

TRONIX

213-504

Laser Sensing Switch



Sensor

Features

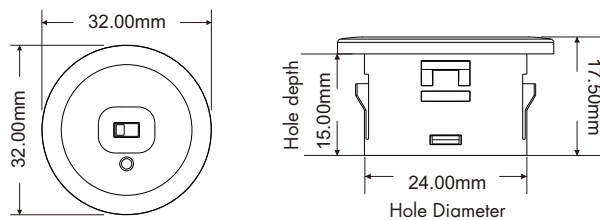
- Laser sensing switch, 12-24VDC input, constant voltage output, connect to low voltage LED strip.
- When the sensor head detects the person or object in front of it, the light will be turned on.
- Detection distance 0.05-2.5m, sensing angle 20°.
- Auto ranging and manual ranging modes are available.
- Set the sensing detection distance by powering up or pressing the key.
- Six delay off times can be set (5, 10, 30, 60, 180, 0s).
- Rapid fading of light at the moment of switching.
- Suitable for lighting staircases, courtyards, aisles, corners, corridors, etc.

CE RoHS

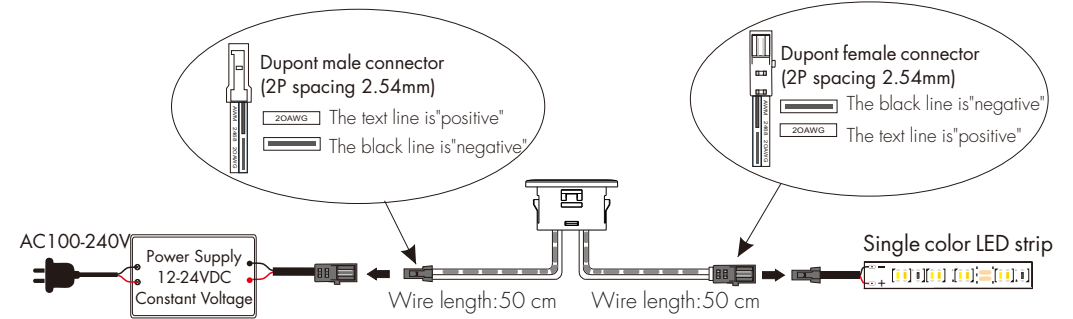
Technical Parameters

Input and Output		Environment and Protection		Safety and EMC	
Input voltage	12-24VDC	Operation temperature	Ta: -20 °C ~ +55 °C	EMC standard	EN IEC 55015 EN IEC 61547
Output voltage	12-24VDC	Protection	Reverse polarity		
Output current	1.5A	Package		Safety standard	EN 61347-1/-2 EN 62493
Output power	18-36W	Size	80(L)x45(W)x30(H)mm		
PWM frequency	2000Hz	Gross weight	0.032kg	Certification	CE RoHS

Dimension



Wiring Diagram



SET Key Function

Detection distance setting:

The detection distance range is 0.05-2.5m, and switch auto or manual ranging modes by double click the SET key.

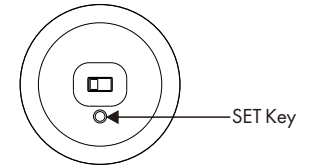
Auto ranging (factory default mode):

The distance is automatically detected and set every time the power is on, and the distance parameter is not memorised.

If there is no obstacle in front of the sensor head at the time of power-on, the detection distance is automatically set to 2.5 m.

If there is an obstacle in front of the sensor head at the time of power-on, for example: the sensor head is 1 m away from the wall in front of it, the detection distance is automatically set to 1 m.

You can also set the detection distance by pressing the SET key within 60 seconds of powering up the sensor head, the distance parameter is only for temporary use and is not memorised.



Manual ranging:

Double click the SET key after power on, switch to manual distance measurement mode, the output LED blinks 3 times.

Then short press the SET key, the distance measurement will be completed within 2 seconds and the distance parameter will be saved, the output LED will flash 1 time.

Double click the SET key again to return to automatic ranging mode, the output LED will flash 2 times.

Manual ranging remembers the last saved distance parameter, which is suitable for the scenarios where the detection distance needs to be fixed (e.g. locking the detection range after the device is installed).

Note: When short press the SET key to measure the distance, people should not block in front of the sensor head.

Delay off time setting:

Within 60 seconds of powering up the sensor switch, long press the SET key for 2 seconds to set 6 delay off times (5, 10, 30, 60, 180, 0 seconds).

When the delay off time is set to 5 seconds, the indicator and output LED will flash once;

When the delay off time is set to 10 seconds, the indicator and output LED will flash twice;

When the delay off time is set to 30 seconds, the indicator and output LED will flash 3 times;

When the delay off time is set to 60 seconds, the indicator and output LED will flash 4 times;

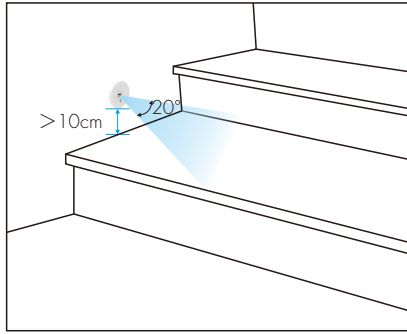
When the delay off time is set to 180 seconds, the indicator and output LED will flash 5 times;

When the delay off time is set to 0 seconds, the indicator and output LED will flash 6 times;

Note: 1. The first long press after powering up the sensor switch does not change the delay off time, but only indicates the current delay off time by flashing the light.

2. The factory default delay off time is 30 seconds, i.e., after the human body/objects leave the sensing range, the light will be turned off after 30 seconds.

Sensor Switch Installation Position



When installing on stairs, install at a height of 10cm or more, as far away from the foot elevation as possible. Make sure that your foot steps up just enough to block the laser and trigger the sensor to light up.

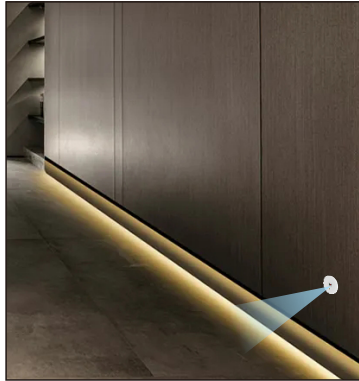
• Multiple applications on stairs



When using multiple sensor switch on stairs, it is recommended to set the delay off time of all laser sensor switch to 5 or 10s. Realize each step light control.

Sensor Switch Installation and Application

• Single application



For a single application, it is recommended to set the delay off time of the laser sensor switch to 30, 60 or 180s. Realize people come and light up, and turn off the light at a delayed time when people leave.

Installation Precaution

1. The sensing switch should be installed in a dry environment and keep away from windows, air conditioner and fans.
2. The sensing switch should be installed in the correct direction and angle.
3. There should not be shelter(screen, furniture, large bonsai) within the range of detection.
4. Avoid touching the surface of the detector and clean the surface of the optical lens with a damp soft cloth or cotton cloth regularly to prevent dust from affecting the sensitivity.
5. This product is not fireproof, do not immerse in water or use near fire source.

• Multiple applications in corridors



For multiple applications in corridors, it is recommended to set the delay off time of all laser sensor switch to 5 or 10s. Realize the sequential switching control of multiple lights according to the direction of human walking.