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

GB 15322.2-2026

Replacing GB 15322.2-2019

**Combustible gas detectors - Part 2: Household combustible gas
detectors**

可燃气体探测器 第2部分：家用可燃气体探测器

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1 Scope

The 2026 edition of Part 2 of GB 15322 replaces the household gas detector standard with a longer and more structured text: twenty-five clauses of technical requirements and thirty-three test methods, against the twenty-three test groups of the 2019 edition, plus an identification code in a normative annex. The subject is unchanged - the alarm fitted in a domestic kitchen against a town gas or LPG leak - but the requirements now cover connected and networked detectors as well as the standalone units the earlier text assumed. It replaces GB 15322.2-2019 from 1 August 2027. Issued on 28 January 2026. 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 edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This document defines the terminology and definitions for household combustible gas detectors, and specifies their classification, technical requirements, inspection rules, marking, and packaging. The description of the corresponding experimental methods is as follows: This document applies to household applications for detecting combustible gases such as natural gas, liquefied petroleum gas, and manufactured gas, as well as their incomplete combustion. The design, manufacture and inspection of household combustible gas detectors (hereinafter referred to as detectors).

2 Normative references

4. Classification Classified by work method.

- a) System-type detector;
- b) Stand-alone detector.

5 Technical Requirements

5.1 General Requirements The detector shall meet the relevant requirements of Chapter 5 and be tested in accordance with the provisions of Chapter 6 to confirm its compliance with the requirements of Chapter 5.

5.2 Appearance The detector surface should be free from corrosion, coating peeling, and blistering, and should be free from obvious scratches, cracks, burrs, or other mechanical damage. Fasteners should not be loose.

5.3.1 General Requirements

5.3.1.1 Standalone detectors should be powered by 220V AC voltage or batteries; system detectors using wired communication should be powered by 48V AC voltage. For systems powered by DC voltages of 220V and below, and using wireless communication, the detector should be powered by 220V AC voltage or a battery; external direct current... System detectors powered by a current-powered power supply should be powered by a combustible gas alarm controller and should have reverse polarity protection measures; those using battery power... The electrical detector should have a battery mounting structure to prevent reverse polarity connection, and there should be a clear warning sign when the battery is removed.

5.3.1.2 The alarm setpoint of the detector should be within the range of 5% LEL to 25% LEL, and its upper limit should not be less than twice the alarm setpoint and not less than... For detectors that detect carbon monoxide at 15% LEL, the alarm setting should be in the range of 150×10^{-6} (volume fraction) to 300×10^{-6} (volume fraction).

5.3.1.3 When the concentration of combustible gas in the monitored area reaches the alarm set value, the detector should be able to emit a combustible gas alarm sound and light signal. After the environment returns to normal, the detector should automatically (or manually) return to normal monitoring status within 60 seconds.

5.3.1.4 The enclosure protection rating (IP code) of the detector shall meet the requirements of IP30 rating specified in GB/T 4208-2017.

5.3.1.5 The model designation of the detector shall comply with the provisions of Appendix B of GB 15322.1-2026.

5.3.1.6 When the detector uses a non-metallic material casing, the casing's flammability shall meet the requirements of Appendix C of GB 15322.1-2026. Requirements for combustion performance testing.

5.3.2 Indicator Lights

5.3.2.1 The detector surface should have indicator lights to show its normal monitoring, fault, combustible gas alarm status, and gas sensor status. Lifespan status. The normal monitoring status indicator should be green; the fault or gas sensor lifespan expiration status indicator should be yellow; the alarm status indicator... It should be red.

5.3.2.2 Indicator lights should have Chinese function descriptions.

5.3.2.3 In an environment with an illuminance of no more than 500 lx, when the indicator light is on, the distance to the detector should be within a 22.5° viewing angle directly in front of it. The status of the indicator light should be clearly visible at a distance of 3 meters.

5.3.3 Display Devices Detectors with concentration display function should have their display devices illuminated directly in front of them in environments with illuminance levels of 100 lx to 500 lx. The information displayed on the device should be clearly visible within a 22.5° viewing angle and at a distance of 1m from the detector.

5.3.4 Terminal blocks For detectors with terminals, the function of each terminal should be clearly labeled. When using numbers or symbols to label functions, the corresponding application should be indicated. This is explained in the instruction manual.

5.3.5 Gas Sensor

5.3.5.1 When the detector uses a pluggable gas sensor or sensor assembly, it should have structural anti-detachment measures. Gas sensor or If a sensor component detaches, the detector should be able to send a fault signal within 30 seconds.

5.3.5.2 The detector should have a gas sensor lifespan status indication function and meet the following requirements.

- a) The detector should have an independent yellow gas sensor life status indicator;
- b) When the detector's cumulative operating time reaches the gas sensor's service life, the life status indicator light should flash and emit a signal indicating the presence of combustible gas. The alarm sound signals are distinctly different from the sensor's lifespan expiration sound signal;
- c) The detector surface should have a clear label indicating that the gas sensor has reached the end of its lifespan and needs to be replaced;
- d) The instruction manual for the detector should specify the service life of the gas sensor.

5.3.6 Network Interface The system detector should have a network interface that can

connect to control and indication equipment, and the network interface should be able to output a value relative to the measured concentration. The signals should include those for normal monitoring, fault detection, alarm detection, and sensor lifespan status. Information such as signal type and parameters should be provided in the user manual. It is noted in the book.

5.3.7 Self-test function The detector should have a manual self-test function for its acoustic and optical components, and its control output interface should operate with a delay of 7 to 30 seconds during the self-test.

5.3.8 Historical Event Recording Function

5.3.8.1 The detector should have a timing device inside, and the daily timing error should not exceed 10 seconds.

5.3.8.2 The detector should have a historical event recording function, and the historical event records should be retained after the detector loses power. The types of records and the storage capacity of each type should meet the following requirements.

- a) Detector alarm logs. no fewer than 200;
- b) Detector alarm recovery records. no fewer than 200 entries;
- c) Detector fault logs. no fewer than 100 entries;
- d) Detector fault recovery records. no fewer than 100 records;
- e) Detector power failure logs. no fewer than 50 records;
- f) Detector power-on logs. no fewer than 50 records;
- g) Detector silence logs. no fewer than 20 records;
- h) Detector self-test records. no fewer than 20 records;
- i) The activation signal emitted by the detector, which has the function of controlling electromagnetic gas emergency shut-off valves or dedicated electric valves for gas pipelines, is recorded. No fewer than 20 items;
- j) A detector with the function of controlling electromagnetic gas emergency shut-off valves or dedicated electric valves for gas pipelines, and the received feedback signals are recorded. No fewer than 20 items;
- k) A detector capable of receiving status information from other products, with at least 20 records of such information received;
- l) Gas sensor failure record. no less than 1 record.

5.3.9 Wireless Communication Function