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

GB 4716-2024

Replacing GB 4716-2005

Point type heat fire detectors

点型感温火灾探测器

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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 is required. This document replaces GB 4716-2005 "Point-type heat-sensitive fire detectors". Compared with GB 4716-2005, except for structural adjustments and editing In addition to the changes in performance, the main technical changes are as follows:

- a) Added "Typical Application Temperature", "Maximum Application Temperature", "Operation Temperature", "Resettable Detector" and "Non-Resettable Detector" term and definition of "device" (see Chapter 3);
- b) Added fault monitoring requirements for temperature sensing elements (see 5.3.3);
- c) Added protection performance requirements for temperature sensing elements (see 5.3.4);

- d) Added requirements for data output function (see 5.3.5);
- e) Added requirements for wiring terminals (see 5.3.7);
- f) Added the requirement for the change in response time of any two detectors before environmental testing (see 5.11);
- g) Added the requirements for the upper limit of the response time after environmental testing (see
- h) Added the requirements for low temperature (operating) test temperature level (see 5.13);
- i) Added drop test requirements (see 5.16);
- j) Added requirements for the durability of markings (see 8.3);
- k) Added drop test device (see Appendix B). 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 National Fire and Rescue Administration. The previous versions of this document and the documents it replaces are as follows: --First issued as GB 4716-1984 in 1984, first revised in.1993, and second revised in.2005; --This is the third revision. Point type heat fire detector

1 Scope

GB 4716-2024 is the Chinese national standard on point type heat fire detectors, 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 28 November 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 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 defines the terms and definitions of point-type heat-sensing fire detectors (hereinafter referred to as "detectors"), and specifies the classification, requirements, inspection regulations, and The requirements for rules, markings and instructions for use describe the corresponding test methods. This document applies to the design, manufacture and inspection of point-type heat-sensing fire 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 4715 Point-type smoke detectors

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

GB 12978 Inspection Rules for Fire Protection Electronic 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 Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Typical application temperature Under normal monitoring conditions, the ambient temperature at which point-type heat-sensitive fire detectors can operate stably for a long time.

3.2 maximum application temperature Under normal monitoring conditions, the ambient temperature that a point-type heat-sensitive fire detector can withstand and operate stably for a short period of time.

3.3 Static response temperature The temperature at which a point-type thermal fire detector can send out a fire alarm signal when the temperature rises at an extremely small rate.

3.4 resettable detector After responding and when the condition that caused the response ceases, the detector can return from the alarm state to the normal monitoring state without replacing any components. Detector.