Instruction Manual

Standard Flame Sensor

09.Sep.2024 r1
MAN-SKH-010
r1: First edition issued

SKH047MF

- **This product is designed to quickly detect and report ultraviolet rays (UV-C) emitted from flames.**
- **Please read this manual carefully for safe use.**
- **Keep it in a safe place after reading.**

⚠WARNING

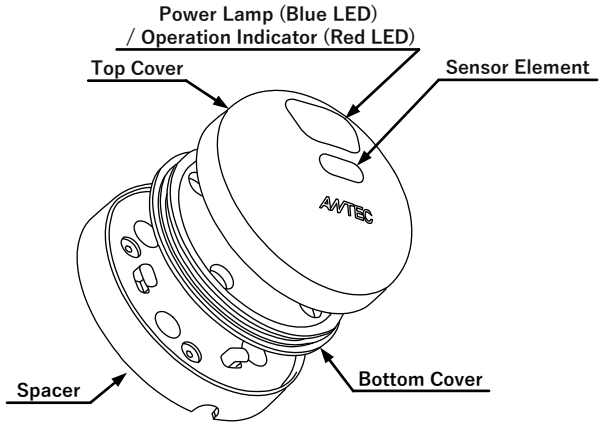
- This product is a flame sensor that uses an ultraviolet detection method.
- Because this product detects ultraviolet rays with high sensitivity, it may detect ultraviolet radiation not emanating from flames.
- Since ultraviolet rays occurring outside of the sensor's field of view may be detected due to reflection, please ensure to check the surrounding environment thoroughly before installation.
- This product does not have vibration resistance. If there are vibrations in the mounting structure, please avoid installing it.

Other Sources of Ultraviolet Radiation

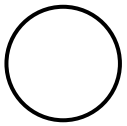
(Potential Causes of False Alarms):

- Halogen lamp
- Germicidal and insecticidal lamps
- Sparks generated from the pantograph of trains
- Discharge phenomena such as lightning
- Sparks generated from brushed motors
- Discharge lamps such as mercury lamps
- Discharge occurring between electrodes
- Other sources that generate ultraviolet rays
- Arc discharge caused by welding or plasma cutting

Name/Model Number and Accessories

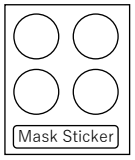


Accessories



Waterproof Packing

Pan Head Screw
3×20mm (4 pcs)

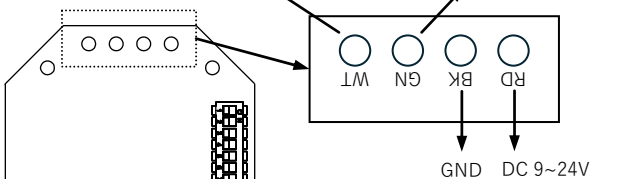


Mask Sticker

About the output

Flame detection Signal
*Voltage output 5-0V
*When flam is detected: 0V

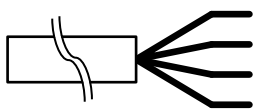
Software error Signal
*Open collector output
*Software error: transistor turns OFF
* **Be sure to connect the relay.**



***Regarding the Equivalent Circuit**:
Please refer to the specifications for details.

Wiring Method

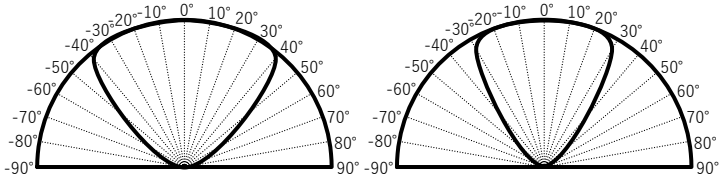
- This product is waterproof, so the power and output cables are directly wired from the housing. (Cable length: 50 cm)
- Cut the cables to the required length and securely connect them to the wiring using crimping or soldering.

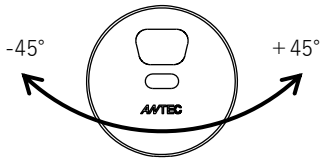


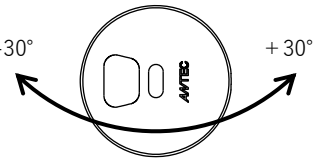
Red: Power (9V to 24V)
Black: GND
White: Flame detection Signal
Green：Software error Signal

Wiring size: 0.3 mm², 4-core cable, color-coded as specified above.

Illumination Characteristics



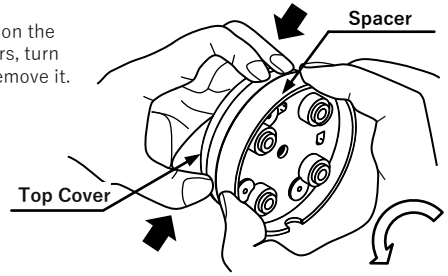




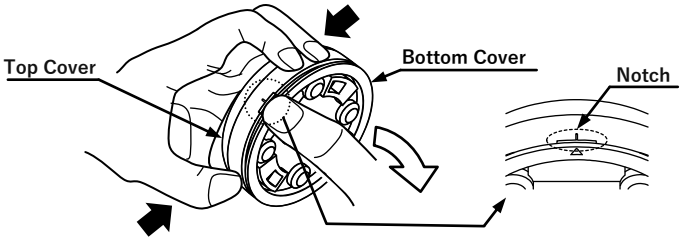
- The illumination characteristics are measured values in a dark room.
- The actual detection area may vary due to direct sunlight, reflected light, etc.
- Therefore, please conduct tests according to the environment before installation.

Mounting Method

- While pressing down firmly on the upper cover with your fingers, turn the spacer to the left and remove it.

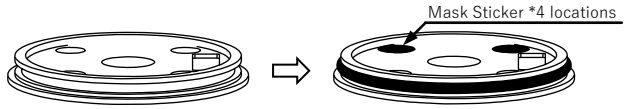


- While pressing down on the top cover with your fingers, hook your nails into the notch of the bottom cover and remove the cover.

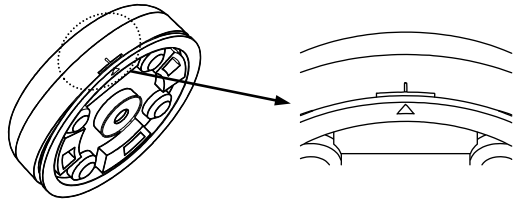


- Attach the waterproof packing included with the product to the bottom cover.

*If you are going to make a hole in the bottom cover and fix it with screws, apply the included Mask Sticker.
*Note that if the waterproof packing and Mask Sticker are not installed, waterproof performance will be impaired.

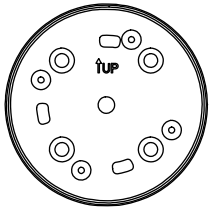


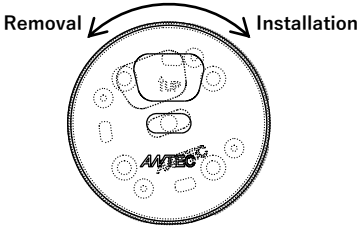
- Align the arrows on both the top and bottom covers and fit them together firmly.



- If using a spacer, ensure that " ↑ UP" is facing upwards.

* The cable outlet (notch) should face downwards.





Operation Check

- Turn on the power.
- Confirm that the power lamp (blue LED) lights up.
- Expose UV light in the detection area. (from a lighter, floodlight, etc.)
- After 4 seconds, the operation check lamp (red LED) will light up, and the external output will turn ON.
- The output will be maintained for 30 seconds after detecting flame and during flame detection.

Disclaimer

Please understand that we cannot assume any responsibility for fire accident, personal injury, disaster accident.
And we cannot also assume any responsibility for other damages which originated from incorrect use of the equipment, inadequate maintenance, or natural disaster.

Additional Notes:

- Regular inspections at a specialty store are recommended.
- Functions and specifications are subject to change without notice

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