



## Label detection KIM07Series

### User's Manual

• Thank you for choosing AkuSense products. Please read this instruction carefully before using the product.

• For your convenience, please keep this instruction carefully so that you can check it at any time.

## SYMBOL

The following symbols are important information in this manual, please be sure to observe the following.

	It is indicated that if you ignore the tag and erroneous operation, it may cause death or serious injury. In addition, significant material losses may also be suffered.
	There is the risk of causing malfunction or fire, please do not exceed the rated voltage when using.
	There is a risk of rupture, do not use AC power.
	Danger of burns at high temperatures.

## SAFETY PRECAUTIONS

To ensure your safety, be sure to observe the following.

- Do not use in flammable, explosive gas environment.
- Do not use in water, oil, chemical droplets environment, and exposure to steam environment.
- Please do not disassemble, repair, rebuild this product.
- Do not use beyond the rated voltage and current range.
- Do not use beyond the rated environment.
- Please pay attention to the polarity of the working power, do not take the wrong line.
- Please connect the load correctly.
- Do not short-circuit the load.
- Please do not use the case damaged. When discarded, dispose of as industrial waste.
- Do not use in direct sunlight.
- Depending on the operating conditions (ambient temperature, supply voltage, others), the temperature of the sensor surface may increase. In operation and cleaning, please note that there is a danger of burns.

## NOTICE FOR USE

- Do not use in the following places :  
Daylight direct place  
High humidity, easy to open places  
Place containing corrosive gases  
Vibration, shock directly to the product body of the place
- This product wire and power lines used in the same piping, will be disturbed, malfunction or even destroyed.
- The extension wire must use a wire with a cross-sectional area of 0.3 mm<sup>2</sup> or more and a length of 100 m or less. When the Korean S-mark certification model is used as a certification product, please set it below 10m.
- For the force applied to the wire, please refer to: below 40N, 0.1N.m torque less, 20N or less, and 3Kg below the bending.
- When the power is turned on, the product can be detected within 200ms. So if the load and product connected to a different power supply, you must first turn on the product power.
- When the power is turned off, the output pulse may be generated, so please cut off the power supply of the load or load line.
- Please do not use thinner, gasoline, acetone, kerosene and other solvents to clean up.

## PACKAGE CONTENTS

- Sensor 1 piece
- User's manual 1 piece

## OPERATION METHOD

### Detection setting

Place the label bottom paper in the detection slot marked with an arrow, press the '+' - button simultaneously with both hands until the indicator light flashes, then release at the same time; move the sensor on the label so that the arrow is on the label to be tested. Press the '-' button until the flashing light is off.

### Output setting

In the state where there is no detection object in the sensor slot, press the '+' - button at the same time, and then release it at the same time for 6 seconds to switch between L.ON and D.ON;

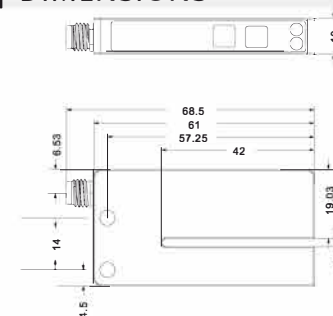
### Key lock

In the state where there is no detection in the sensor slot, press the '+' - button at the same time, and then release it for 3 seconds, then you can switch the button lock and unlock.

## TECHNICAL SPECIFICATIONS

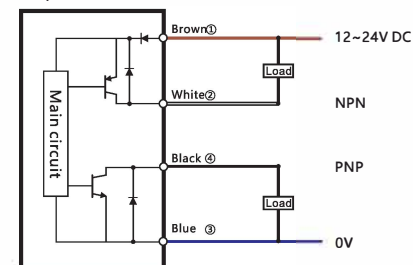
No.Model	KIM07-0204NP
Detection distance	3mm
Slot depth	42mm
Slot width	3mm
Llight source	Infrared light (940nm)
Switch mode	Selectable L.on, D.on
Operating voltage	12~24V DC±10%
No-load current	40mA
Load current	100mA
Response frequency	10KHz
Response time	≤20us
Protective circuit	Reverse polarity protection, Output short circuit protection, Interference suppression
Protection degree	IP65
Material	Aluminum
Wiring	M8 4-pin plug
Weight	35g
Output method	NPN/PNP
Ambient brightness	Sunlights10000Lux

## DIMENSIONS



## CIRCUIT DIAGRAM

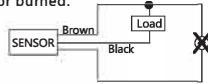
NPN/PNP



## DISTRIBUTION CONSIDERATIONS

### Voltage

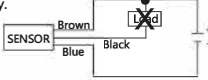
Do not exceed the voltage range above the use of input over the voltage range or DC power input AC power supply will be broken or burned.



### Load short circuit

Do not short-circuit the load will be broken or burned.

The load short-circuit hold function is the function that is used within the rated voltage under the correct polarity of the power supply.



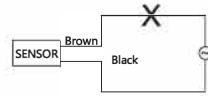
### Miswiring

The polarity of the power supply, etc. Do not match the wrong line, fear of cracking or burning.



### No load connection

No load power supply directly into the internal prime fear will be broken or burned. So please add the load and then wiring.



## REGULAR MAINTENANCE CHECK

During the use of regular inspection, maintenance is necessary, to ensure the normal operation of the machine. Periodically check items as follows:

- When the object is detected, whether the switch is in the distance, whether there is a loose phenomenon, whether there is a tilt correction, whether the inspection has changed.
- Wiring or other connection lines, whether the contact is normal, or no break.
- Does the sensor face dust?
- Check operating temperature, and the surrounding environment is suitable.
- Installation space, whether there has difference, such as vibration, electrical leakage ...

Other :

When the power is applied, the sensor needs 100ms lead time, in order to achieve stable output of the sensor, so during this time, do not operate the sensor. Avoid being applied to the outside (except for shelter).

- Avoid direct contact with organic solvents.
- To prevent the detection surface by the impact of objects, because the sensing surface is very fragile.
- When the device or motion switching power supply can not be too pull, move.



## PRECAUTIONS

- Make sure that the power is turned off when connection.
- Make sure that the supply voltage changes within the rated range.
- If the power supply is supplied by a commercial switch regulator, make sure that the power supply ground terminal (F.G) is grounded.
- Be sure to ground the device ground terminal (F.G).
- Do not use when power on within 0.5s.
- Do not run the line with a high voltage line or a power cord or in a wire tube, which may cause malfunction due to induction.
- Avoid dust and water vapor.
- Do not expose the sensor to direct contact with water, oil, grease or organic solvents, such as thinner.