

ICS 29.120.40
CCS K 60



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44299-2024

**Methods of measurement and declaration of the detection
range of detectors - Passive infrared detectors for major and
minor motion detection**

探测器探测范围的测量方法和声明 用于大和小运动探测的被动式红外探测器
(English Translation)

Issued on: August 23, 2024

Implemented on: August 23, 2024

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is equivalent to IEC 63180:2020 "Measurement methods and declarations of detection range of passive detectors for large and small motion detection" Infrared Detector.

The following minimal editorial changes were made to this document.

Corrected the editorial error of the 3D model example in Figure 20 of IEC 63180:2020, changing the "y-axis" in the middle to "z-axis".

To increase operability (see Figure 20).

Introduction

Passive infrared detectors are an important component of energy-efficient buildings. They allow loads to be switched on, off and controlled to achieve the optimum level of comfort.

Fit and energy efficiency.

The detectors covered by this document are motion detectors using passive infrared (PIR) technology in electronic control gear and appliance switches.

For standalone (direct control of one or more applications) or as part of Home and Building Electronic Systems (HBES), Building Automation and Control in the case of HBES/BACS, the final operation depends on the program of the relevant HBES/BACS.

sequence.

The purpose of these detectors is to detect the movement of people.

The detectors connected to the system may also be assigned other tasks. status reporting, power consumption, event reporting, scenarios, etc. These additional functions not reflected in this document.

To achieve energy saving and comfort goals, the detectors need to operate accurately. In addition, the detection area needs to be accurate enough to integrate the detector selects the correct one for the desired operation.

This document provides a measurement method and test procedure for manufacturers to declare and verify the detection performance of detectors within the detection area.

Measurement methods and declarations of detector range Passive for large and small motion detection Infrared detector

1 Scope

This document specifies the general requirements, test environment, test equipment, and test methods for passive infrared detector measurements for large and small motion detection.

equipment, test procedures and expression of test results.

This document applies to the measurement methods and declarations of detection range of passive infrared detectors used for large and small motion detection.

Can be standalone (directly controlling one or more applications) or as part of a Home and Building Electronics System (HBES), Building Automation Part of a battery and control system (BACS) or similar system.

This document specifies a method of measurement and test procedure for the detection range of detectors used to declare and verify the detection range of detectors in electronic control devices and appliances.

Detection zone of motion detectors in switches using passive infrared technology.

This document also specifies a uniform method for expressing test results.

The purpose of the detectors covered by this document is to detect large and small movements of people.

2 Normative references

This document has no normative references.

3 Terms and definitions

The following terms and definitions apply to this document.

The URLs for terminology databases used for standardization maintained by ISO and IEC are as follows.

infrared

Light radiation with a wavelength longer than visible radiation, that is, light radiation with a wavelength from about 780 nm to 1 mm.

[Source. GB/T 14733.12-2008,731-01-05] 3.2 passive infrared detector
passive infrared detector an electronic detector that measures the infrared light emitted by a human body within its field of view.

Motion detector

A unit that detects movement and can be used as a component of an electronic control device or appliance switch.

Note: "Electronic control gear" is a general term covering electronic switches, home and building electronic systems/building automation and control systems (HBES/BACS) switches and electronic extension units.

major motion

Movement of a person walking into or within an area.