

SPECIFICATION FOR APPROVAL

MODEL : REP05B-P

PYROELECTRIC INFRARED SENSOR

CUSTOMER:

APPROVED BY:

DATE:

TYPE: REP05B-P

PAGE: 1 /6

CHART:

EDITION: A

SHANGHAI NICERA SENSOR CO.,LTD

TYPE OF SENSOR

QUAD ELEMENTS

PHYSICAL CONFIGURATION

- (1) PACKAGE TO-5 METAL CAN
SEE FIGURE A
- SENSITIVE AREA 4 -1.375×1.0 mm
- (2) LEAD CONFIGURATION SEE FIGURE B,C

ELECTRICAL CHARACTERISTICS (AT 25±5°C)

- (1) CIRCUIT CONFIGURATION SEE FIGURE D
- (2) SUPPLY VOLTAGE 2.2~15 V DC (Drain-Ground)
(Rs: 47K Ω)
- (3) OFFSET VOLTAGE 0.4~1.1 V
TYP 0.7 V (V_D=10V, Rs=47K Ω)
- (3) SIGNAL OUTPUT Min 2.0 V_{p-p}
TYP 3.6 V_{p-p} (Source-Ground)
(BLACK BODY 420K; CHOPPER
FREQUENCY 1Hz: MEASUREMENT
AMP. 0.3~3.0Hz、 72.5db(AT 1Hz))
SEE FIGURE F
- (5) SENSITIVITY 420K, 1Hz 3900 V/W
- (6) DETECTIVITY (420K,1Hz,1Hz) 1.2×10^8 cmHz^{1/2}/W
- (7) BALANCE OUTPUT Max 20% (Source-Ground)
(BLACK BODY 420K; CHOPPER
FREQUENCY 1Hz: MEASUREMENT
AMP. 0.3~3.0Hz、 72.5db(AT 1Hz))
SEE FIGURE G

TYPE: REP05B-P

PAGE: 2/6

CHART:

EDITION: A

SHANGHAI NICERA SENSOR CO.,LTD

- A. IN RAPID ENVIRONMENTAL TEMPERATURE CHANGES.
- B. IN STRONG SHOCK OR VIBRATION. CUSTOMERS TO USE FALL PROTECTION, CERAMIC CHIP FRAGILE.
- C. IN A PLACE WHERE THERE ARE OBSTRUCTING MATERIALS (GLASS.FOG.ETC) THROUGH WHICH INFRARED RAYS CANNOT PASS WITHIN DETECTION AREA.
- D. IN FLUID. CORROSIVE GASES AND SEA BREEZE.
- E. CONTINUAL USE IN HIGH HUMIDITY ATMOSPHERE.
- F. EXPOSED TO DIRECT SUN LIGHT OR HEADLIGHTS OF AUTOMOBILES.
- G. EXPOSED TO DIRECT WIND FROM A HEATER OR AIR CONDITIONS.
- H. PRODUCTION PROCESS, NOT THE ACCUMULATION OF STACKED PCB BOARD,THE FILTER IS EASILY DAMAGED.

3. ASSEMBLY RESTRICTIONS/PRECAUTIONS

SOLDERING-----

- A. USE SOLDERING IRONS WHEN SOLDERING.
- B. AVOID KEEPING PINS OF THIS HOT FOR A LONG TIME AS EXCESSIVE HEAT MAY CAUSE DETERIORATION OF ITS QUALITY.(E.G. WITHIN 5 SEC. AT 350°C)
- C. AVOID STATIC ELECTRICITYOR STRONG ELECTROMAGNETIC WAVES. RECOMMENDED TO WEAR A SHIELD RING.

WASHING-----

- A. BE SURE TO WASH OUT ALL FLUX AFTER SOLDERING AS RENAINDER MAY CAUSE MALFUNCTIONS.
- B. USE A BRUSH WHEN WASHING.WASHING WITH AN ULTRASONIC CLEANER MAY CAUSE OPERATIONAL FAILURE.

4.HANDLING AND STORAGE RESTRICTIONS/PRECAUTIONS

TO PREVENT SENSOR MALFUNCTIONS, OPERATIONAL FAILURE. APPEARANCE DAMAGE OR ANY DETERIORATION OF ITS CHARACTERISTICS. DO NOT EXPOSE THIS SENSOR TO THE FOLLOWING OR SIMILAR, HANDLING AND STORAGE CONDITIONS.

- A. VIBRATION FOR A LONG TIME.
- B. STRONG SHOCK.
- C. STATIC ELECTRICITYOR STRONG ELECTROMAGNETIC WAVES.
- D. HIGH TEMPERATURE AND HUMIDITY FOR A LONG TIME.
- E. CORROSIVE GASES OR SEA BREEZE.
- F. DIRTY AND DUSTY ENVIRONMENTS THAT MAY CONTAMINATE THE OPTICAL WINDOWS.

SENSOR TROUBLES RESULTING FROM MISUSE. INAPPROPRIATE HANDLING OR STORAGE ARE NOT THE MANUFACTURER ' S RESPONSIBILITY.

TYPE: REP05B-P

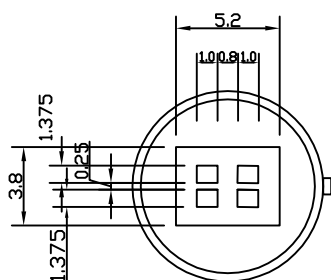
PAGE: 4 /6

CHART:

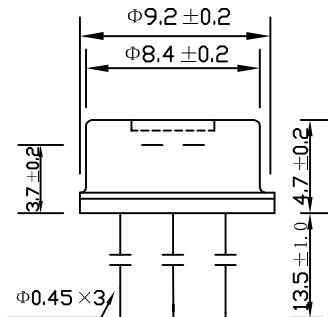
EDITION: A

SHANGHAI NICERA SENSOR CO.,LTD

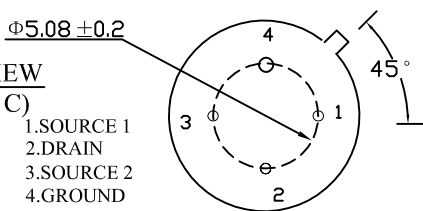
TOP VIEW
(FIGURE A)



SIDE VIEW
(FIGURE B)

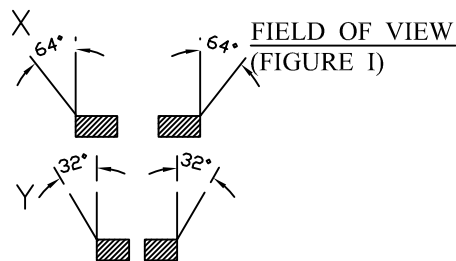
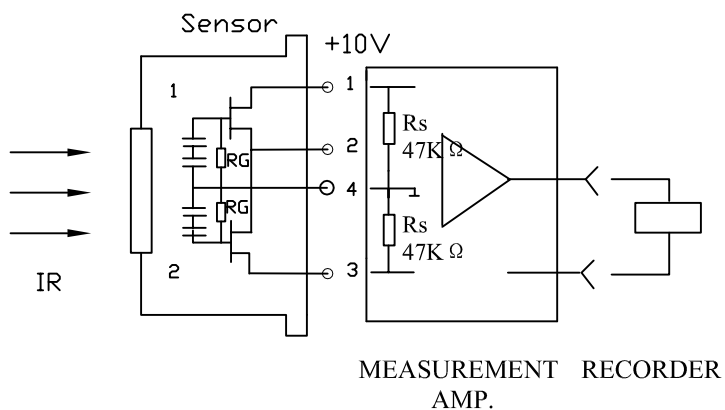


BASE VIEW
(FIGURE C)



- 1.SOURCE 1
- 2.DRAIN
- 3.SOURCE 2
- 4.GROUND

CIRCUIT CONFIGURATION
(FIGURE D)



FIELD OF VIEW
(FIGURE I)

TYPE: REP05B-P

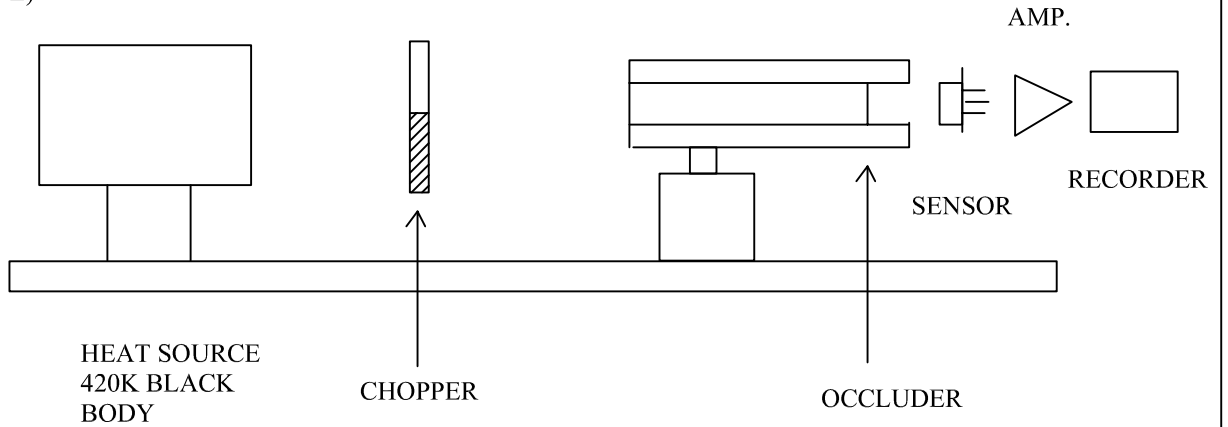
PAGE: 5/6

CHART:

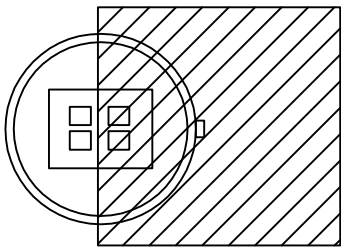
EDITION: A

SHANGHAI NICERA SENSOR CO.,LTD

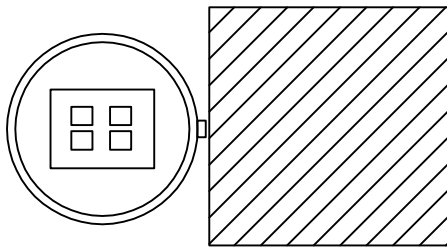
TEST DIAGRAM
(FIGURE E)



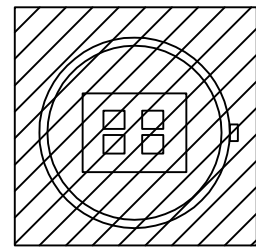
OCCLUDER POSITION



SIGNAL OUTPUT
(FIGURE F)



BALANCE OUTPUT
(FIGURE G)



NOISE OUTPUT
(FIGURE H)

TYPE: REP05B-P

PAGE: 6/6

CHART:

EDITION: A

SHANGHAI NICERA SENSOR CO.,LTD