



PIR Motion Sensor

624834 Czujnik PIR HYT DALI-2 HIR23/D2 IoT
 624995 Czujnik PIR HYT DALI-2 HIR23/D2/W IoT
 625268 Czujnik PIR HB HYT DALI-2 HIR23/D2/H IoT



Product Description

HIR23/D2 stand-alone PIR & daylight sensors have been certified as DALI-2 input device with main purpose to incorporate into DALI-2 application controller/master. It is ideal for typical indoor applications such as office, classroom, healthcare and other commercial areas.



HIR23/D2



HIR23/D2/H



HIR23/D2/W

Hardware Features

- 2-in-1: PIR motion sensor + Daylight sensor
- IP20/IP65 ceiling/surface mount box available as accessory
- Various PIR lens and blind inserts options
- User-friendly design for installation
- High bay version available (up to 15m in height)
- 5-year warranty
- Compliant to standard IEC62386_101,103,303,304



Technical Specifications

Sensor Data	
Sensor Model	PIR detection
HIR23/D2	Installation Height : 6m Detection Range (∅) : 9m
HIR23/D2/W	Installation Height : 6m Detection Range (∅) : 18m
HIR23/D2/H	Installation height: 15m (forklift) 12m (person) Detection range (∅): 24m
Lux reading range	< 1000 lux
Detection angle	360°

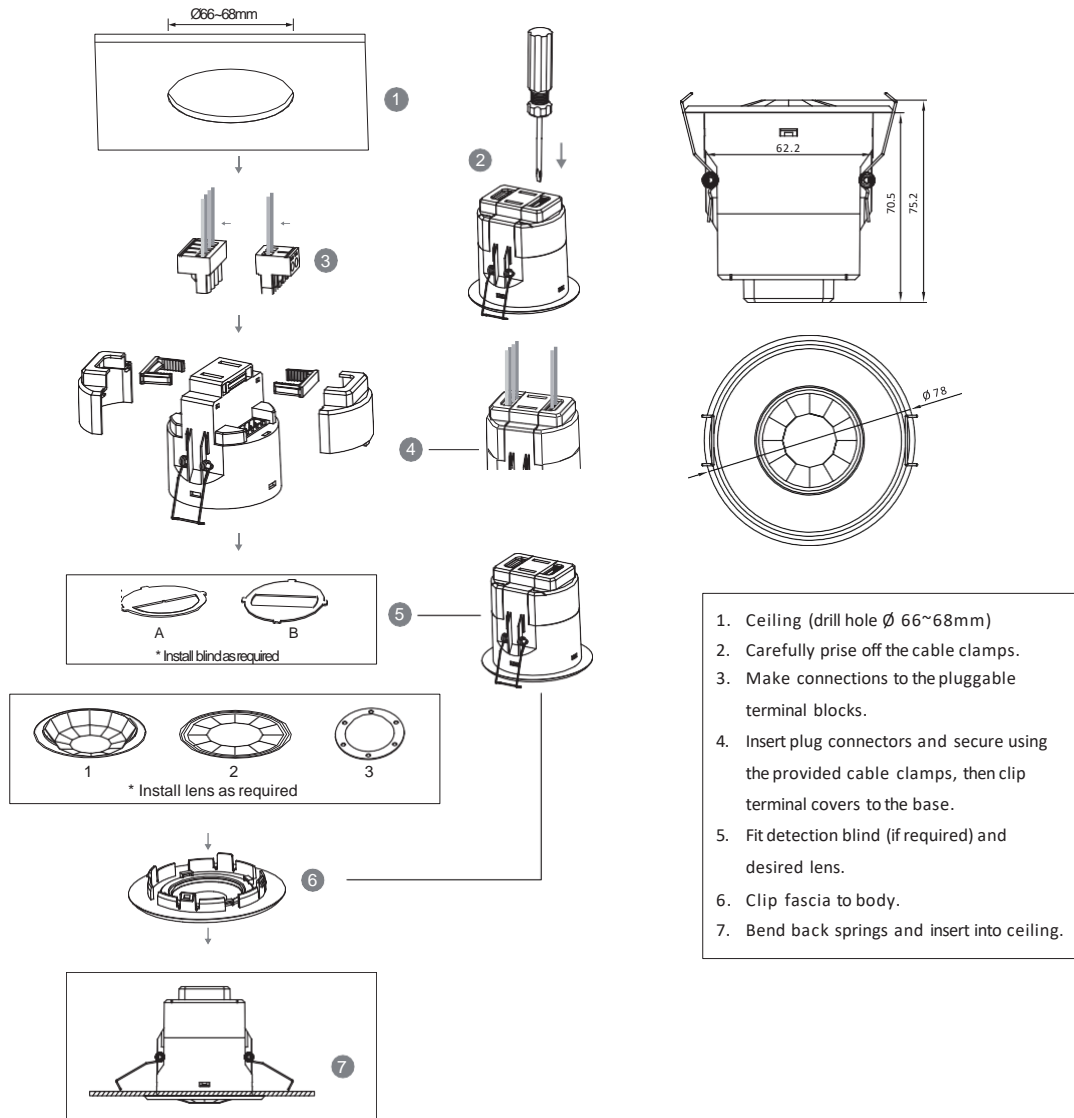
Input & Output Characteristics	
Operating voltage	9.5~22.5VDC
Consumption DALI	Max. 10 mA(no LED)
BUS current	Max. 12 mA(with LED)
Identify device	Red LED flashes 15S
Warming-up	5s

Safety & EMC	
EMC standard (EMC)	EN55015, EN61000, EN61547
DALI	IEC60386-101, 103, 303, 304
RED	EN300328, EN301489-1/-17
Certification	CE, REACH, UKCA, RCM, ROHS compliance

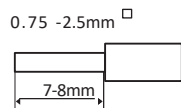
Environment	
Operation temperature	Ta: -20°C ~ +50°C
IP rating	IP20

* For more details of detection range, please refer to "detection pattern" section.

Mechanical Structure & Dimensions



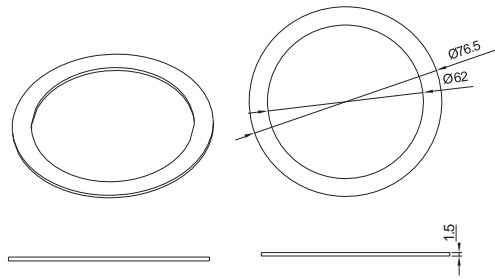
Wire Preparation



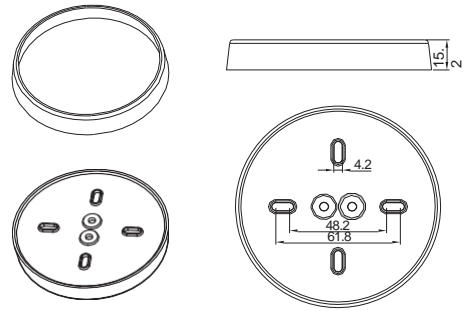
Pluggable screw terminal. It is recommended to make connections to the terminal before fitting to the sensor.

Big and small silicon gasket used to make IP65 degree protection when HIR23/D2 series device mounted into HA03 housing for ceiling mount

Small silicon water-proof gasket dimension(size:mm)



Big silicon water-proof gasket dimension(size:mm)



Detection Pattern & Optional Accessories

1. HIR23/D2 (Low-bay)

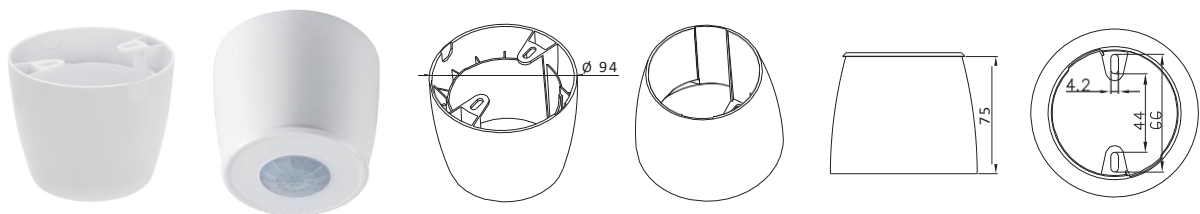


HIR23/D2: Low-bay flat lens detection pattern for **single person** @ Ta = 20°C

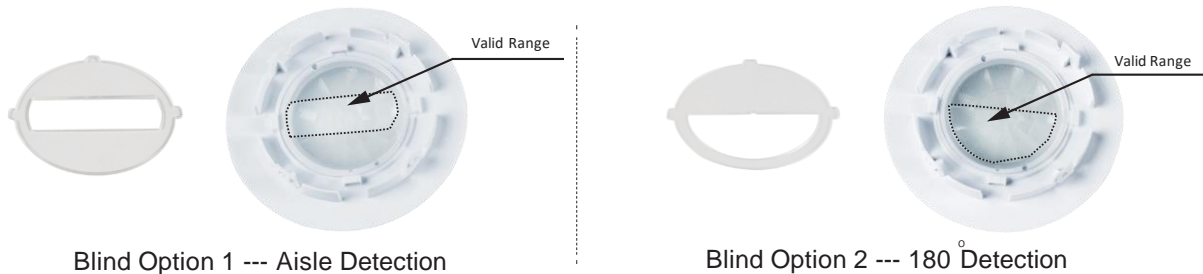
(Recommended ceiling mount installation height **2.5m-6m**)

A: Tangential movement	B: Radial movement	Mount height	Tangential (A)	Radial (B)
		2.5m	max 50m ² (∅ = 8m)	max 13m ² (∅ = 4m)
		3m	max 64m ² (∅ = 9m)	max 13m ² (∅ = 4m)
		4m	max 38m ² (∅ = 7m)	max 13m ² (∅ = 4m)
		5m	max 38m ² (∅ = 7m)	max 13m ² (∅ = 4m)
		6m	max 38m ² (∅ = 7m)	max 13m ² (∅ = 4m)

Optional Accessory —Ceiling/Surface Mount Box: HA03



Optional Accessory —Blind Insert for Blocking Certain Detection Angles



3. HIR23/D2/W (Wide range Low-bay)

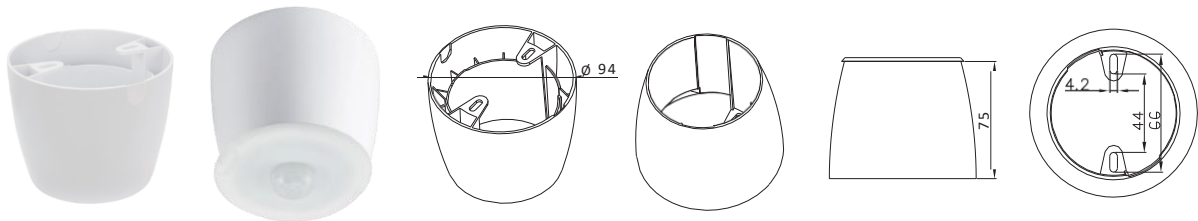


HIR23/D2/W: Low-bay convex lens detection pattern for **single person** @ $T_a = 20^\circ\text{C}$

(Recommended ceiling mount installation height **2.5m-6m**)

A: Tangential movement	B: Radial movement	Mount height	Tangential (A)	Radial (B)
		2.5m	max 254m ² (∅ = 18m)	max 28m ² (∅ = 6m)
		3m	max 254m ² (∅ = 18m)	max 28m ² (∅ = 6m)
		4m	max 154m ² (∅ = 14m)	max 28m ² (∅ = 6m)
		5m	max 113m ² (∅ = 12m)	max 28m ² (∅ = 6m)
		6m	max 79m ² (∅ = 10m)	max 13m ² (∅ = 4m)

Optional Accessory – Ceiling/Surface Mount Box: HA03



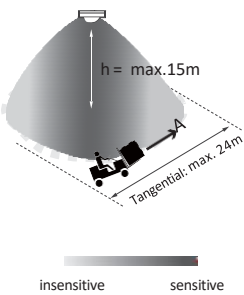
4. HIR23/D2/H (High-bay)

HIR23/D2/H: High-bay lens detection pattern for **forklift** @ Ta = 20°C

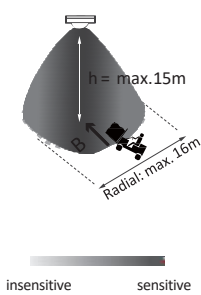
(Recommended ceiling mount installation height **10m-15m**)



A: Tangential movement



B: Radial movement



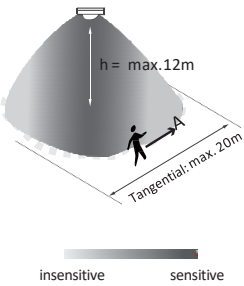
Mount height	Tangential (A)	Radial (B)
10m	max 380m ² (∅ = 22m)	max 201m ² (∅ = 16m)
11m	max 452m ² (∅ = 24m)	max 201m ² (∅ = 16m)
12m	max 452m ² (∅ = 24m)	max 201m ² (∅ = 16m)
13m	max 452m ² (∅ = 24m)	max 177m ² (∅ = 15m)
14m	max 452m ² (∅ = 24m)	max 133m ² (∅ = 13m)
15m	max 452m ² (∅ = 24m)	max 113m ² (∅ = 12m)



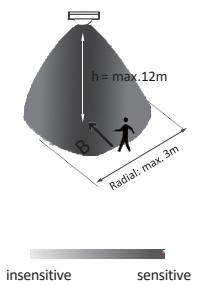
HIR23/D2/H: High-bay lens detection pattern for **single person** @ Ta = 20°C

(Recommended ceiling mount installation height **2.5m-12m**)

A: Tangential movement

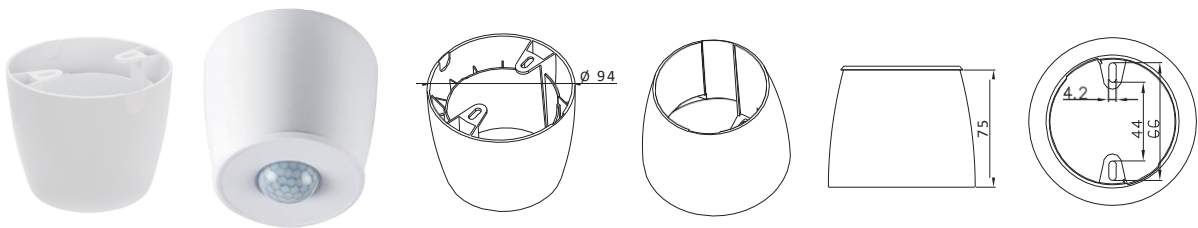


B: Radial movement

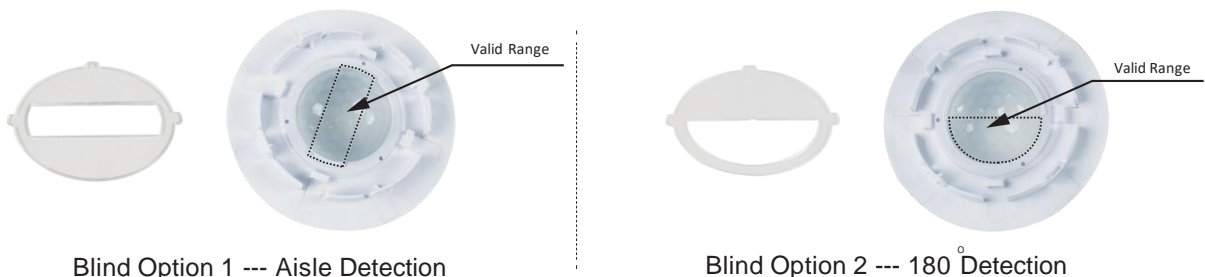


Mount height	Tangential (A)	Radial (B)
2.5m	max 50m ² (∅ = 8m)	max 7m ² (∅ = 3m)
6m	max 104m ² (∅ = 11.5m)	max 7m ² (∅ = 3m)
8m	max 154m ² (∅ = 14m)	max 7m ² (∅ = 3m)
10m	max 227m ² (∅ = 17m)	max 7m ² (∅ = 3m)
11m	max 269m ² (∅ = 18.5m)	max 7m ² (∅ = 3m)
12m	max 314m ² (∅ = 20m)	max 7m ² (∅ = 3m)

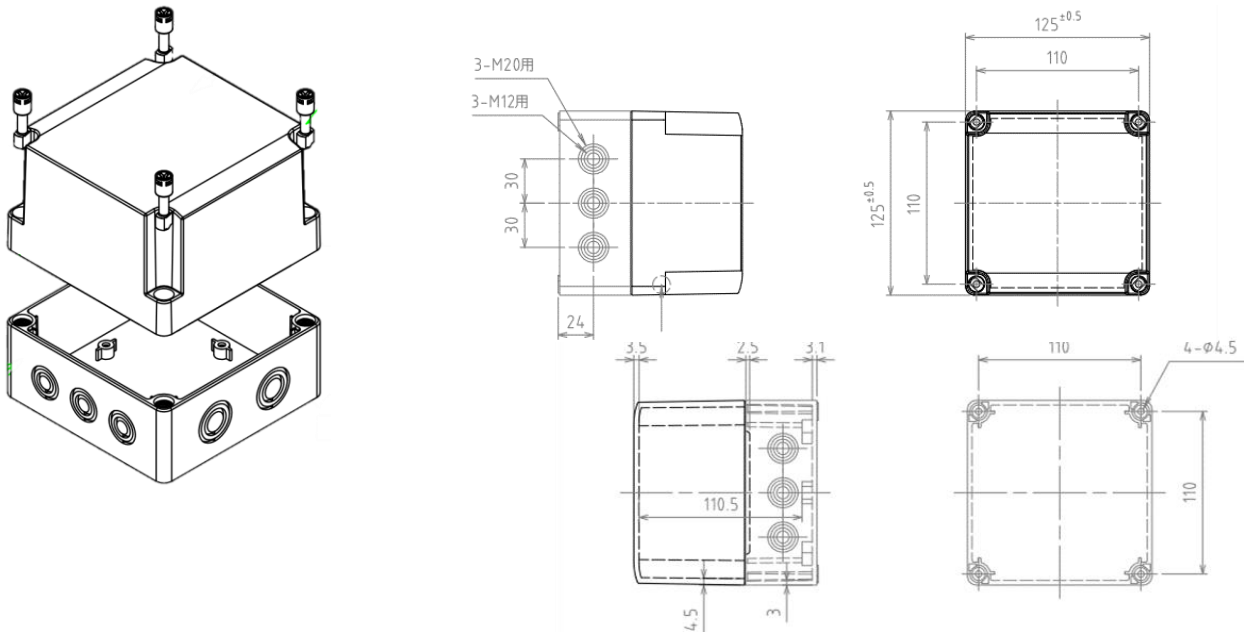
Optional Accessory —Ceiling/Surface Mount Box: HA03



Optional Accessory —Blind Insert for Blocking Certain Detection Angles

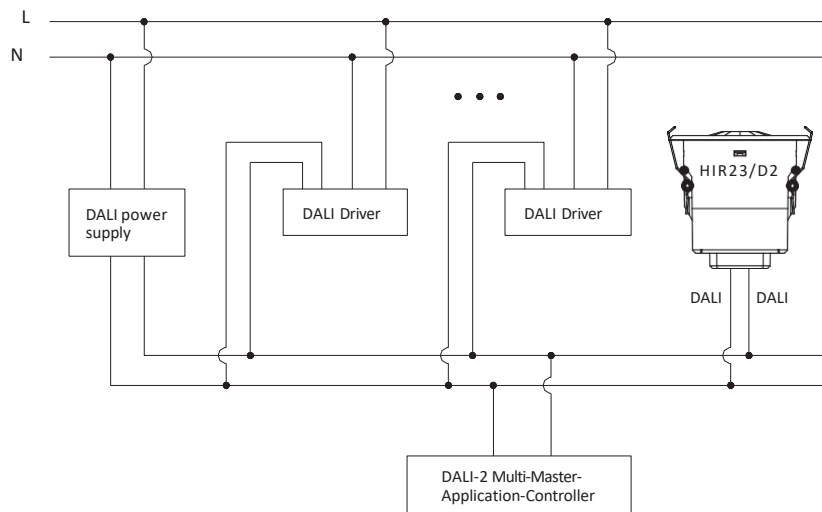


Optional Equipment – Ceiling/Surface Mount Box: TAKACHI IP67



Manufacturer's code	Dimensions			Internal dimensions			Color	Weight [g]
	S	W	G	s	w	g		
SPCM13 1313G	125	125	125	114.5	110.5	90	RAL7035	401

Wiring Diagram



Note: HIR23/D2 has been used as DALI-2 input device to only report DALI instance(light sensor instance and motion sensor instance) to DALI-2 application controller, who is the “main brain” to process the data communication between input devices and the control gear and assign different function.

For more information, please contact iot@lenalighting.pl