

# PIR Digital Sensor SPIR01A & SPIR02A

Pyroelectric Infrared Sensor for Movement Detection

## General Description

Single-channel or dual-channel digital sensor, DOCl single-line communication, external MCU to process the original signal, more flexible and diverse processing methods. In addition to providing 16-bit infrared digital signals, the sensor can be used for waking-up MCU to reduce the MCU power consumption. The sensor can be customized for more flexible features and better results.

## Features and Benefits

- TO-5 package, built-in the digital chip
- Extra big window size
- Super anti-interference capability

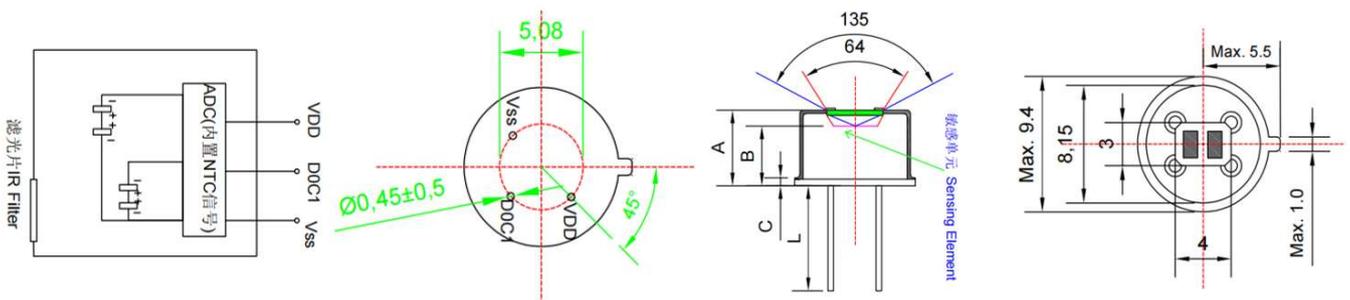
## Applications

- Intruder Alarm
- Smart Home

## Electrical Characteristics

Symbol	Parameter	Conditions	SPIR01A	SPIR02A	Unit
R <sub>typ</sub>	Response Rate, Typical	100°C, 1Hz, 25°C	13	13	mV V <sub>pp</sub>
M <sub>max</sub>	Matching degree, maximum		15%	15%	100°C, 1Hz, 25°C
N <sub>max</sub>	Noise, maximum	25°C, 0.3~3Hz	80	80	μV V <sub>pp</sub>
N	Noise, Typical	25°C, 0.3~3Hz	35	35	μV V <sub>pp</sub>
Fov.H	Field of View, Horizontal		135°	135°	
Fov.V	Field of View, Vertical		123°	123°	
V <sub>s</sub>	S Pin Voltage	V <sub>dd</sub> =3V	NA	NA	V
V <sub>op</sub>	Working voltage		2.5~5.5	2.5~5.5	V
I <sub>dd</sub>	Static Current, Typical	25°C, V <sub>dd</sub> =3V	10	10	μA

## Mechanical Drawings



## Revision History

Revision Number	Release Date	Description
Rev1	2021/7/21	Initial Release