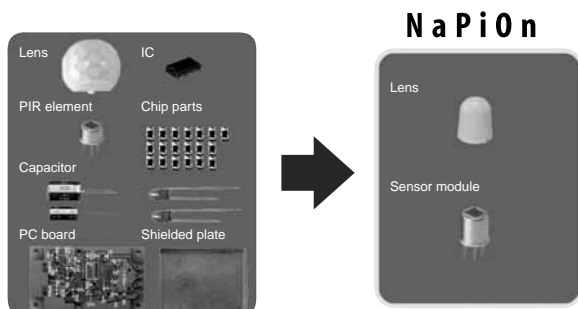


RoHS compliant

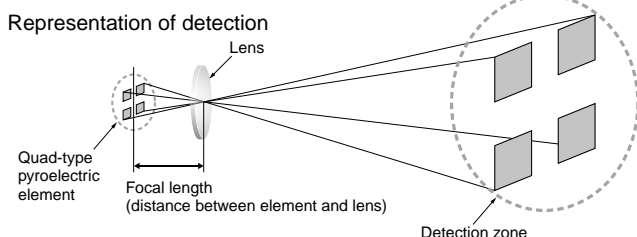
FEATURES

1. **N a P i O n** pyroelectric sensor modules contain the necessary functions in a small package (TO-5). These miniature, high-performance infrared human detection sensors take the trouble out of circuit design and mounting.



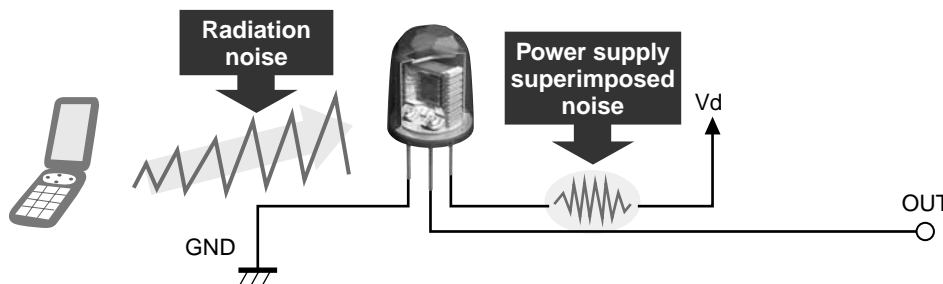
2. Ideal for small-movement detection thanks to quad-type pyroelectric element.

The quad-type pyroelectric element contained in **N a P i O n** has four receptors. Since the detection zone within the detection range is so precise, even small movements can be detected.



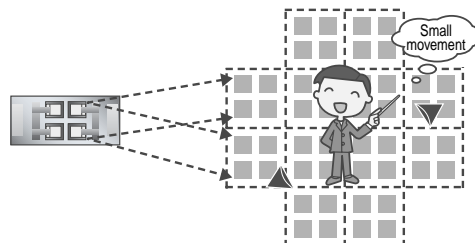
5. Excellent noise resistance (radiation noise, power supply noise)

The entire **N a P i O n** circuitry is enclosed in a metal package, which means it has extremely high electromagnetic shielding capabilities. With proven resistance against power supply noise, it is also resistant against power supply superimposed noise.



3. Lenses can be miniaturized because the pyroelectric element is small

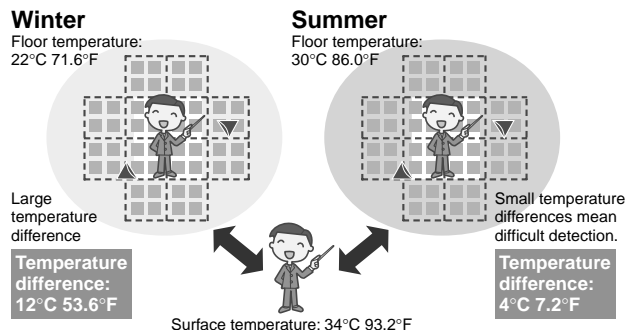
A short focal length is all that's required even when detecting at the same distance, because the size of the **N a P i O n** pyroelectric element is so small. This means that high precision is maintained even though the lens is small and the sensor itself has been miniaturized.



4. Small temperature differences also detected.

N a P i O n detects the temperature difference between the detection target and its surroundings, and the lowest required temperature difference to the background is 4°C 7.2°F.

This means that temperature differences can be accurately detected not only in winter, when the temperature differences are large, but also in summer, when temperature differences are slight.



MP Motion Sensor (AMN2, 3, 4)

TYPICAL APPLICATIONS

1. Home appliance market: Air conditioner, air purifier and fan heater
2. Construction equipment: lighting, automatic switches
3. Commercial equipment: vending machines, facilities for designated smoking areas
4. Anti-crime device market: crime prevention sensor, simple anti-crime devices, surveillance cameras

ORDERING INFORMATION

Output type
2: Analog output
3: Digital output

4: Low current consumption (digital output)

Detection performance
1: Standard detection type
2: Slight motion detection type

3: Spot detection type
4: 10m detection type

Feature
1: PC board mounting type

Operating voltage
1: 5V DC
2: 3V DC

Lens color
1: Black
2: White

AMN

1

PRODUCT TYPES

Detection performance	Output type	Digital output	Low current consumption type Digital output	Analog output
	Lens color			
Standard detection type	Black	AMN31111	AMN41121	AMN21111
	White	AMN31112	AMN41122	AMN21112
Slight motion detection type	Black	AMN32111	AMN42121	AMN22111
	White	AMN32112	AMN42122	AMN22112
Spot detection type	Black	AMN33111	AMN43121	AMN23111
	White	AMN33112	AMN43122	AMN23112
10m detection type	Black	AMN34111	AMN44121	AMN24111
	White	AMN34112	AMN44122	AMN24112

Standard packing: Carton: 50 pcs.; Case: 1,000 pcs.

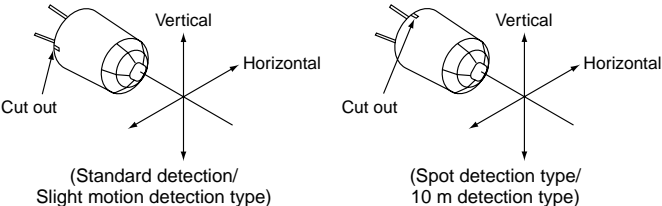
RATING

1. Detection performance

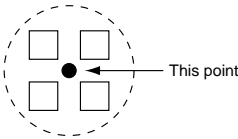
Items		Standard detection type	Slight motion detection type	Spot detection type	10m detection type	Conditions of objects to be detected
Rated detection distance Note 1)		Max. 5m 16.404ft	Max. 2m 6.562ft	Max. 5m 16.404ft	Max. 10m 32.808ft	
Detection range	Horizontal Note 2)	100°	91°	38°	110°	1. Detectable difference in temperature between the target and background is more than 4°C 7.2°F. 2. Movement speed 1) Digital output type • Standard detection type/Spot detection type/ 10m detection type: 0.8 to 1.2 m/s • Slight motion detection type: 0.5 m/s 2) Analog output and low current consumption types • Standard detection type/Spot detection type/ 10m detection type: 0.5 to 1.5 m/s • Slight motion detection type: 0.3 to 1.0 m/s 3. Detection object = human body (size is 700mm × 250mm 27.559inch × 9.843inch, but for the slight motion detection type the size is 200mm × 200mm 7.874inch × 7.874inch)
	Vertical Note 2)	82°	91°	22°	93°	
	Detection zone Note 3)	64 zones	104 zones	24 zones	80 zones	

Notes: 1. Depending on the difference in temperature between the background and detection target and the speed at which the target moves, these sensors may be capable of detection beyond the detection distances stated above. Nevertheless, they should be used within the prescribed detection distances. For further details, refer to the detection range diagram on page 24.

2.



This angle represents the center point of the detection zone created by the outermost lens.



3. Regarding of detection zone, please refer to "DETECTION PERFORMANCE" on page 24.