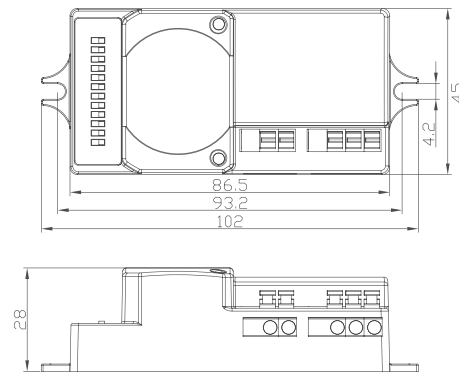
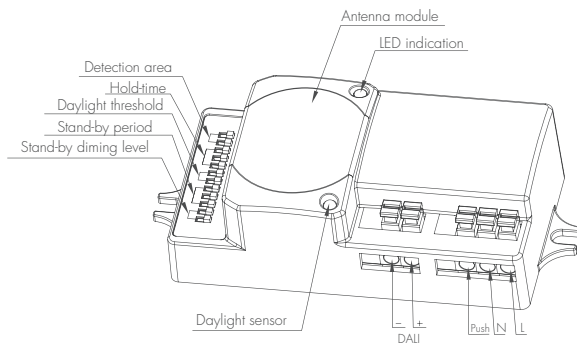
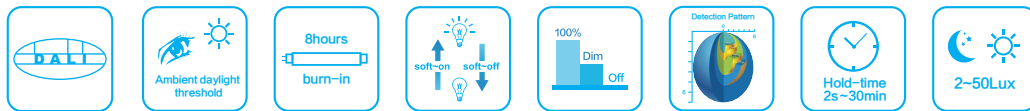


# Independant DALI Sensor

Model: HCD418



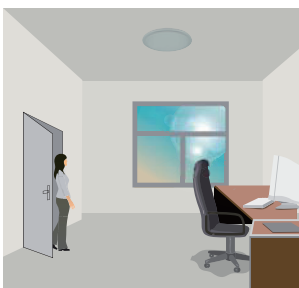
1-10V ballast/driver is being replaced by DALI ballast/driver. This sensor contains a DALI power supply circuit, which gives DALI output to the driver to carry out the sensor on/off and dimming command.



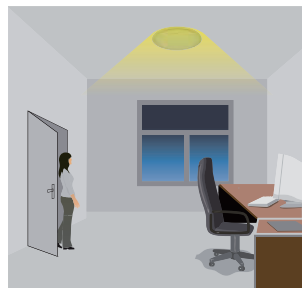
## Function and Options

### 1 3 Steps Dimming Control (Corridor Function)

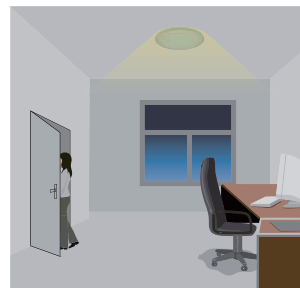
Same as Tridonic excel ballast, Hytronik builds this function inside the motion sensor to achieve 3 steps dimming control, for some areas require a light change notice before switch-off. It offers 3 levels of light: 100%-->dimmed light (5%, 10%, 20%, 50% optional)-->off; and 2 periods of selectable waiting time: motion holdtime and stand-by period; selectable daylight threshold and choice of detection area.



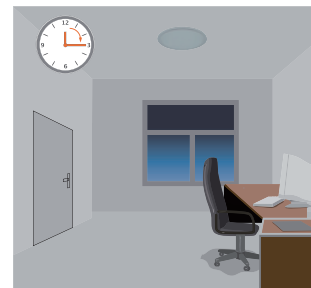
With sufficient natural light, the light does not switch on when presence detected.



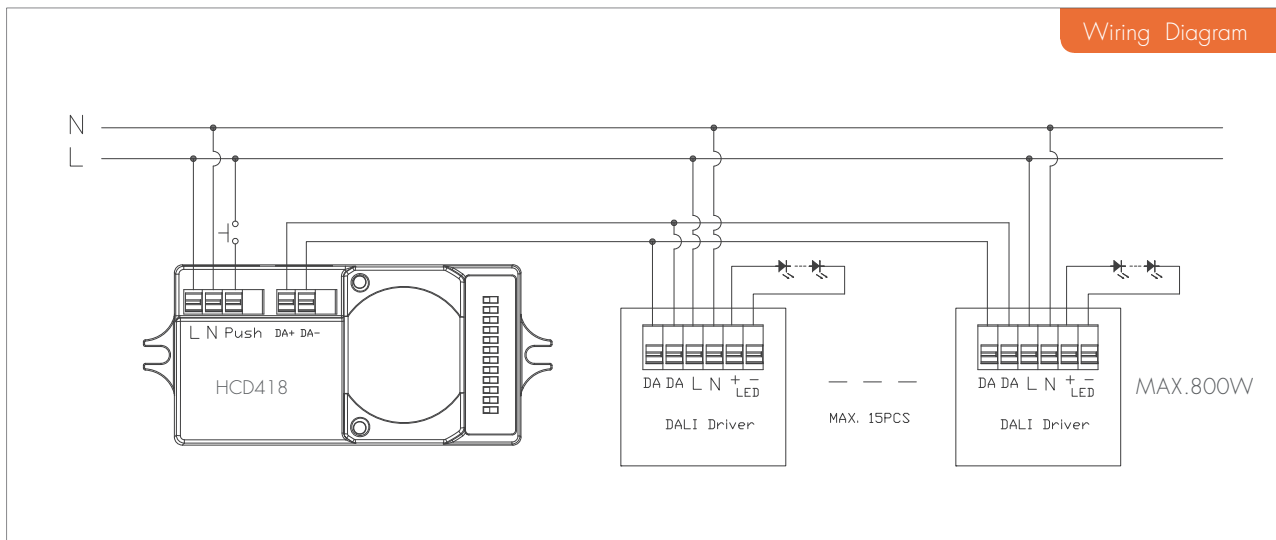
With sufficient natural light, the sensor switches on the light automatically when person enters the room.



People left, light dims to 5%, 10%, 20%, 50% (optional) stand-by level after the hold-time.



Light switches off automatically after the stand-by period elapsed.



## 2 8H manual on mode for LED lamp

With simple operation, rapidly turn off/on the fixture 3 cycles within 3 sec. (the green LED on the sensor flashes and the fixture blinks 3 times to indicate the success of setup), lamp will be 100% on for 8 hours, and then automatically goes to sensor mode after 8 hours. Useful when sensor function is not needed in special occasion.

This 8H manual on feature can be cancelled by turning off/on the fixture 1 cycle within 1 sec.

## 3 Ambient daylight threshold

With simple operation, rapidly turn off/on the fixture 2 cycles within 2 sec:

1. The green LED on the sensor flashes slowly for 5 seconds, meanwhile the fixture blinks twice.
2. The daylight sensor measures and remembers the surrounding lux for 1 sec.
3. The fixture and green LED is on for 10s to indicate the success of learning.

- \* This feature enables the fixture to function well in any real application circumstance, where the daylight penetrated into fixture may vary a lot.
- \* The latest surrounding lux value overwrites previous lux value learned.
- \* Both the settings on DIP switch and the learned ambient lux threshold can overwrite each other. The latest action stays in validity.

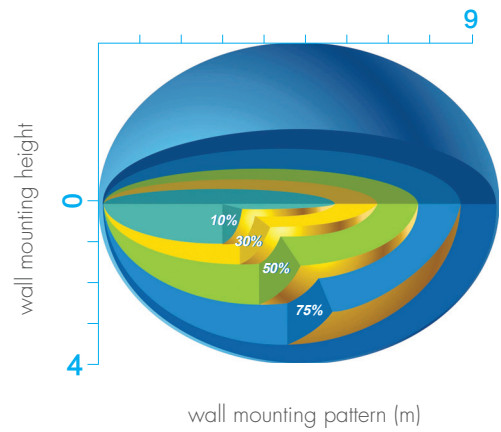
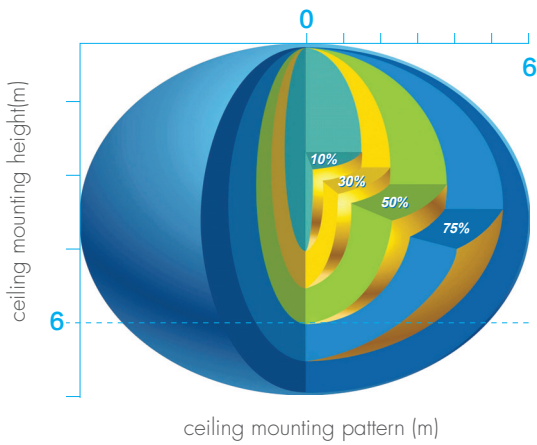
## 4 Manual override

This sensor reserved the access of manual override function for end-users to switch on/off, or adjust the stand-by dimming level with the push-switch. Which makes the product more user-friendly and more options to fit for some extra-ordinary demands.

- \* Short push (<1s): On/off;
  - ON → OFF: The light turns off immediately and can not be lighten for a certain time (equals to hold time preset) even movement is detected. After this period, the sensor goes to auto sensor mode.
  - OFF → ON: The light turns on 100% and goes to sensor mode, even when ambient LUX level exceeds the daylight threshold.
- \* Long push (>1s): Dim up/down the stand-by dimming level between 10% and 50%. Both the settings on DIP switch and manual override can overwrite each other, the latest action stays in validity.
- \* If customers do not want to have this manual override function, we can just leave this "push" terminal alone, not connected to any wire.

Note: Motion sensor overrides daylight sensor, meaning the daylight sensor starts to check the ambient natural light only when the lamp is switched off (motion holdtime elapsed).

## Detection Pattern



## Settings

### 1 Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	
I	●	●	100 %
II	●	○	75 %
III	○	●	50 %
IV	○	○	10 %



I – 100%  
II – 75%  
III – 50%  
IV – 10%

### 2 Hold-time

Hold-time means the time period you would like to keep the lamp on 100% after the person has left the detection area.

	1	2	3	
I	●	●	●	Test
II	●	●	○	30s
III	●	○	●	1min
IV	●	○	○	5min
V	○	●	●	10min
VI	○	●	○	20min
VII	○	○	○	30min



I – Test  
II – 30s  
III – 1min  
IV – 5min  
V – 10min  
VI – 20min  
VII – 30min

### 3 Daylight sensor

The daylight threshold can be set on DIP switches, to fit for particular application.

	1	2	
I	●	●	Disable
II	●	○	50Lux
III	○	●	10Lux
IV	○	○	2 Lux



I – Disable  
II – 50Lux  
III – 10Lux  
IV – 2Lux

### 4 Stand-by period (corridor function)

This is the time period you would like to keep at the low light output level before it is completely switched off in the long absence of people.

Note: "0s" means on/off control;  
"+∞" means 2 steps dimming control, fixture never switches off.

	1	2	3	
I	●	●	●	0s
II	●	●	○	10s
III	●	○	●	1min
IV	●	○	○	5min
V	○	●	●	10min
VI	○	●	○	30min
VII	○	○	●	1h
VIII	○	○	○	+∞



I – 0s  
II – 10s  
III – 1min  
IV – 5min  
V – 10min  
VI – 30min  
VII – 1h  
VIII – +∞

### 5 Stand-by dimming level

This is the dimmed low light output level you would like to have after the hold-time in the absence of people.

	1	2	
I	●	●	5%
II	●	○	10%
III	○	●	20%
IV	○	○	50%



I – 5%  
II – 10%  
III – 20%  
IV – 50%

Technical Data	
Operating voltage	120-277VAC
Switched power	Max. 15 devices; Max. 30mA
Standby power	< 1w
Warming-up time	20s
Detection area	10/50/75/100%, can be customized
Hold-time	2s/30s/1min/5min/10min/20min/30min, can be customized
Stand-by period	0s/10s/1min/5min/10min/30min/1h/+∞ can be customized
Stand-by dimming level	5%/10%/20%/50% can be customized
Daylight threshold	2~50lux, disable, can be customized
Microwave frequency	5.8GHz+/-75MHz
Microwave power	<0.2mw
Detection range	Max. (ØxH): 12m x 6m
Detection angle	30°~150°
Mounting height	Max. 6m
Operating temperature	-35°C ~ +70°C
IP rating	IP20 IP65(mounting in Hytronik special box)
Certificate	FCC, CE, ETL, R&TTE, SAA