SPECIFICATION

PYROELECTRIC PASSIVE
INFRARED SENSOR

MODEL KP500B-P

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ASSEMLY：	Shenzhen JCHL Technology Co., Ltd.		

TYPE OF SENSOR

TWIN ELEMENT

PHYSICAL CONFIGURATION

(1)	PACKAGE	TO-5 METAL CAN SEE FIGURE A
(2)	ELEMENT SIZE	2.0×1.0 mm
(3)	LEAD CONFIGURATION	SEE FIGURE B,C

ELECTRICAL CHARACTERISTICS (AT 25±5℃)

(1)	CIRCUIT CONFIGURATION	SEE FIGURE D
(2)	OPERATION VOLTAGE	2.2～15 V DC (Drain-Ground) (Rs：47KΩ)
(3)	SOURCE VOLTAGE	0.4～1.1 V (V_D=10V, Rs=47KΩ)
(4)	SIGNAL OUTPUT	Min 2.5 Vp-p (Source-Ground) (BLACK BODY 420K；CHOPPER FREQUENCY 1Hz：MEASUREMENT AMP. 0.3～3.0Hz、 72.5db(AT 1Hz)) SEE FIGURE F
(5)	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
(6)	NOISE OUTPUT	Max 200 mV (Source-Ground) (MEASUREMENT AMP. 0.3～3.0Hz、 72.5db(AT 1Hz)) SEE FIGURE H

OPTICAL CHARACTERISTICS

(1)	FIELD OF VIEW	138° ×125 ° SEE FIGURE I
(2)	WINDOW MATERIAL	Si Filter Cuton WL 5.0±0.5μm Thickness 0.5mm Average T〉75% Pass Band 5.0～14μm

ENVIRONMENTAL REQUIREMENTS

(1)	OPERATING TEMPERATURE	－20～＋50 ℃
(2)	STORAGE TEMPERATURE	－30～＋60 ℃

※ NOTES

1. DESIGN RESTRICTIONS/PRECAUTIONS

FOR OUTDOOR APPLICATIONS，BE SURE TO APPLY SUITABLE SUPPLEMENTARY OPTICAL FILTER AND DRIP-PROOF。ANTI-DEW CONSTRUCTION。THIS SENSOR IS DESIGNED FOR INDOOR USE。IN CASES WHERE SECONDRAY ACCIDENTS DEE TO OPERATION FAILURE OR MALFUNCTIONS CAN BE ANTICIPATED。 ADD A FAIL SAFE FUNCTION TO THE DESIGN。

2. USAGE RESTRICTIONS/PRECAUTIONS

TO PREVENT SENSOR MALFUNCTIONS, OPERATIONAL, FAILURE OR ANY DETERIORATION OF ITS CHARACTERISTICS. DO NOT USE THIS SENSOR IN FOLLOWING, OR SIMILAR, CONDITIONS.

A. IN RAPID ENVIRONMENTAL TEMPERATURE CHANGES.
B. IN STRONG SHOCK OR VIBRATION.
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.

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. AVOID STATIC ELECTRICITYOR STRONG ELECTROMAGNETIC WAVES.

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.

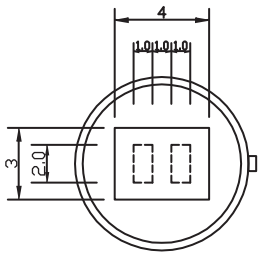
4.HANDLING AND STORAGE RESTRICTIONS/PRECAUTIONS

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.

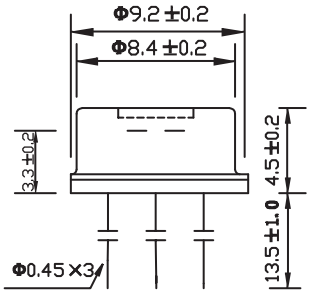
A. VIBRATION FOR A LONG TIME.
B. STRONG SHOCK.
C. STATIC ELECTRICITYOR STRONG ELECTROMAGNETIC WAVES.
D. HIGH TEMPERATURE AND HUMIDITY FOR A LONG TIME.
E. CORROSIVE GASES OR SEA BREEZE.
F. DIRTY AND DUSTY ENVIRONMENTS THAT MAY CONTAMINATE THE OPTICAL WINDOWS.

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

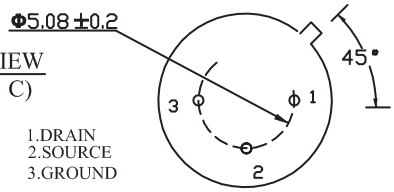
TOP VIEW
(FIGURE A)



SIDE VIEW
(FIGURE B)

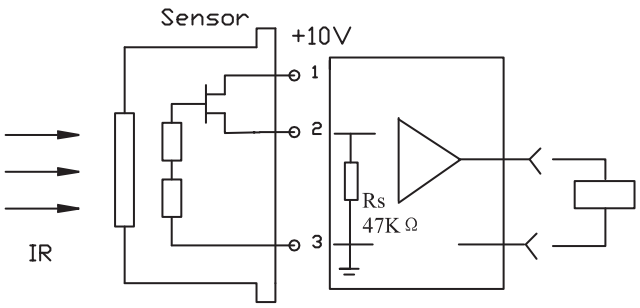


BASE VIEW
(FIGURE C)



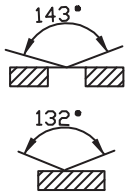
1.DRAIN
2.SOURCE
3.GROUND

CIRCUIT CONFIGURATION
(FIGURE D)



MEASUREMENT RECORDER
AMP.

FIELD OF VIEW
(FIGURE I)



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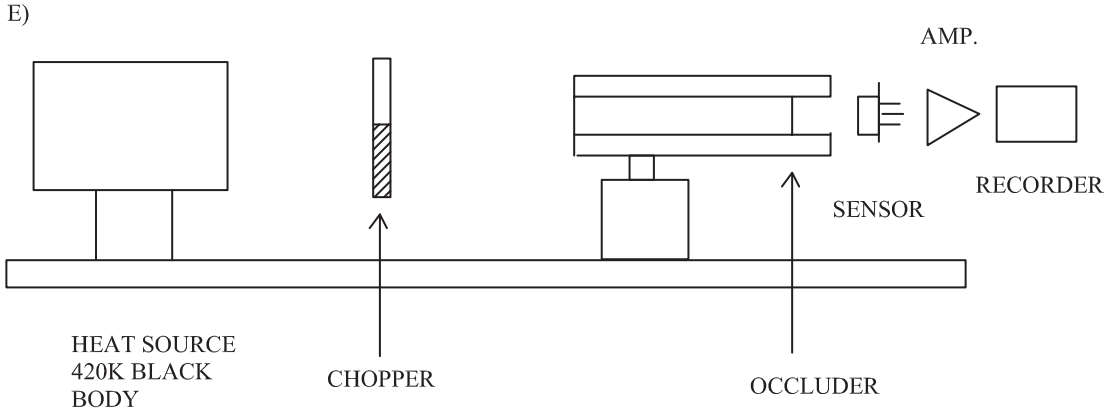
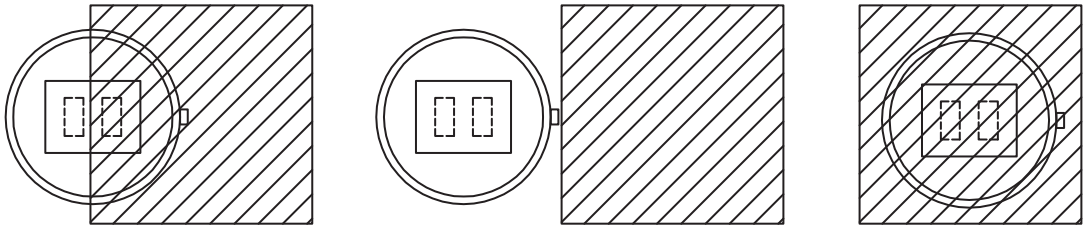
TEST DIAGRAM
(FIGURE E)



OCCLUDER POSITION



SIGNAL OUTPUT
(FIGURE F)

BALANCE OUTPUT
(FIGURE G)

NOISE OUTPUT
(FIGURE H)

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