

APPLICATIONS

Commercial / Residential Equipment

- Lighting fixtures, Sensor switches,
- Video intercoms, Vending machines,
- Home automation control panels

Home Appliances (Energy Savings)

Television and PC monitorAir conditioners, Air purifiers



Simplified circuitry with fully integrated sensor design

Panasonic's proprietary high-density embedded circuit design eliminates external sensing circuits. Advantages include reduced development and design schedules.

Low curvature lens for product designs

Panasonic's lens formation technology achieves a semi-flat lens with a smooth surface and minimum protrusion from the device. In addition to white and black lens options, pearl white is offered for design aesthetics. (*Refer to *Dimensions* on page 5)

Robust design prevents false detection

PaPIRs sensing circuits are enclosed in a metallic can to minimize adverse effects of external electromagnetic fields. Examples include irradiated noise caused by cellular phones.

A high S/N ratio minimizes sensitivity to false tripping when operated under various environmental conditions.

Lead-free pyroelectric elements

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PaPIRs sensing elements contain lithium tantalate and are lead-free. Typical PIR sensing elements are ferroelectric ceramic (PZT) containing lead.





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PRODUCT TYPES

Detection Performance	Current Consumption	Lens Color Model No.		Inner Package	Outer Package	
Standard detection type	170 <i>µ</i> A	White	EKMC1601111			
		170 μ A Black		EKMC1601112 50pcs		1000pcs
		Pearl Whi		EKMC1601113		
Long Distance detection type	170 µ A	White	EKMC1603111			
		ction type 170 μ A Black EKMC1603112 Pearl White EKMC1603113		EKMC1603112	50pcs	1000pcs
				EKMC1603113		

PERFORMANCE

1. Detection Performance [Conditions for measuring: Ambient temperature:25°C(77°F) Operating voltage:5VDC]

Items		Standard Detection type	Long Distance Detection type	Conditions concerning target	
Detection Range *1)		Max. 5m	Max. 12m	1. The temperature difference	
Detection Area	Horizontal *2)	94°(±47°)	102°(±51°)	surroundings should be (7.2°)	
	Vertical *2)	82°(±41°)	92°(±46°)	 Superior to 4 C(7.2 F). Movement speed: 1.0m/s Target concept is human body (Size: 700 × 250mm) 	
	Detection Zone *3)	64 zones	92 zones		

*1)Depending on the target's speed and its temperature difference with the surroundings, detection can occur at a range superior to the above value. However, please use this sensor according to the specifications.

*2) Definitions for "Horizontal" and "Vertical"



Standard detection type



Long Distance detection type

*3)Refer to the "detection area" diagram on P.4.

2. Maximum Rated Values

Items	Specified value	
Power Supply Voltage	-0.3~7.0V DC	
Usable Ambient Temperature	$-20 \sim +60^{\circ}C (-4 \sim +140^{\circ}F)$ Do not use in a freezing or condensation environment.	
Storage Temperature	−20~+70°C(−4~+158°F)	

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