

IP65 DALI PIR Motion Sensor (High-bay)

DALI Bolt-on/Batten-fit PIR Sensor, Daylight Harvest

Product Description

PIR9 is a DALI high-bay PIR motion sensor, with capability of up to 15m installation height. PIR9 has a daylight sensor built-in, and is specifically designed for mounting onto a batten style luminaire. All sensor parameters can be programmed through remote controller PROGRAMMER1



Features



30mA DALI Broadcast output



Daylight Harvest



IP65



Fixing washers accessory



High-bay (up to 15m height)



Remote controllable



5-year warranty, designed for long lifetime up to 50,000 hours

Technical Specifications

Input Characteristics

| | |
|-------------------|-------------------------------|
| Operating voltage | 220 ~ 240VAC 50/60Hz |
| Stand-by power | <0.5W |
| Output | 30mA, 16VDC (max. 15 devices) |
| Warming-up | 30s |

Sensor Data

| Sensor principle | PIR detection |
|------------------|---|
| Detection range* | Max installation height: 15m (forklift) |
| | 12m (single person) |
| | Max detection range: 16m (diameter) |
| Detection angle | 360° |

* The detection range is heavily influenced by sensor placement (angle) and different walking paces. It may be reduced under certain conditions.

Safety and EMC

| | |
|-----------------------|--------------------------------------|
| EMC standard (EMC) | EN55015, EN61547 EN61000-3-21-3-3 |
| Safety standard (LVD) | EN61347-1, EN61347-2-11 |
| Certification | ENEC, CE, EMC, LVD, RCM |

Environment

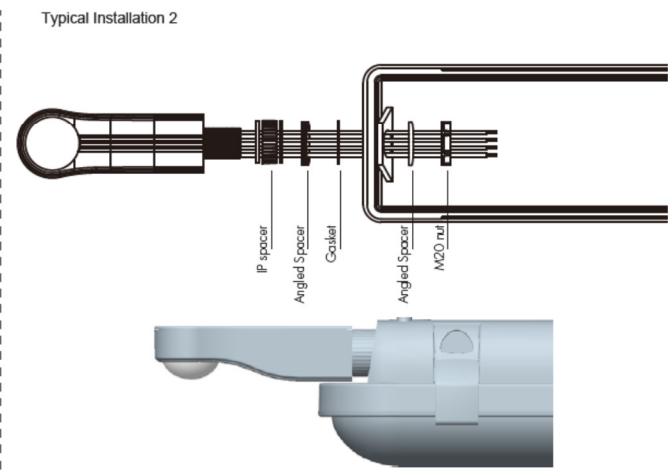
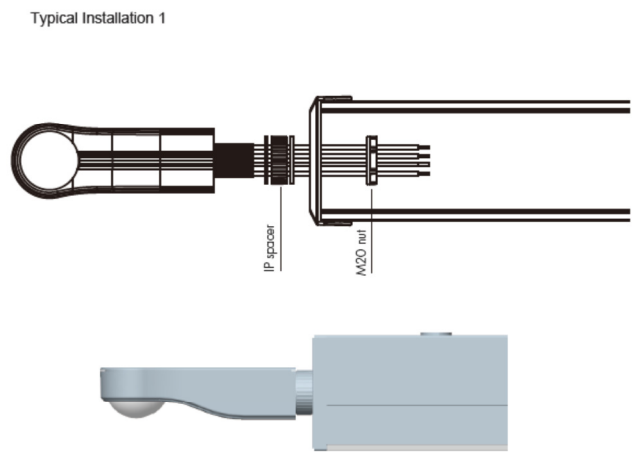
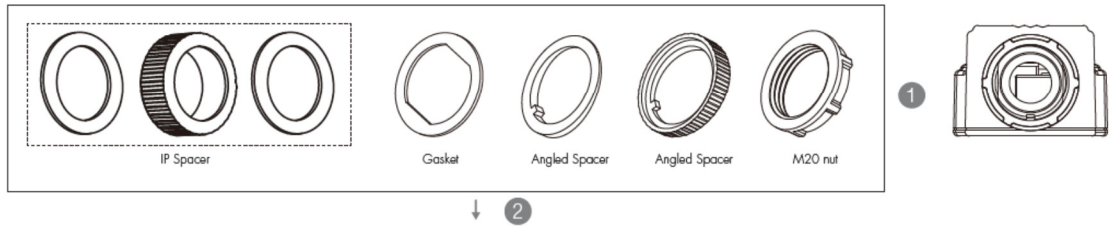
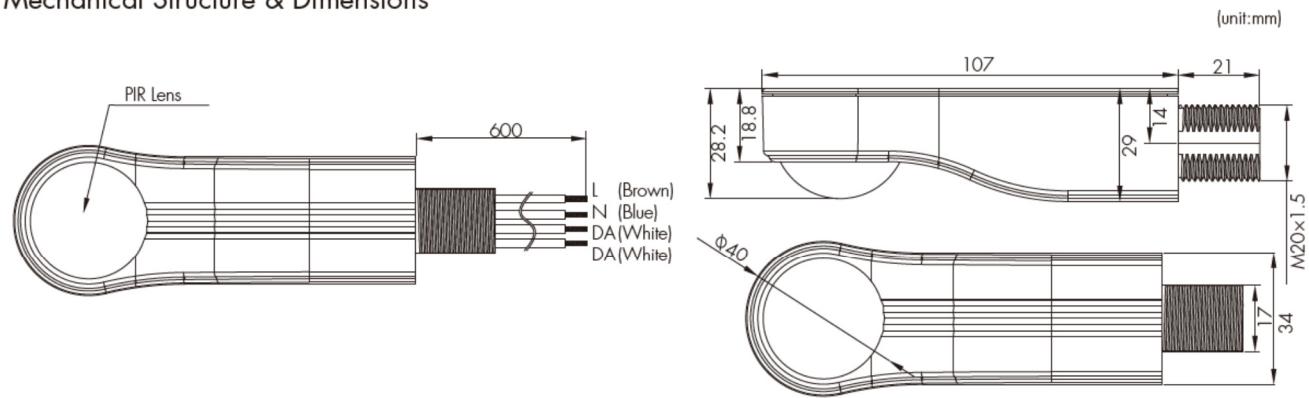
| | |
|------------------------|--------------------|
| Operation temperature* | Ta: -35°C* ~ +50°C |
| IP rating | IP65 |

* When used in -35°C ~ -20°C environment, the sensor still functions but the detection range & life-span would be compromised. The optimal Ta would be -20°C ~ +50°C and we apply 5-year guarantee for such usage condition.

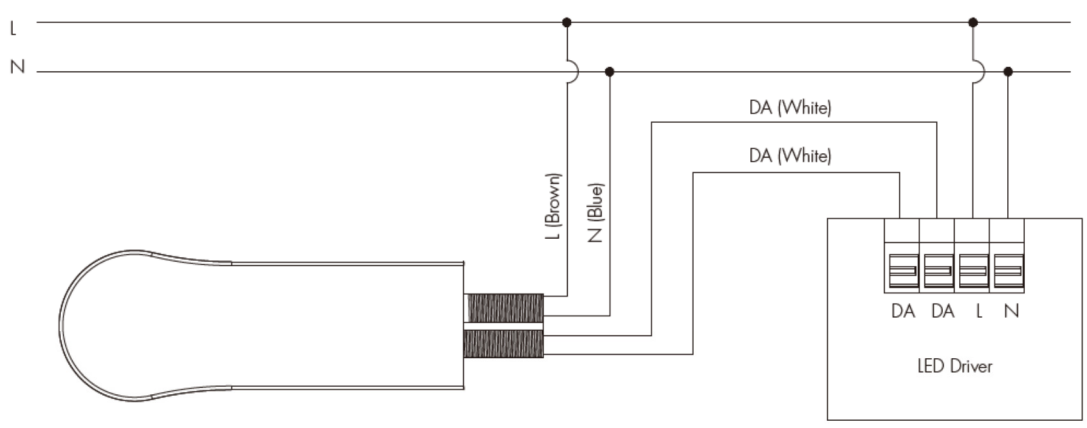


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Mechanical Structure & Dimensions



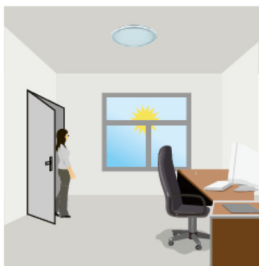
Wiring Diagram



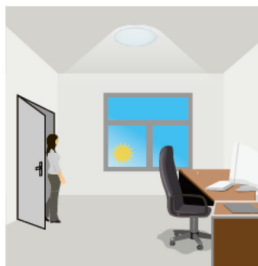
- 1. 200 metres (total) max. for 1mm² CSA (Ta = 50°C)
- 2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50°C)

Functions and Features

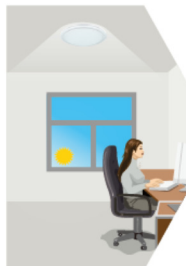
Daylight Harvest



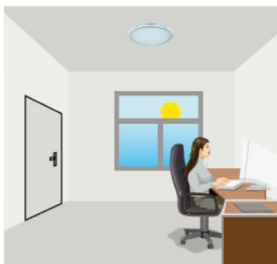
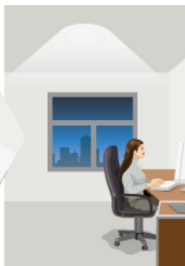
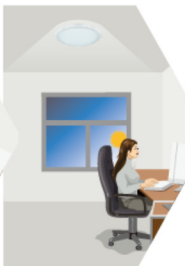
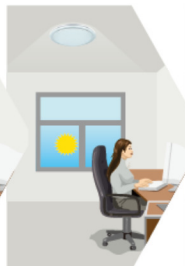
Light will not switch on when natural light is sufficient, even there is motion detected.



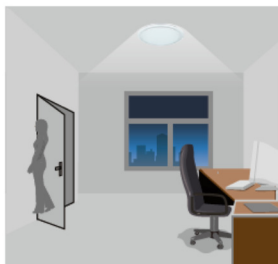
The light switches on automatically with presence when natural light is insufficient.



The light turns on at full or dims to maintain the lux level. The light output regulates according to the level of natural light available.



The light switches off when the ambient natural light is sufficient.

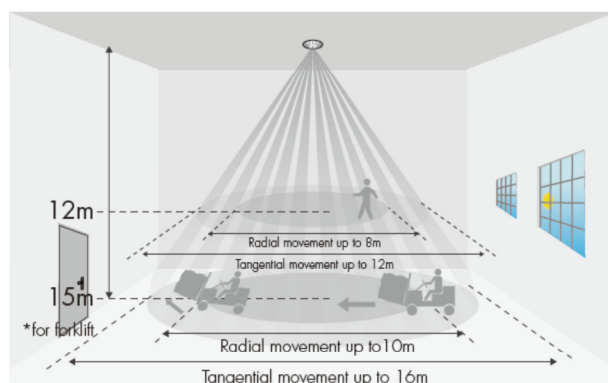


The light dims to stand-by period after hold-time and stays on selected minimum dimming level.



The light switches off completely after the stand-by period.

Detection Pattern



*The detection patterns are based upon 5km/h movement speed.

Settings (Remote Control HRC-11)



Permanent ON/OFF function

Press button "ON/OFF" to select permanent ON or permanent OFF mode.

* Press button "AUTO", "RESET" to quit this mode.

The mode will change to AUTO Mode after power failure.



Reset Settings

Press button "RESET", all settings go back to factory default settings.

Hold-time: 5min; Stand-by period: 10min; Stand-by dimming level: 20%; Lux disabled



Shift Button

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 mode

Press button "AUTO" to initiate automatic mode. The sensor starts working and all settings remain as before the light is switched ON/OFF.

Note: the function of Semi-auto is disabled.



Scene program - 1-key commissioning

1. Press button "Start" to program.
2. Select the buttons in "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 daylight threshold Disable, hold-time 5min, stand-by time +∞, stand-by dimming level 30%, the steps should be:

Press button "Start", button "Disable", "Shift", "5min", "Shift", "+∞", "30%", "Memory". By pointing to the sensor unit(s) and pressing "Apply", all settings are passed on the sensor(s).

Daylight threshold

Press buttons in zone "Daylight threshold" to set daylight sensor at 2Lux / 10Lux / 50Lux / 100Lux / 300Lux / 500Lux or Disable.

Ambient daylight threshold

1. Press button "Shift", the red LED starts to flash.
2. Press button "Ambient", the surrounding lux level is sampled and set as the new daylight threshold.

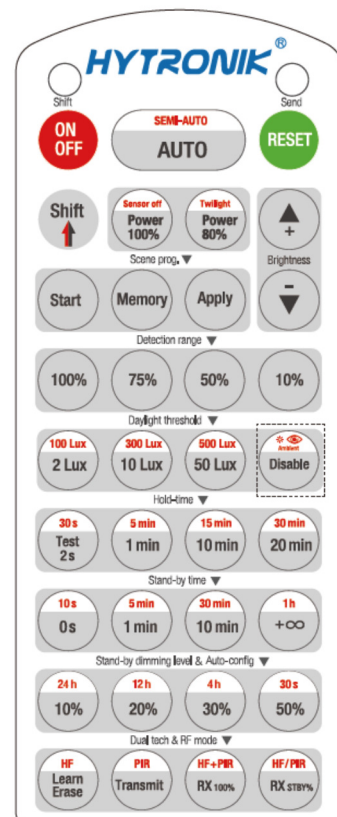
Hold-time

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".



HRC-11

Load Indication:

The light will flash ONCE rapidly after receiving the command from the remote control successfully.

Stand-by time (corridor function)

Press buttons in zone "stand-by time" to set the stand-by period at 0s / 10s / 1 min / 5min / 10min / 30min / 1h / +∞.

Note: "0s" means on/off control; "+∞" 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.

Stand-by dimming level

Press the button in zone "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30% / 50%.

Daylight harvest auto-configuration function

1. Press button "Shift", the red LED starts to flash.

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 settings remain unchanged.

Additional Information / Documents

1. Regarding precautions for PIR sensor installation and operation, please kindly refer to [www.hytronik.com/download->knowledge->PIR Sensors - Precautions for Product Installation and Operation](http://www.hytronik.com/download->knowledge->PIR%20Sensors%20-%20Precautions%20for%20Product%20Installation%20and%20Operation)
2. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/Motion Sensors ->Stand-alone Sensor](http://www.hytronik.com/products/Motion%20Sensors->Stand-alone%20Sensor)
3. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download->knowledge->Hytronik Standard Guarantee Policy](http://www.hytronik.com/download->knowledge->Hytronik%20Standard%20Guarantee%20Policy)