

| Order code | Manufacturer code | Description |
|------------|-------------------|--------------------------------------|
| 61-1462 | n/a | PASSIVE INFRARED MODULE WITH LENS RC |

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|--|--------------------------|
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| The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E. | Revision A 20/02/2007 |

**SPECIFICATION OF
PASSIVE INFRARED MODULE**

Part No: SGM5910-7-P

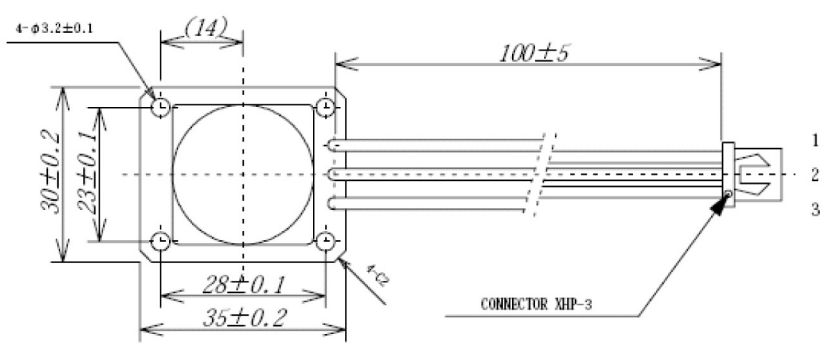
This module utilises a dual element sensor to detect infrared rays moving from a human body in a specific area. Standard version supplied without leads. Manufactured by Nippon Ceramic Co. Ltd. of Japan.

■ Module Structure

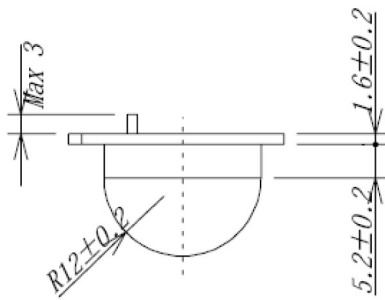
NiCera's passive infrared sensor, Fresnel lens and some electric components are mounted on a PC Board.

■ Dimensions

Top View:



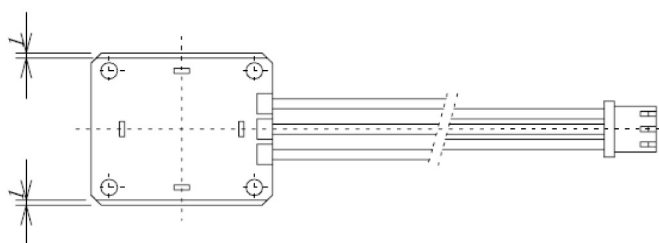
Side View:



| Connector No | Cable Colour | Function |
|--------------|--------------|--------------|
| 1 | Black | GND |
| 2 | White | OUTPUT |
| 3 | Red | Power Supply |

Unit [mm]

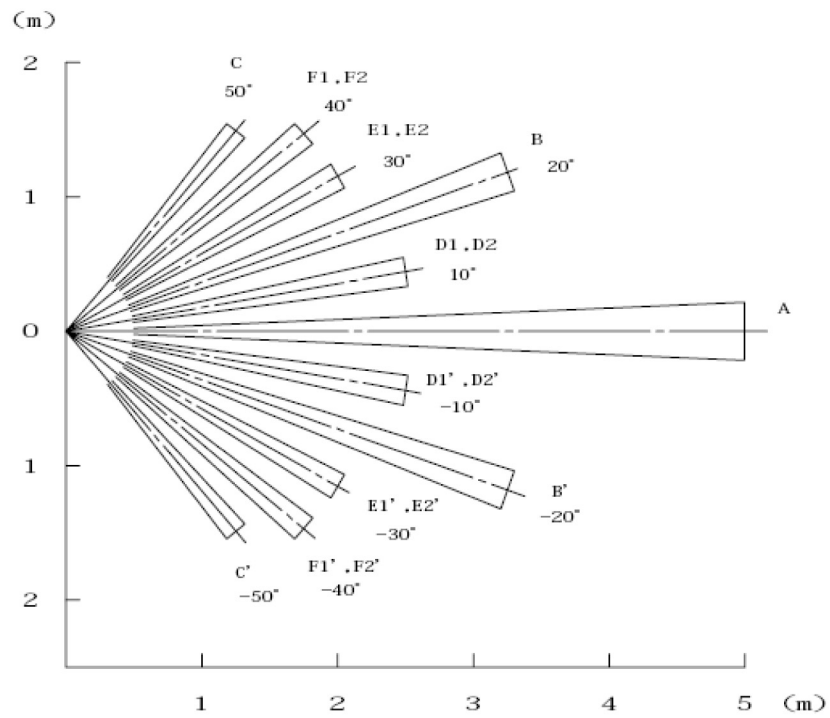
Bottom View:



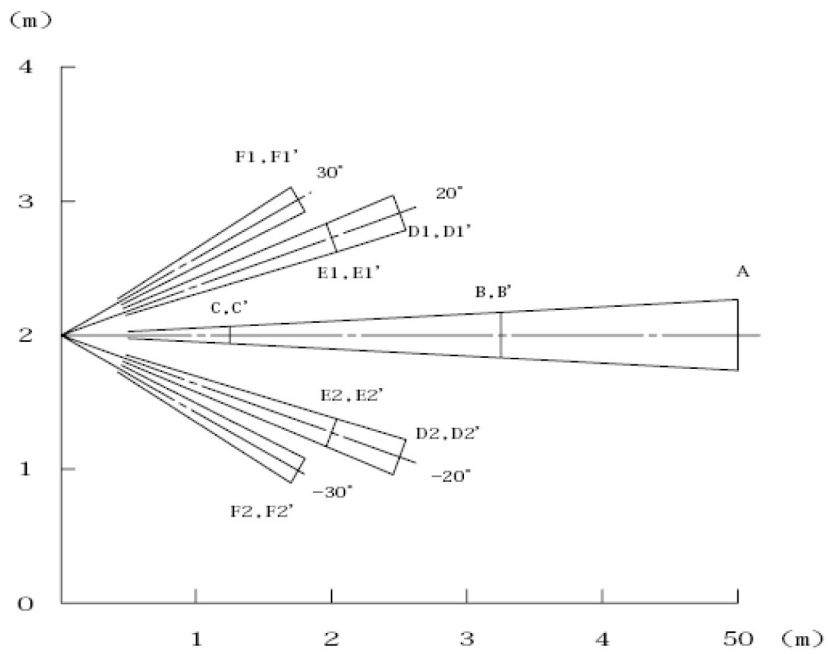
Please note: leads not supplied.

■ Detection Area

NPN Transistor Open-Collector Output form (Active Low)



Horizontal



Vertical

■ Electrical Characteristics

Sensitivity:

This module is designed to detect a human body or similar heat source under the conditions listed below.

| Items | | Unit | Notes |
|-----------------------------|--------|----------|----------------------------|
| Install height of module | 1 | metre | |
| Heat source temperature | 3 to 5 | Degree C | From background |
| Moving speed of heat source | 1.0 | m/sec | |
| Direction of movement | 90 | degree | At central detection zones |

Maximum Rating:

| Items | Symbols | Min. | Typ. | Max. | Unit |
|-------------------|------------------|------|------|------|-----------------|
| Breakdown voltage | | | | 12 | V _{DC} |
| Operating Temp. | T _{OPR} | -20 | – | 50 | Degree C |
| Storage Temp. | T _{STG} | -30 | – | 70 | Degree C |

Electrical Characteristics:

(At 25°C, V_{CC}=5.0V if not specified otherwise.)

| Items | Symbols | Min. | Typ. | Max. | Unit |
|---------------------------|-----------------|------|------|------|-----------------|
| Operating voltage | V _{CC} | 4.75 | 5 | 10 | V _{DC} |
| Supply Current | I _{CC} | – | 1 | 2 | mA |
| Stabilized time of module | T _{ON} | – | 15 | 30 | Sec. |

#1 – After power supply starts, output should not fix during above T_{ON}.

■ RoHS Compliance

This product does not contain Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls (PBB) or Polybrominated Diphenyl Ethers (PBDE) in more than the percentages specified by EU DIRECTIVE 2002/95/EC, except exemptions stated in EU DIRECTIVE 2002/95/EC ANNEX.

■ Cautions

1. This module fundamentally detects a change of infrared energy. This module does not only detect a moving human body but also other heat sources similar to human temperature.
2. This module can't detect the presence of a human body that is NOT moving.
3. This module detects changes of infrared rays through the Fresnel lens. Detection areas and range depend on its surface condition.
4. To prevent malfunctions, operational failure or any deterioration of its characteristics, do not use this module in the following, or similar, conditions:
 - a. In rapid environmental temperature changes
 - b. In strong shock or vibration
 - c. In high humidity and temperature

Please note that unit malfunctions resulting from misuse, inappropriate handling or storage are not the manufacturer's responsibility.
