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

GB 4715-2024

Replacing GB 4715-2005

**Point-type smoke detectors using scattered light, transmitted
light or ionization**

点型感烟火灾探测器

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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: This document replaces GB 4715-2005 "Point-type smoke detectors": Compared with GB 4715-2005, except for structural adjustments and editorial In addition to the modifications, the main technical changes are as follows:

- a) Added the classification of point-type photoelectric smoke detectors (see 4:2);
- b) Added terminal requirements (see 5:3:3);
- c) Changed the range requirements for the response threshold of point-type photoelectric smoke detectors (see 5:7, 4:2 of the:2005 edition);
- d) Deleted the slow developing fire response performance (see 3:8 of the:2005 edition);
- e) Change the constant humidity and heat (operation) test to the alternating humidity and heat (operation) test (see 5:12, 4:10 of the:2005 edition);
- f) Added requirements for the contamination alarm function of the sensing components of point-type photoelectric smoke detectors (see 5:15);
- g) The light source type of the flash device has been changed (see Appendix C, Appendix C of the:2005 edition): Please note that some of the contents of this document may involve patents: The issuing organization of this document does not assume the responsibility for identifying patents: This document is proposed and coordinated by the Ministry of Emergency Management of the People's Republic of China: The previous versions of this document and the documents it replaces are as follows:

---First issued as GB 4715-1984 in 1984, first revised in:1993, second revised in:2005;

---This is the third revision: Point type smoke detector

1 Scope

GB 4715-2024 is the Chinese national standard on point-type smoke detectors using scattered light, transmitted light or ionization, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 April 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2025. Classification: ICS 13.220.20, CCS C81. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the classification, requirements, inspection rules and markings of point type smoke detectors and describes the corresponding test methods: This document applies to the design, manufacture and inspection of point-type smoke detectors used in industrial and civil buildings:

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document: For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document:

GB 4716 Point-type heat-sensing fire detector

GB/T 9969 General principles for instructions for use of industrial products

GB 15631 Special fire detectors

GB/T 16838 Environmental test methods and severity levels for fire protection electronic products GB/T 17626:

2 Electromagnetic compatibility test and measurement technology Electrostatic discharge immunity test GB/T 17626:

3 Electromagnetic compatibility test and measurement technology Radio frequency electromagnetic field radiation immunity test GB/T 17626:

4 Electromagnetic compatibility test and measurement technology Electrical fast transient

pulse group immunity test GB/T 17626:

5 Electromagnetic compatibility test and measurement technology Surge (impact) immunity test GB/T 17626:

6 Electromagnetic compatibility test and measurement technology - Immunity to conducted disturbances induced by radio frequency fields

ISO 12103-1:2016 Pollutants for filter evaluation in road vehicles Part 1: Arizona test dust

3 Terms and definitions

There are no terms or definitions that require definition in this document:

4 Categories

1 According to the working principle, it can be divided into:

- a) Point-type photoelectric smoke detectors;
- b) Point type ionization smoke detector: 4:

2 Point-type photoelectric smoke detectors can be divided into the following types according to their response threshold:

- a) Type A: Response threshold is adjustable;
- b) Type B: The response threshold is not adjustable:

5 Requirements

1 General requirements Point type smoke detectors (hereinafter referred to as detectors) shall meet the relevant requirements of this chapter and be tested in accordance with the provisions of Chapter 6 to confirm