

Intelligent Infrared Reflective Bathroom Induction Switch

Introduction

Intelligent infrared reflective bathroom induction switch is controlled by microprocessor (MCU). It can be programmed online to meet the application requirements and use scenarios of different bathroom products, such as faucets, urinals, toilet flushers, induction water tanks, medical switch faucets, showers, etc.

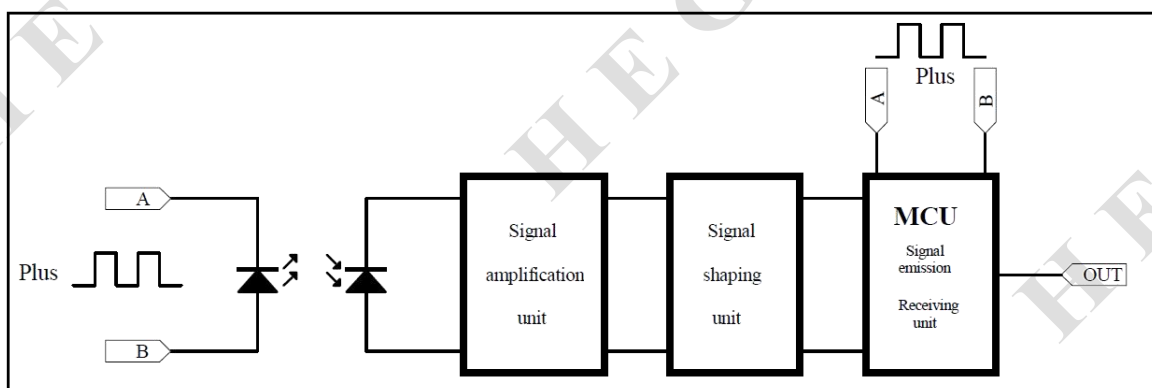
This product integrates infrared receiver, transmitter, MCU, signal processing unit and output control unit. It has strong anti-photoelectric interference ability, stable and reliable performance, low power consumption and small size.

The overall dimensions, sensing distance and sensing range of the product can be customized according to customer requirements.

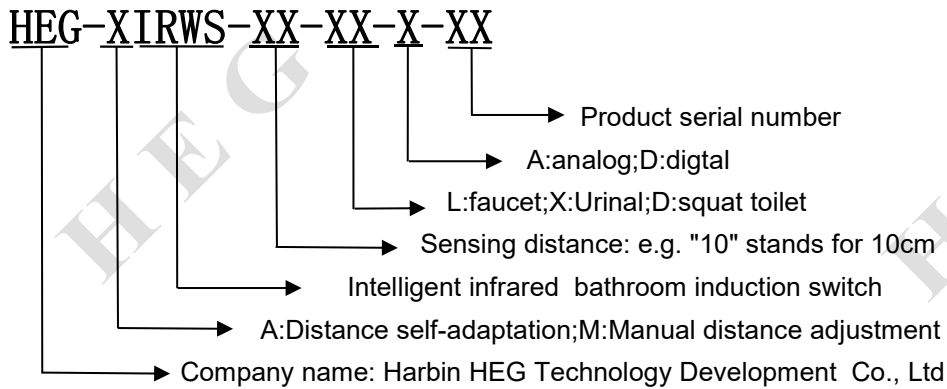
Working Principle

The infrared transmitter emits coded infrared signals. When the detection direction encounters obstacles (reflecting surface, usually human hands), the reflected infrared light is received by the receiving device, processed by the signal processing unit, and then enters the MCU for calculation and processing. When it is determined that there are obstacles in front, the control signal is output to control the opening and closing of bathroom products, such as water outlet and water closing of faucets.

Functional Block Diagram



Model Naming Rules



Product Features

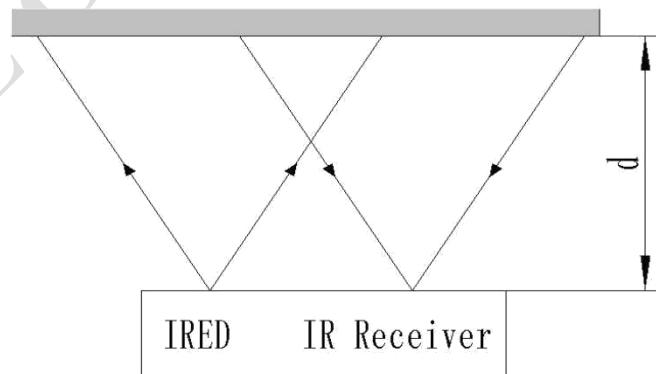
- 1、 Volume: A variety of sizes and shapes are available;
- 2、 Low power consumption: Average working current is less than or equal to 20 μ A;
- 3、 Sensing distance (hand): 5-50cm (adjusted by remote control), Please see Instructions for product use for details;
- 4、 Light immunity: Strong immunity to ambient light.

Main Technical Parameters of Products

Main Parameter	Numerical Value	Unit	Remarks
Operating Voltage (DC)	4.4-6.5	V	Four 1.5V dry batteries or 5V switching power supply are recommended
Average Working current	≤ 20.0	μ A	Test conditions: VDD=6.5V Detection period:320ms
Infrared Light Wavelength	940	nm	IF=20mA
Signal Output Mode	GPIO mode,width=40	ms	Customizable
Output Drive Capability	1.8	A	Test conditions: VDD=6.5V
Supply Voltage Detection	Below 4.4V, the LED is flashing continuously, the circuit is no longer working, and the battery needs to be replaced	/	/
Outline Dimension	A variety of sizes and shapes are available	mm	/
Port	5P waterproof port	mm	Customizable
Inductive Distance	d=40-75	cm	Test conditions:VDD=4.4-6.5V; Panel transmittance $\geq 80\%$; It can be adjusted by potentiometer

Sensing Angle	10-60	degree	Customizable angle
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Test Method



HEG-XIRWS-XX-XX-X-XX

Instructions for Product Use

Sensing distance: 5-50cm adjustable. The sensor can be triggered to enter the automatic learning mode by the "Automatic Distance" button of the infrared remote controller, and the detection distance of the sensor can be adjusted in real time. The method is as follows:

1. Place the obstacle/hand in the position to be adjusted and keep it still;
2. Aim the remote controller at the induction switch and press the "automatic distance" button;
3. When the red light flashes quickly, the induction switch enters the distance adjustment state to keep the obstacle/hand in a static state;
4. When the indicator light flashes slowly, the distance adjustment of the induction switch is successful;
5. When the adjustment distance exceeds the maximum induction distance by 50cm, the induction switch keeps the original distance.

This module interface is waterproof connector, which can be customized.

Note: Do not connect the positive and negative electrodes in reverse, so as not to burn the module.

Product outline size(optional,Customizable)

HEG[®]



Model: 01

HEG[®]



Model: 02

HEG[®]



Model: 03

HEG[®]



Optional