

# ELMARK<sup>®</sup>

## ST02A

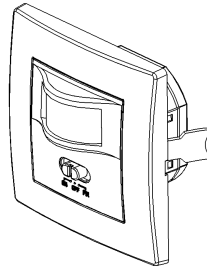
### Infrared Motion Sensor



### Instruction

#### Welcome to use ST02A Infrared motion sensor!

The product adopts good sensitivity detector, integrated circuit. It gathers automatism, convenient safe, saving-energy and practical functions. It utilizes the infrared energy from human as control-signal source, it can start the load at once when one enters detection field. It can identify day and night automatically. It is easy to install and used widely.



#### **SPECIFICATION:**

Power Source: 220 -240V/AC

Power Frequency: 50Hz

Ambient Light: 3-2000LUX (adjustable)

Time-Delay : min:10sec±3sec

Max:7min±2min

Rated Load: 500W (incandescent lamp)

100W (energy-saving lamp)

Detection Distance: 9m max (<24°C)

Detection Range: 160°

Working Temperature:-20~+40°C

Working Humidity :< 93%RH

Installation Height: 1m-1.8m

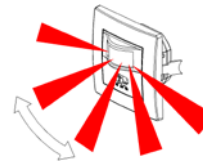
Power Consumption:0.45W (work)

0.1W (static)

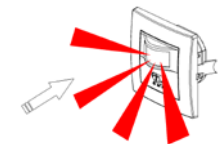
Detection Motion Speed: 0.6-1.5m/s

#### **FUNCTIONS:**

- Can identify day and night: The consumer can adjust work ambient light. It can work in the daytime and at night when LUX is adjusted on the maximum position. It can work in the ambient light less than 3LUX when it is adjusted on the minimum position. As for the adjustment pattern, please refer to the testing pattern.
- Time-delay is added continually: When it receives the second induction signals after the first induction, it will compute time once more on the rest of the first time-delay basic.(set time)
- Time-delay adjustment: It can be set according to the consumer's desire. The minimum time is 10sec±3sec. The maximum is 7min±2min.
- The switch: "ON"、"OFF"、"PIR".



Good sensitivity

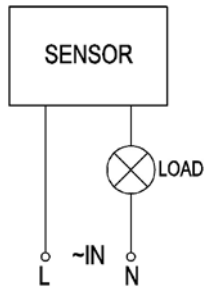


Poor sensitivity

### INSTALLATION: (see the diagram)

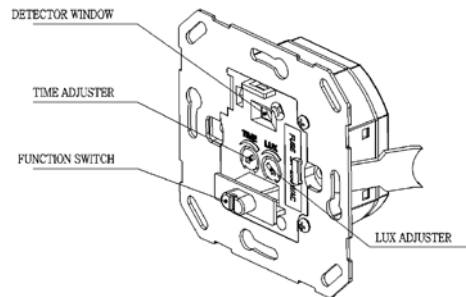
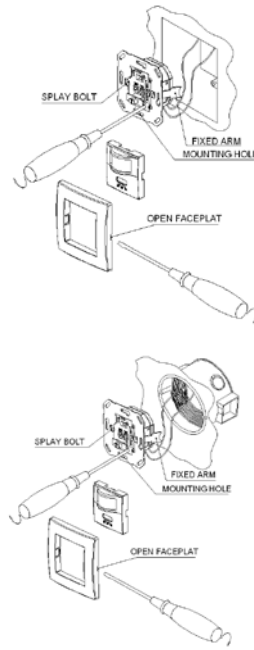
- Shut off the power.
- Loosen the connection column on the bottom of sensor, plug the wire into connection hole, tighten the screws; unload the surface of sensor, connect the sensor into connection box.
- If you want to install it in quadrate connection box, penetrate the setscrew into installation hole, aim at the installation hole on connection box, then tighten the screw; if you want to install it in circular one, you can use the same way as the quadrate, also adjust the sensor's position, tighten the setscrew on surface, then the fixing arm will open automatically, fasten the connection box.
- Switch on the power then test it.

### CONNECTION-WIRE DIAGRAM (see the following Fig)



### TEST:

- Set the function switch to "ON", turn the TIME knob anti-clockwise on the minimum after taking the board-face off. And turn the LUX knob clockwise to maximum (if you test it in daylight).
- Switch on the power, the lamp should be on.
- Set the function switch to "OFF", the lamp should be off immediately, all functions should be in "stop" state.
- Set the function switch to "PIR", after 30sec later, it enters into working position. The lamp will be turned on after receiving the inductor signal.20sec. Under no inductor signal condition, the lamp should be off within 5~10sec.



- Set "LUX" anti-clockwise to minimum, after it is off when there is no inductor signal condition, the lamp should be off in the daytime, but if you use a opaque object to cover sensor, the lamp should be on, then off within 5~10sec.

**Note: when testing in daylight, please turn LUX knob to maximum position, otherwise the sensor lamp could not work!**

### NOTES:

- Electrician or experienced human can install it.
- The unrest objects can't be regarded the installation basis-face.
- There aren't hinder or unrest objects effecting detection in front of the detection window.
- Avoid installing it near temperature alteration zones, for example: air condition, central heating etc.
- Please don't open the case for your safety if you find the hitch after installation.
- If there are some difference between instruction and the function the product has, please give priority to product and sorry not to inform you additionally.

### SOME PROBLEM AND SOLVED WAY:

- The load don't work:
  - a. check the power and the load.
  - b. If the load is good.
  - c. Please check if the working light corresponds to the ambient- light.
- The sensitivity is poor:
  - a. Please check if in front of the detection window there is hinder that effect to receive the signals.
  - b. Please check the ambient temperature.
  - c. Please check if the signal source is in the detection field.
  - d. Please check the installation height.
  - e. If the moving orientation is correct.
- The sensor can't shut off the load automatically:
  - a. If there is continual sensor signal in the detection field.
  - b. If the time-delay be set to the longest.
  - c. If the power correspond to the instruction.
  - d. If the temperature change near the sensor, such as air condition, central heating etc.