Multi-Directional PIR Sensor

HIR28/AA
On/Off control

HYTRONIK ®

Product Description

HIR28/AA is a PIR standalone motion sensor, with on/off realy control. It is designed with a metal surface mount box and the detection angle is adjustable by needs. HIR28/AA is ideal for typical indoor applications such as offices, classrooms, healthcare, and other commercial areas (corridors and warehouses).

*RAL9016   *RAL9005

Around 70°

Features

Store settings in the remote for easy commissioning when programming multiple sensors.

1 Push inputs for flexible manual control

Black & White & Gray metal surface mount box option

User-friendly design for installation

5-year warranty

Technical Specifications

Input & Output Characteristics	
Operating voltage	220~240VAC 50/60Hz
Stand-by power	<0.5W
Output (Max.Loading)	400VA capacitive 800W resitive

Environment	
Operation temperature	Ta: -20°C ~ +50°C
Storage temperature	-35°C ~ +55°C
Relative humidity	20~90%
IP rating	IP20

Sensor Data	
Sensor Principle	PIR Detection
Ceiling-mounted	Installation Height : 3m Max. Detection Range : 15m *Sensor head angle set to 70°
Wall-mounted	Installation Height : 2.5m Max. Detection Range :13m
Detection angle	360°

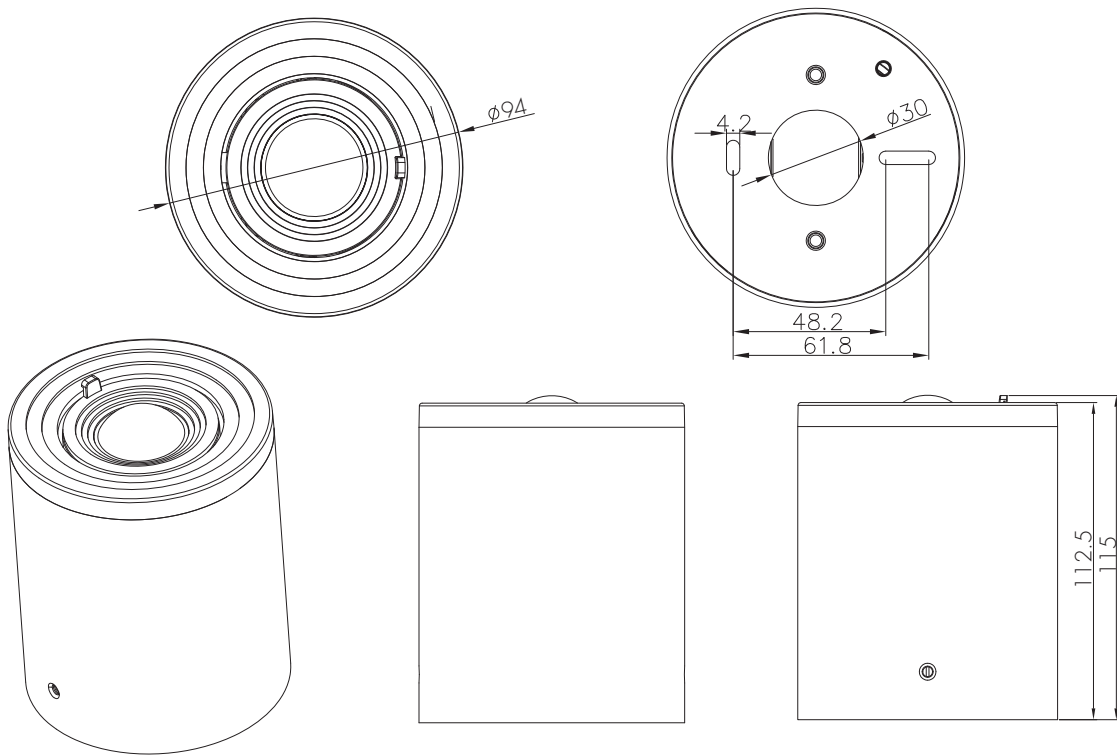* For more details of detection range, please refer to "detection pattern" section.
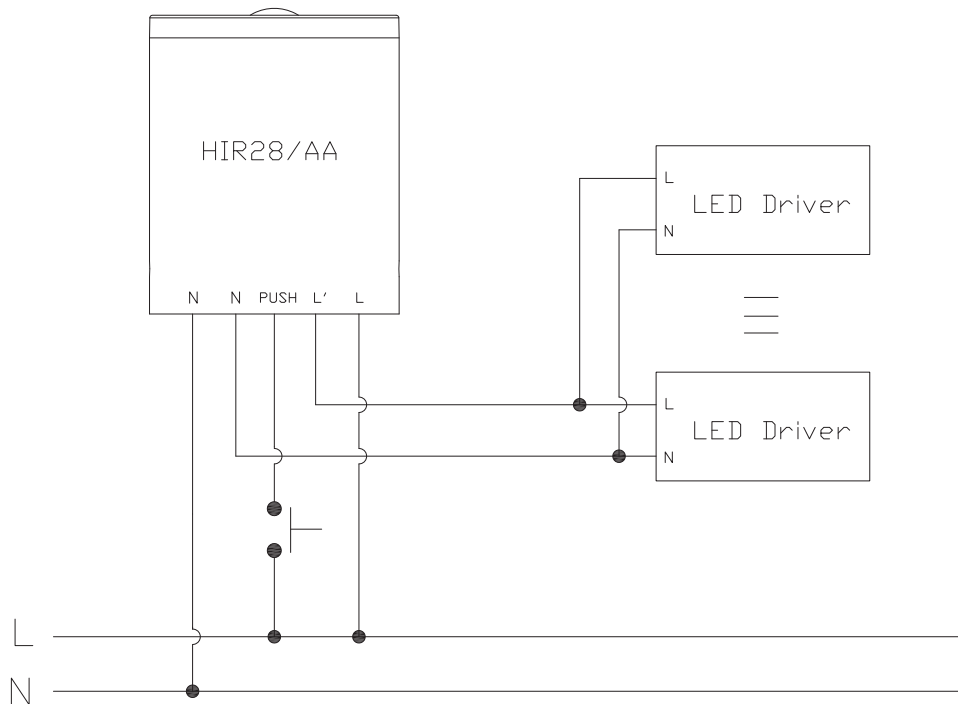
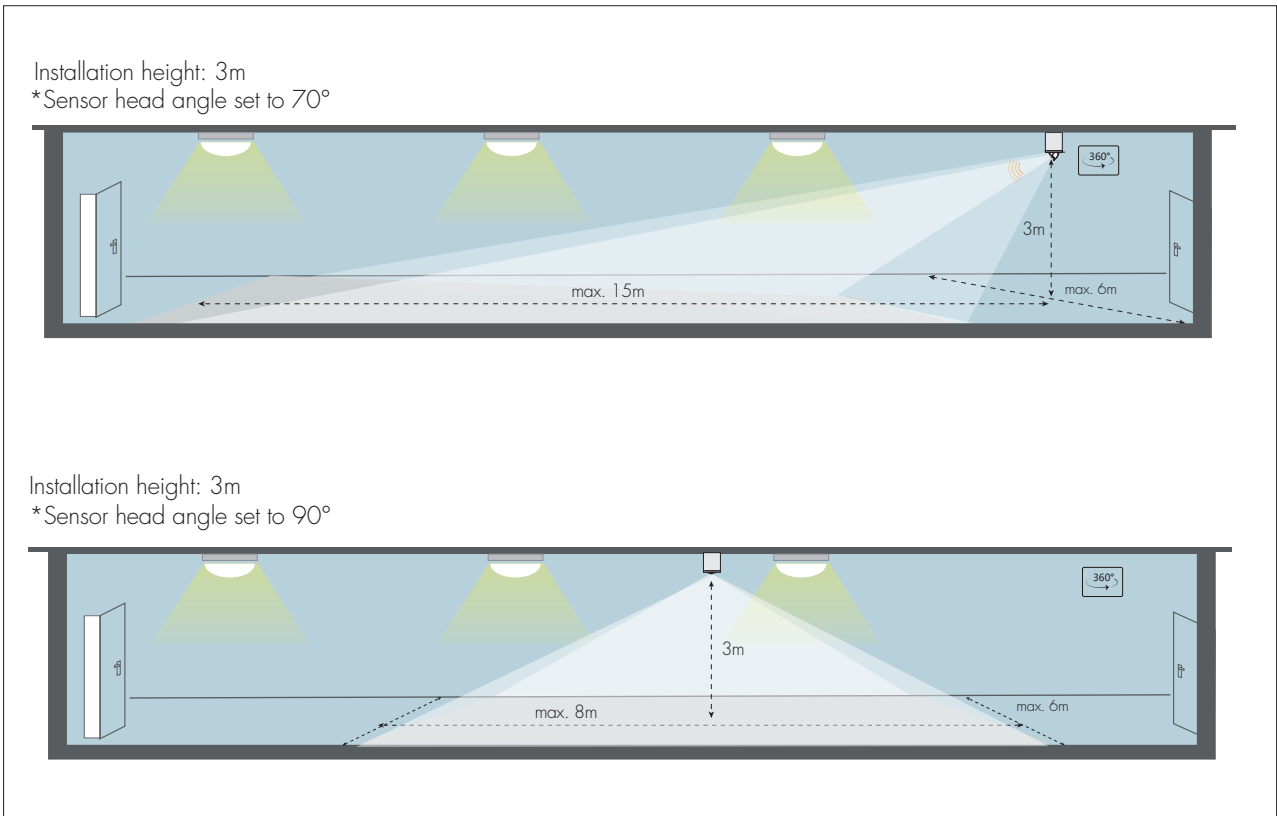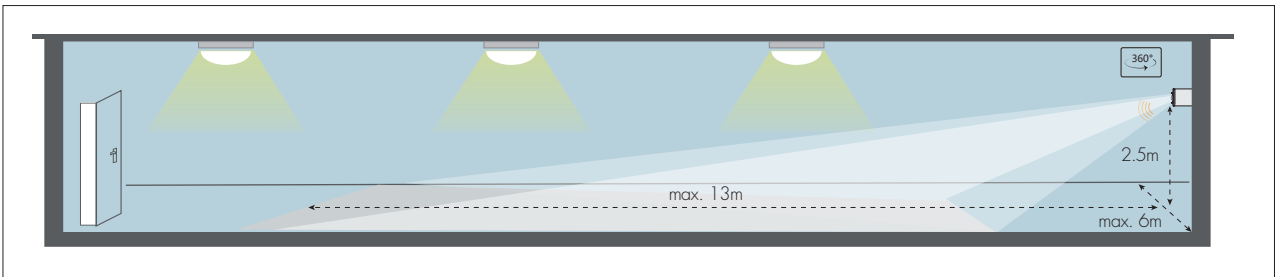| Safety & EMC	
EMC standard (EMC)	EN55015, EN61000-3-2/-3-3, EN61547
Safety standard (LVD)	EN60669-1, EN60669-2-1
Certification	CE, UKCA, RCM

Mechanical Structure & Dimensions

Ø94

4.2   Ø30

48.2
61.8

112.5
115

Wiring Diagram

HIR28/AA

N   N   PUSH   L'   L

L

LED Driver

L
N

LED Driver

L

N

Detection Pattern

Sensitivity set to maximum

Ceiling-mounted application

Installation height: 3m
*Sensor head angle set to 70°

360°

3m

max. 15m   max. 6m

Installation height: 3m
*Sensor head angle set to 90°

360°

3m

max. 8m   max. 6m

Wall-mounted application
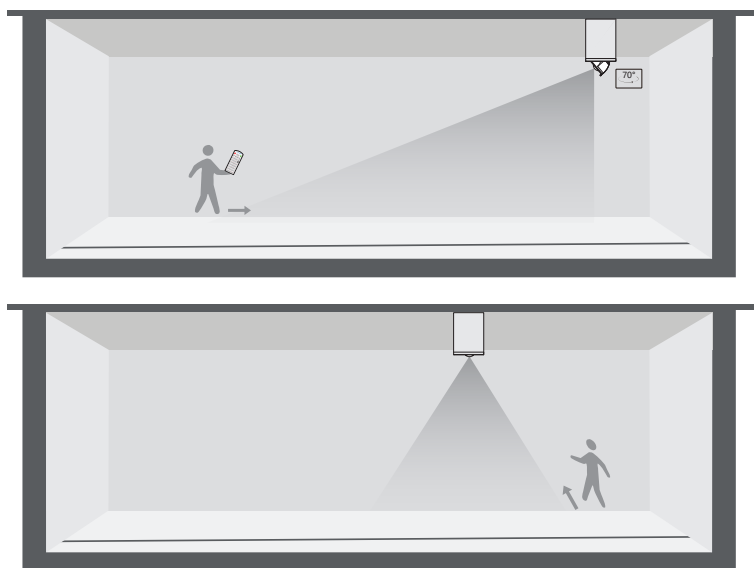
360°

2.5m

max. 13m

max. 6m

The installation data conduct by following testing conditions:

1. Environmental humidity: 85%;

2. Single person walking;

3. Sensor not connected to any driver that may have soft-on period;

4. Testing temperature Ta = 27°C;

5. The testing is conducted in an open and spacious indoor field, without noticeable obstacles or infuences that may affect PIR performances.

Application	Angle	Height	Tangential /Radial	Sensitivity			
				100%	75%	50%	10%
Ceiling-mounted	90°	3m	Tangential	8m	6m	5m	4m
			Radial	4m	3m	2m	1m
	70°		Tangential	15m	11m	8m	6m
			Radial	6m	4m	3m	2m
	90°	6m	Tangential	10m	7m	5m	1m
			Radial	6m	1m	none	none
	70°		Tangential	8m	6m	4m	1m
			Radial	4m	2m	1m	none
Wall-mounted	90°	2.5m	Tangential	13m	11m	9m	7m
			Radial	2m	1m	1m	0m

Note: The unit of 90 degree detection data is diameter.

Ceiling-mounted application

Wall-mounted application

ON / OFF   Permanent ON/OFF function

Press button "ON/OFF" to select permanent ON or permanent OFF mode.
* Press button "AUTO", "RESET" or "Ambient" to quit this mode.
The mode will change to AUTO Mode after power failure.

RESET   Reset Settings

Press button "RESET", all settings go back to default values as below:
Detection range: 100%; Hold-time: 5min; Lux disabled

AUTO   Sensor mode

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

SEMI AUTO   SEMI-AUTO mode

Press "SEMI-AUTO"button, to enter semi-auto mode. The fixture is manually on by
push-switch and automatically off in this mode.

HRC-12

Detection range

Press buttons in zone "HF sensor Detection range" to set detection range at 100% / 75% / 50% / 10%.

Daylight threshold

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

Ambient daylight threshold

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 5sec / 1min / 5min / 10min / 15min / 30min / 60min.
Note: 1. 5sec is test mode.
2. Press button 30min / 60min, the actual setting is 25min.

Dimming Interface Operation Notes

Switch-Dim

The provided Switch-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches.

Switch Function	Action	Descriptions

Push switch	Short press (<1 second)
	   * Short press has to be longer than
	     0.1s, or it will be invalid.
		- Turn on/off - Recall a scene
		- Turn on only - Quit manual mode
		- Turn off only - Do nothing

	Long press (≥1 second)	

Additional Information / Documents

1. Regarding precautions for PIR Sensors installation and operation, please kindly refer to
   www.hytronik.com/download ->knowledge ->PIR Sensors - Precautions for Product Installation and Operation

2. Regarding Hytronik standard guarantee policy, please refer to
   www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy