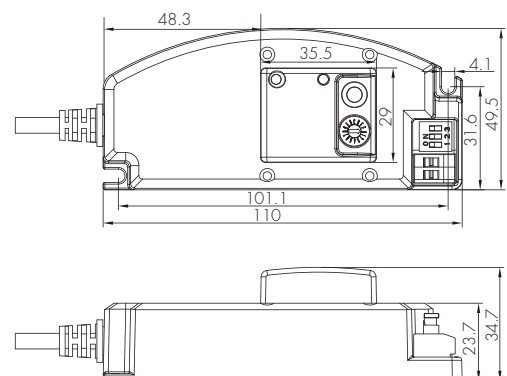
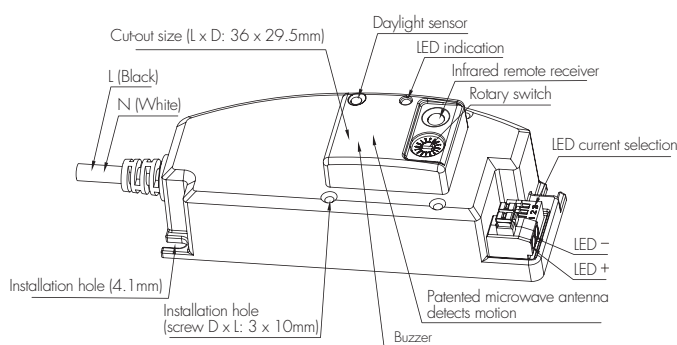
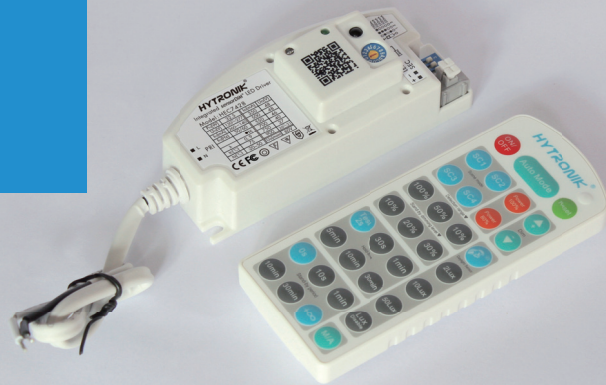


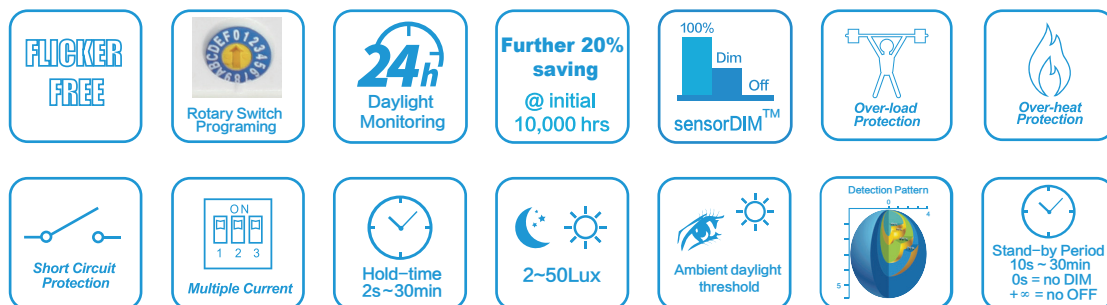
Integrated LED Sensor-Driver

Model: HEC7428 with HRC-05



Model: HEC7428

Mechanical structure (unit: mm)

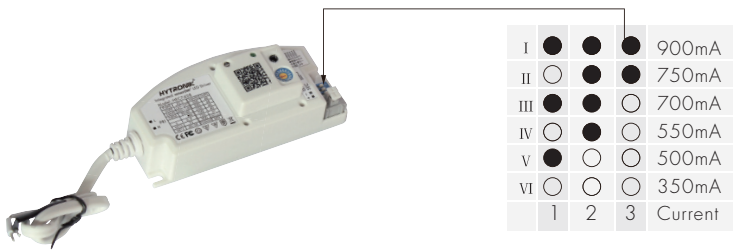


Hytronik's integrated LED Driver-Sensor provides a cost effective solution by combining a remote controlled intelligent HF (microwave) occupancy sensor with a selectable constant current LED driver. HEC7428 supports easy installation options, with board surface-mount and through-board. Driver provides up to 28W output while integrated sensor provides remote control programming for distributed, intelligent lighting control of: daylight monitoring, hold-time, stand-by time, dim level, as well as, maximum light output.

Product Functions and Features

- 1 Daylight monitoring function with threshold control (smart photocell function)
- 2 Tri-level control (corridor function)

3 LED current selections



The current can be easily configured by choosing the correct combination of the DIP switches (see table on the left).

4 LED maximum Load and voltage

This multiple current LED driver has a wide range of loading capacity:

Maximum load @ different currents:	3.5~17W (350mA)	5~24W (500mA)	5.5~25W (550mA)
	7~28W (700mA)	7~28W (750mA)	9~28W (900mA)

Maximum voltage @ different currents:	10~48V (350mA)	10~48V (500mA)	10~46V (550mA)
	10~40V (700mA)	10~37V (750mA)	10~31V (900mA@277VAC)/10~26V (900mA@120VAC)

Settings (Rotary Switch on Sensor Antenna)

Instead of the DIP switches, HEC7428 provides easy configuration selection by the rotary switch. Total 16 settings / combinations will meet different requirements in real application:

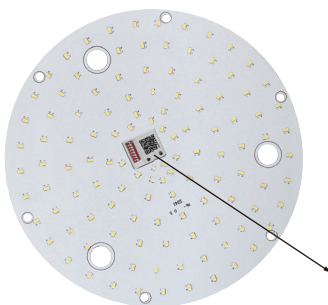
Setting	Detection range	Hold-time	Daylight sensor	Stand-by period	Stand-by dimming level
0	100%	5s	Disable	10s	10%
1	100%	30s	2Lux	1min	10%
2	100%	1min	2Lux	5min	10%
3	100%	1min	10Lux	10min	10%
4	100%	1min	Disable	+∞	10%
5	100%	5min	2Lux	10min	10%
6	100%	5min	10Lux	30min	10%
7	100%	5min	Disable	+∞	10%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



Note: end-user can also scan the QR code on the housing for rotary settings.

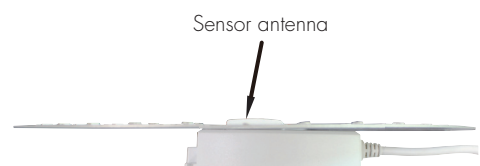
Note: See Remote Control next page for options to over-write any/all individual attribute after rotary dial selects closest combination settings.

Assembly



The sensor antenna features the rotary switch or DIP switches and protrudes the LED panel. This feature enables the end user to access the sensor settings without removing the junction box / LED board.

The QR code links the installer to the user manual on the on-line user guide to check the detail of settings (program).



Cutout size: 36 x 29.5 (mm)

Settings (Remote Control HRC-05)



Permanent ON/OFF function

Press the "ON/OFF" button, the light goes to permanent on or permanent off mode, sensor is disabled.

* Press "Auto Mode", "RESET" or "Scene mode" buttons to quit from this mode.



Sensor mode

Press "Auto Mode" button, the sensor starts to work and all settings remain the same as the latest status before the light was switched on/off.



Reset function

Press "RESET" button, all settings go back to the value of rotary switch.



Dim +/-

Long press "Dim +" or "Dim -" to adjust the light brightness between 10%~100% during hold-time. "+" means dimming up, "-" means dimming down.



Test mode

The button "Test 2s" is for testing purpose only. The sensor goes to test mode (hold-time is 2s) automatically after commissioning, meanwhile the stand-by period and daylight sensor are disabled.

* This mode can be ended by pressing "reset", or any button of "scene mode" and "hold time". The sensor setting is changed accordingly.



Power output

Press these buttons to select full output level. 80% button allows for energy saving and reverse dimming to compensate for LED lumen depreciation over time. Supports fluorescent 10,000 hr initial burn-in.



Lux disable

Press this button to disable the daylight sensor for threshold control. When motion is detected, the fixture will always turn ON, regardless of ambient light level.



Ambient daylight threshold

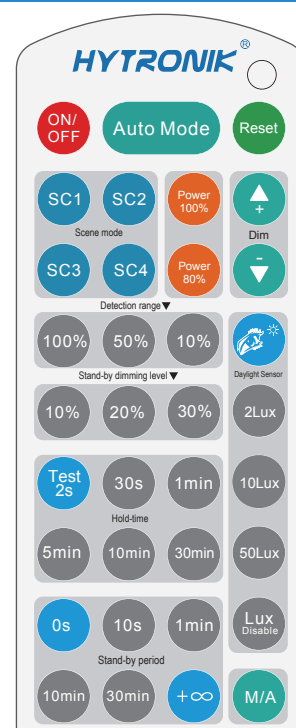
Press this button, the latest surrounding lux value overwrites previous lux value learned, and is set as the daylight threshold. This feature enables the fixture to function well in any real application circumstance.

Scene mode

There are four scene modes fixed programs built-into the remote control. Select as appropriate. Each scene can be modified using the remote. The sensor will remember updates even after power outage. The green "RESET" button on remote reverts to original defaults.

Scene options	Detection range	Hold-time	Stand-by period	Stand-by dimming level	Daylight sensor
SC1	100%	1min	10min	10%	2Lux
SC2	100%	5min	10min	10%	2Lux
SC3	100%	10min	30min	10%	10Lux
SC4	100%	10min	+∞	10%	50Lux

Note: end-user can adjust the settings by pressing buttons of detection range/hold-time/stand-by period/stand-by dimming level/daylight sensor. The last programmed setting are remembered, even after loss of power.



HRC-05

Note: The buzzer beeps one time when RC receives signal successfully.

Detection range

Select as appropriate to adjust/reduce sensor sensitivity, detection range from 100%.
Typical 100% sensor motion detection range is 9m. Please refer to detection pattern below.

Hold-time

Hold-time is time fixture remains at programmed full power level AFTER no motion is detected.

Daylight sensor

Select daylight sensor threshold level at 2 LUX / 10Lux / 50LUX. Ambient light must below this LUX threshold for sensor to turn fixture ON.
Press Blue button to sample ambient light. Press Lux Disable button for fixture to always turn On when motion is detected.

Stand-by period (tri-level control)

Press the buttons of "stand-by period" to set stand-by period at 0s / 10s / 1min / 10min / 30min / $+\infty$.

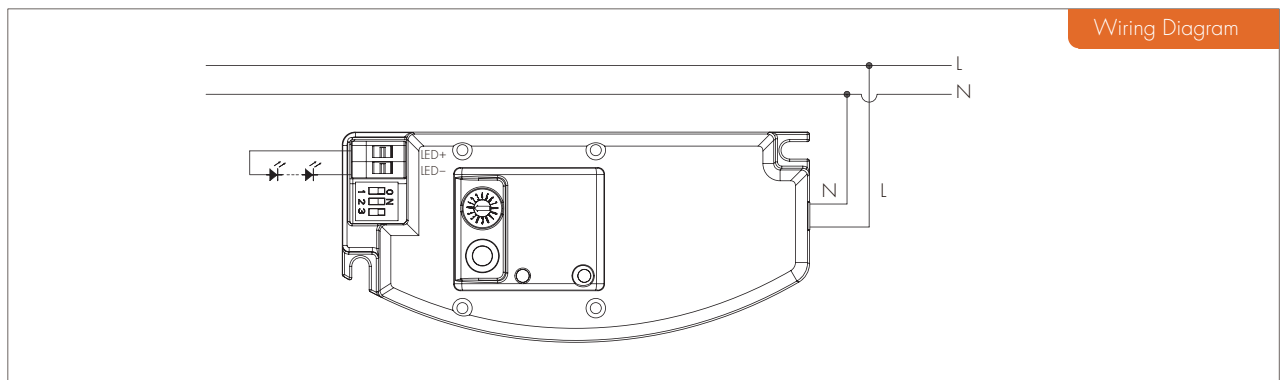
Note: "0s" means on/off control; " $+\infty$ " means bi-level control, light never switches off when daylight sensor is disabled.

Stand-by dimming level

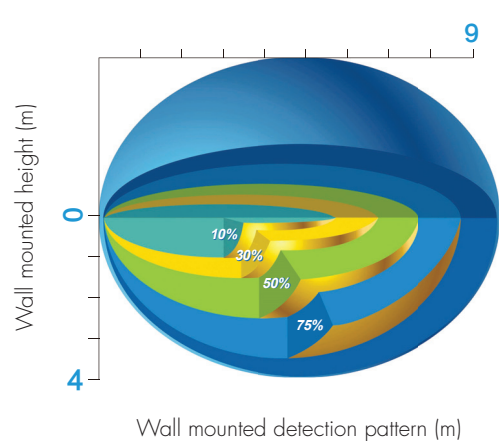
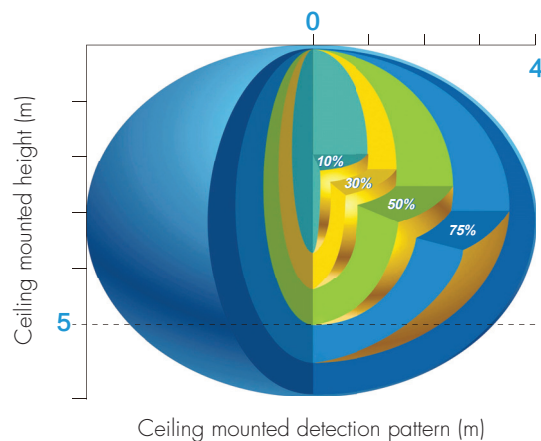
Press the buttons of "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30%.

M/A Manual Override / Absence Detection

Button "M/A" is disabled.



Detection Pattern



Technical Data

Operating voltage	120-277Vac 50/60Hz		
Input current	0.26-0.14 A		
Input power	32.5W (Max.)		
Stand-by power	< 0.5W		
Warm time	20s		
Detection area	100% / 50% / 10% on RC		
Hold-time	TEST 2s / 30s / 1 min / 5min / 10min / 30min on RC		
Daylight threshold	2Lux / 10Lux / 50Lux / Lux disable, real-time sampling on RC		
Stand-by period	0s / 10s / 1 min / 10min / 30min / +∞ on RC		
Stand-by dimming level	10% / 20% / 30% on RC		
HF (microwave) frequency	5.8GHz+/-75MHz		
HF (microwave) power	<0.2mW		
Detection range	Max. (ØxH): 8m x 5m		
Detection angle	30°~150°		
Mounting height	Max. 5m		
Output LED current	350mA/500mA/550mA/700mA/750mA/900mA		
Output LED voltage	10~48V (350mA)	10~48V (500mA)	10~46V (550mA)
	10~40V (700mA)	10~37V (750mA)	10~31V (900mA@277V) / 10~26V (900mA@120V)
Output LED power	3.5~17W (350mA)	5~24W (500mA)	5.5~25W (550mA)
	7~28W (700mA)	7~28W (750mA)	9~28W (900mA@277V) / 9~23W (900mA@120V)
Empty load voltage	60V		
Power factor	≥0.9		
Efficiency	85% (Max.)		
Operating temperature	-20°C ~ +50°C TC:75°C		
Abnormal protection	Output short-circuit protection with auto-reset		
EMC standard	Part 15B		
Safety standard	UL8750		
Certification	cULus listed, FCC		
Dielectric strength	Input→output:3750Vac /5mA/1 min		
Max. case temperature (Tc)	75°C		
IP rating	IP20		