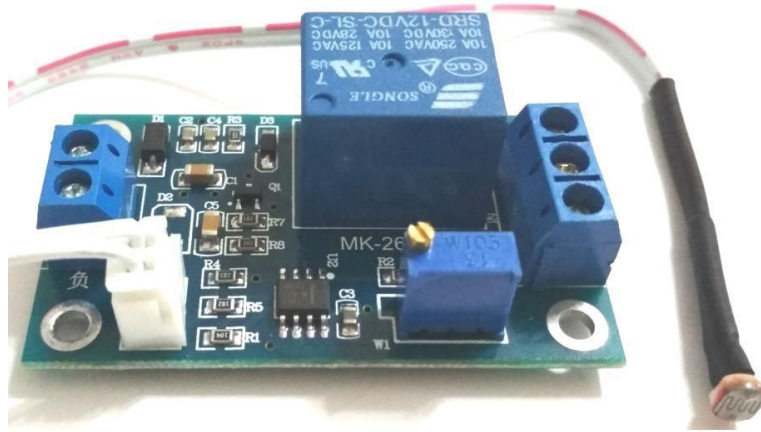


Photo Sensor Relay Module

This Photo Sensor Switch will engage a relay when light level drop or rise below a certain level. This module is great for turning on lighting at night and back off again when the morning sun returns. Light intensity detection is adjusted via potentiometer control (Sensitivity Adjustment). When the circuit is triggered, the output will activate the onboard relay which can directly control AC or DC loads.



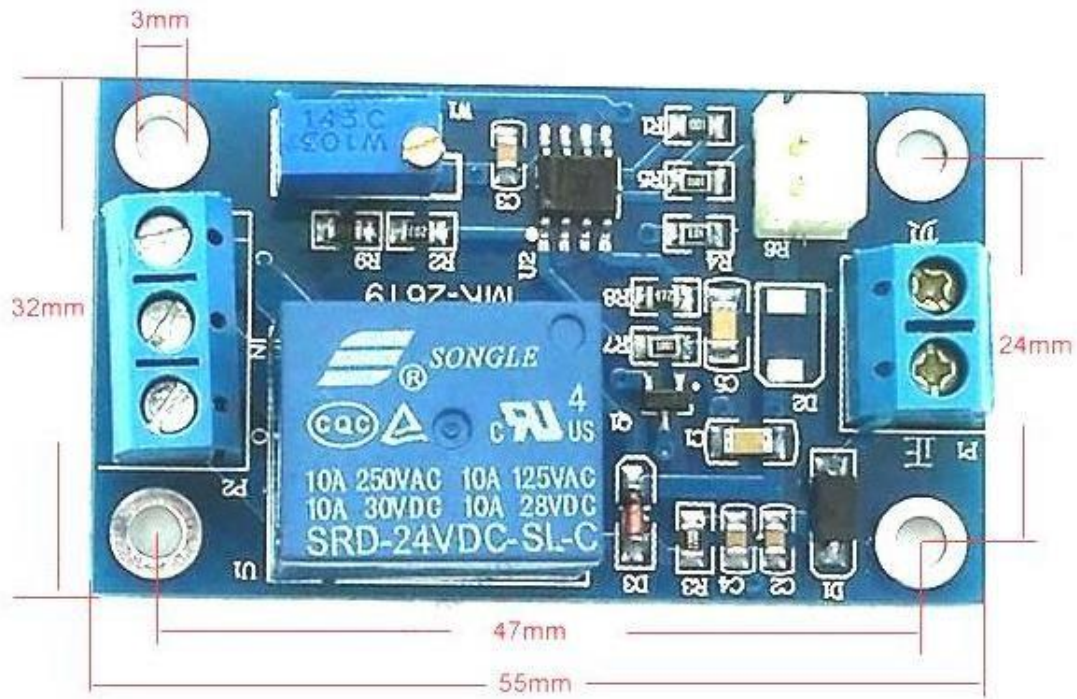
SKU: [SSR-1015](#)

Brief Data:

- Operating Voltage: 12VDC.
- Sensor: Light Dependent Resistor LDR.
- Sensor Cable Length: 19cm.
- Maxim Load: AC250V/10A, DC30V/10A.
- Mounting: 4x fixing holes for easy installation.
- Module Dimensions: 5cm x 2.7cm x 2cm

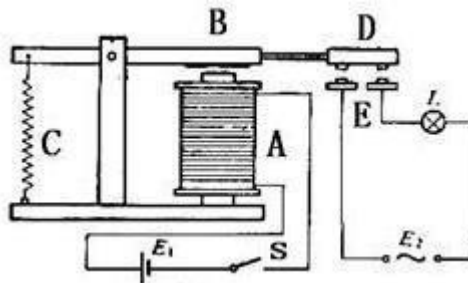
Mechanical Dimension:

Unit: mm



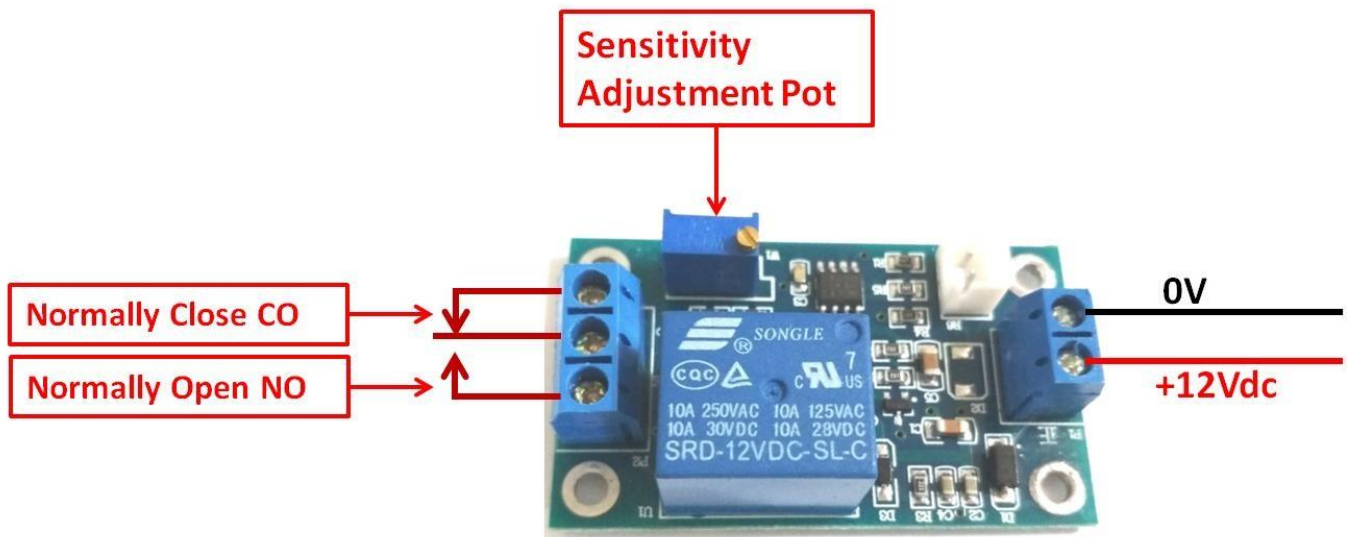
Operating Principle:

See the picture below: A is an electromagnet, B armature, C spring, D moving contact, and E fixed contacts. There are two fixed contacts, a normally closed one and a normally open one. When the coil is not energized, the normally open contact is the one that is off, while the normally closed one is the other that is on.



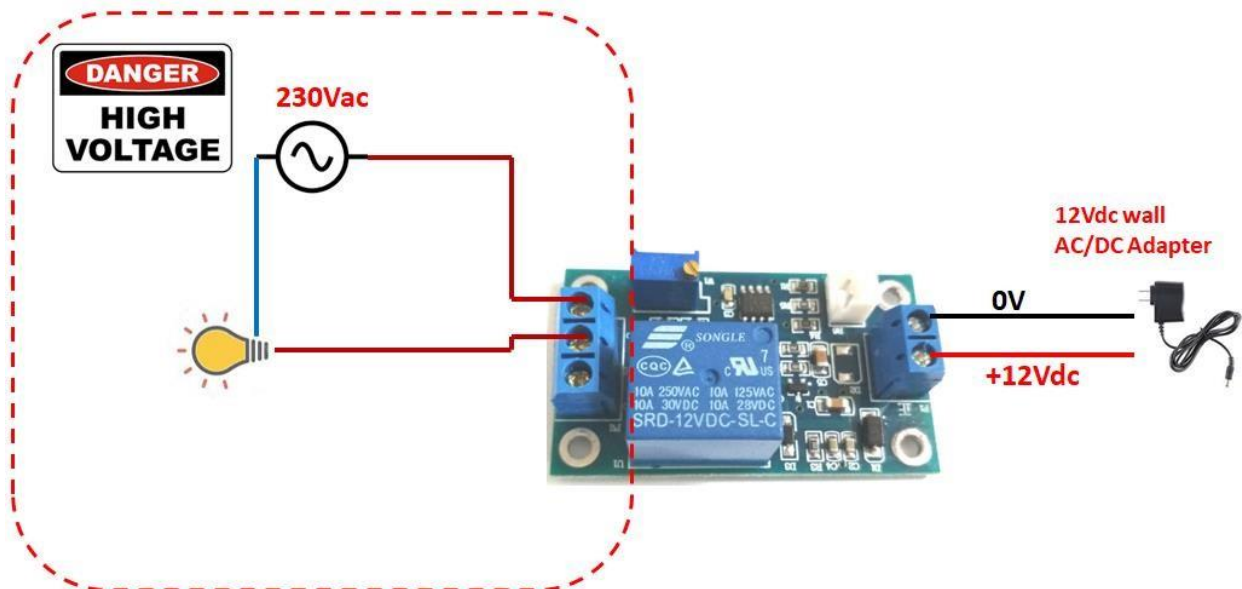
Supply voltage to the coil and some currents will pass through the coil thus generating the electromagnetic effect. So the armature overcomes the tension of the spring and is attracted to the core, thus closing the moving contact of the armature and the normally open (NO) contact or you may say releasing the former and the normally closed (NC) contact. After the coil is de-energized, the electromagnetic force disappears and the armature moves back to the original position, releasing the moving contact and normally closed contact. The closing and releasing of the contacts results in power on and off of the circuit.

Functional Block Diagram:



Application Examples:

In the below connection, the lamp will automatically switch on when night time fall. When ambience light detected during day time, the relay will activated and causing the lamp to switch off. This connection well suit for home auto lamp On/Off for day-time and night time.



Connection for Load and Module Using the same power supply:

