. Instead, the light will dim to the minimum level.
Exp 1 Exp 2	"Exp" refer to Expansion, these two buttons are reserved functions and pending future development.

7. 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



HRC-11

Sensitivity & More functions	
100% 75% 50% 10%	In AUTO /SEMI-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.
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 30 s 1 min 5 min 10 min 15 min 20 min 30 min	In AUTO /SEMI-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 10 s 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. "+∞" indicates bi-level control. In this mode, the fixture turns 100% on when motion is detected and switches to the stand-by dimming level after the motion hold-time if no presence is detected. During this state, the Lux-off function is deactivated. The light will only turn on when the motion sensor is triggered if the ambient lux level is below the set daylight threshold.*
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	1.Press button "Shift" ,the red LED on. 2.Select a time period and the sensor will do light level measurement and determine/save the lowest light level (commission line) with 100% light on, so as to set the target lux level automatically. *Note:1.Make sure the light level measurement covers the night time.* *2.The fixture will go into sensor mode after the measurement, all sensor setting remain unchanged.*
Dual tech & RF mode	
Learn Erase	This key is not appliable on this product.
Transmit	This key is not appliable on this product.
HF PIR HF+PIR HF/PIR	1.Press button "Shift" ,the red LED on. 2. Choose one of the four detecion mode "HF only", "PIR only", "HF& PIR" or" HF/PIR".

8. Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to https://hytronik.com/product/him32
2. Regarding precautions for Microwave sensor installation and operation, please kindly refer to https://hytronik.com/service/downloads （Microwave Sensors Precautions for Product Installation and Operation）
3. Regarding precautions for PIR sensors installation and operation, please kindly refer to https://hytronik.com/service/downloads （PIR Sensors Precautions for Product Installation and Operation）
4. Data sheet is subject to change without notice. Please always refer to the most recent release on https://hytronik.com/products/motion-daylight-sensors
5. Regarding Hytronik standard guarantee policy, please kindly refer to https://hytronik.com/service/downloads （Guarantee Conditions document）