

Lenses for the EKMB/EKMC series

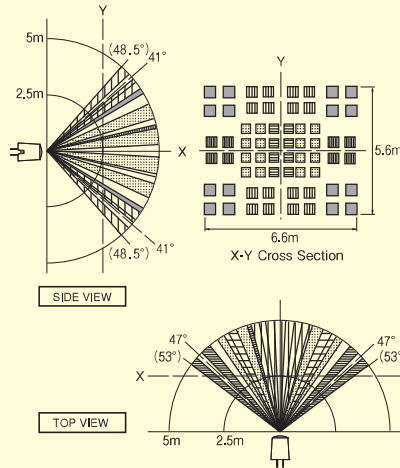
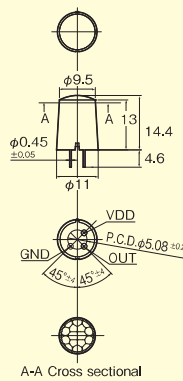
Dimension (mm)

Detection zone

Detection characteristics

Standard detection type

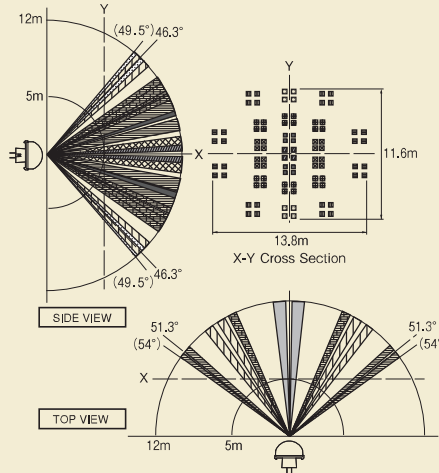
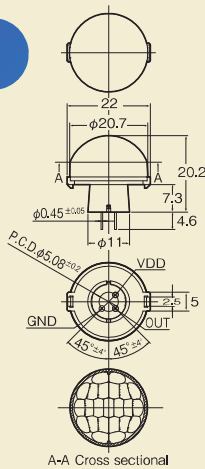
CAD data



Detection distance	Max. 5m
Field of view	94°×82°
Detection zone	64 beams
Detection condition	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1.0m/s - Target concept: Human body with an approx. size of 700×250mm - Target moving direction: Crossing the detection beam.

Long distance detection type

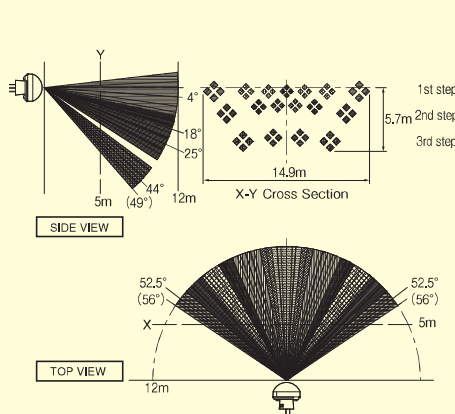
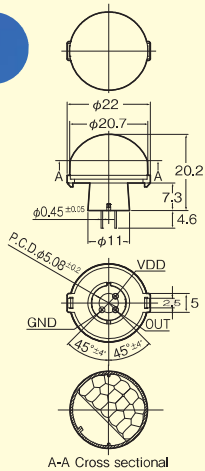
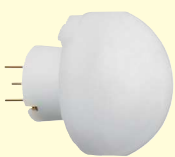
CAD data



Detection distance	Max. 12m
Field of view	102°×92°
Detection zone	92 beams
Detection condition	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1.0m/s - Target concept: Human body with an approx. size of 700×250mm - Target moving direction: Crossing the detection beam.

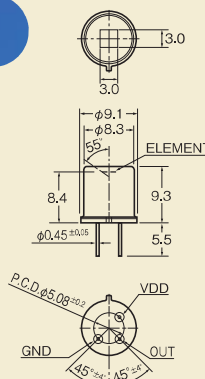
Wall installation type

CAD data

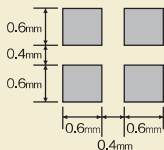


Detection distance	1st step lens	Max. 12m
	2nd step lens	Max. 6m
	3rd step lens	Max. 3m
Field of view	40°×105°	
Detection zone	68 beams	
Detection condition	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1.0m/s - Target concept: Human body with an approx. size of 700×250mm - Target moving direction: Crossing the detection beam.	

Lensless type



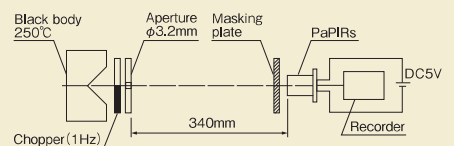
PIR element



Detection sensitivity	Average: 5.6μW/cm ² Maximum: 7.6μW/cm ²
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※Detection sensitivity is measured by following system

Test setup



Horizontally wide detection type

Current consumption **1/2/6/170μA**

Digital output

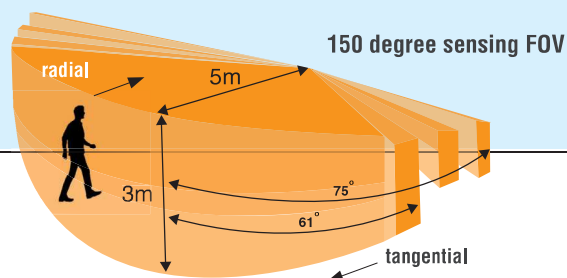


➤ **World's first PIR with "Approach Sensing" technology**

Panasonic presents the world's first PIR sensor in the shape of a hammerhead with a special optic, which is more sensitive to radial motion.

Recommended applications

Wall switches, thermostats, IP cameras, wake-up switch for displays, intrusion alarm sensors (e.g. for windows and doors), door intercom systems, entrance and garden lamps, automatic door systems, vending machines



Horizontally wide detection type

▶ Current consumption in standby mode (1μA type: in sleep mode)		1μA	2μA	6μA	170μA
▶ Output		Digital (open collector)			
▶ Lens color	White	EKMB1105111	EKMB1205111	EKMB1305111K	EKMC1605111
	Black	EKMB1105112	EKMB1205112	EKMB1305112K	EKMC1605112
	Pearl white	EKMB1105113	EKMB1205113	EKMB1305113K	EKMC1605113

Dimension (mm)

Detection zone

Detection characteristics

CAD data by request

Technical drawing of the sensor unit showing top and side views with dimensions in mm and inches.

Top view dimensions:

- Overall width: 11.1 (0.437)
- Mounting hole spacing: 12 (0.472)
- Overall height: 13.3 (0.524)

Side view dimensions:

- Top flange width: 22.1 (0.870)
- Top flange thickness: 6.3 (0.248)
- Mounting hole diameter: $\phi 0.45 \pm 0.05$ (0.018 dia.)
- Base diameter: $\phi 11$ (0.433 dia.)
- Base height: 4.6 (0.181)
- Overall height: 16.6 (0.654)

Technical drawing of the sensor unit showing front view with dimensions in mm and inches.

Front view dimensions:

- Overall width: 5 (0.197)
- Mounting hole spacing: 2.5 (0.098)
- Overall height: 3.5 (0.138)
- Base height: 6 (0.236)
- Mounting hole diameter: $\phi 5.08 \pm 0.2$ (0.2 dia.)

Labels: VDD, GND, OUT

Technical drawing of the sensor unit showing side view with dimensions in mm and inches.

Side view dimensions:

- Overall width: 5 (0.197)
- Mounting hole spacing: 2.5 (0.098)
- Overall height: 3.5 (0.138)
- Base height: 6 (0.236)

SECTION A-A

Diagram of the detection zone showing a conical beam with dimensions in degrees and meters.

Beam dimensions:

- Beam angle: 10°
- Beam width at 1m: 1m (3.281)
- Beam height at 1m: 1m (3.281)
- Beam width at 2m: 2m (6.562)
- Beam height at 2m: 2m (6.562)
- Beam width at 4m: 4m (13.124)
- Beam height at 4m: 4m (13.124)

Diagram of the detection area A showing a grid of detection zones with dimensions in meters.

Grid dimensions:

- Grid width: 4m (13.124)
- Grid height: 4m (13.124)
- Grid spacing: 1m (3.281)

Diagram of the detection area B showing a fan-shaped beam with dimensions in degrees and meters.

Beam dimensions:

- Beam angle: 61°
- Beam width at 1m: 1m (3.281)
- Beam height at 1m: 1m (3.281)
- Beam width at 2.5m: 2.5m (8.203)
- Beam height at 2.5m: 2.5m (8.203)
- Beam width at 5m: 5m (16.406)
- Beam height at 5m: 5m (16.406)

Detection distance	Max. 5m*	
Field of view	Area A	122° x 35°
	Area B	150° x 20°
Detection zone	Area A	88
	Area B	16
Detection condition ▲	Area A	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1m/s - Target concept: human head with an approx. size of 700x250mm - Target moving direction: crossing 2 detection zones
	Area B	- The temperature difference between the target and the surroundings must be higher than 8°C. - Movement speed: 1m/s - Target concept: human body with an approx. size of 700x250mm - Target moving direction: crossing 2 detection zones

* Under specified detection conditions

▲ Please refer to "Cautions for use" (page 18) and "Basic principles" (page 18, point 5), for more details

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Standard and slight motion detection type

Current consumption **1/2/6/170µA**

Digital output



> 2 functions in 1 lens

High Sensitivity Centre ZONE: Optimized for detecting small movements and small objects

Normal Sensitivity Outer ZONE: Optimized for detecting larger movements of larger objects

Recommended applications

Lighting control, heaters, ventilators or air conditioners, IP cameras, intrusion alarms, digital signage, vending machines, multi-function printers, display panels for meeting rooms, PCs

NEW

		Standard and slight motion detection type			
► Current consumption in standby mode (1µA type: in sleep mode)		1µA	2µA	6µA	170µA
► Output		Digital (open collector)			
► Lens color	White	EKMB1193111	EKMB1293111	EKMB1393111K	EKMC1693111
	Black	EKMB1193112	EKMB1293112	EKMB1393112K	EKMC1693112
	Pearl white	EKMB1193113	EKMB1293113	EKMB1393113K	EKMC1693113

Dimension (mm)	Detection zone	Detection characteristics																					
CAD data by request																							
<table border="1"> <thead> <tr> <th>Detection distance</th><th colspan="2">Max. 2.2m*</th></tr> </thead> <tbody> <tr> <td>Field of view</td><td>Slight motion</td><td>44° x 44°</td></tr> <tr> <td></td><td>Standard motion</td><td>90° x 90°</td></tr> <tr> <td>Detection zone</td><td>Slight motion</td><td>36</td></tr> <tr> <td></td><td>Standard motion</td><td>48</td></tr> <tr> <td>Detection condition ▲</td><td>Slight motion</td><td> - The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 0.5m/s - Target concept: human head with an approx. size of 200x200mm - Target moving direction: crossing 1 detection zone </td></tr> <tr> <td></td><td>Standard motion</td><td> - The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1.0m/s - Target concept: human body with an approx. size of 400x200mm - Target moving direction: crossing 2 detection zones </td></tr> </tbody> </table>			Detection distance	Max. 2.2m*		Field of view	Slight motion	44° x 44°		Standard motion	90° x 90°	Detection zone	Slight motion	36		Standard motion	48	Detection condition ▲	Slight motion	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 0.5m/s - Target concept: human head with an approx. size of 200x200mm - Target moving direction: crossing 1 detection zone		Standard motion	- The temperature difference between the target and the surroundings must be higher than 4°C. - Movement speed: 1.0m/s - Target concept: human body with an approx. size of 400x200mm - Target moving direction: crossing 2 detection zones
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Please contact your local sales representative for detailed specifications.