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

GB/T 20936.2-2024

Replacing GB/T 20936.2-2017

**Gas detectors for explosive atmospheres - Part 2: Selection,
installation, use and maintenance of detectors for flammable
gases and oxygen**

爆炸性环境用气体探测器 第2部分：可燃气体和氧气探测器的选型、安装、使用
和维护

(English Translation)

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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 is part 2 of GB/T 20936 "Gas detectors for explosive atmospheres". GB/T 20936 has been published for the following part.

- Part 1: Performance requirements for combustible gas detectors;
- Part 2: Selection, installation, use and maintenance of combustible gas and oxygen detectors;
- Part 3: Guidelines for functional safety of fixed gas detection systems;
- Part 4: Performance requirements for open path combustible gas detectors.

This document replaces GB/T 20936.2-2017 "Gas detectors for explosive atmospheres Part 2: Combustible gas and oxygen detectors Compared with GB/T 20936.2-2017, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- The scope adds Class I equipment (see Chapter 1);
- Added the content of open path detector (see Chapter 3, 4.6, 6.2.3.5, 8.2, 8.6, 8.7, 8.8, Chapter 11, A.4);
- Added specific application of gas detectors (see 4.5);
- Added the content of sampling system (see 6.2.3.4, 8.2.3, 8.5, 11.2.2).

This document is modified to adopt IEC 60079-29-2:2015 "Explosive atmospheres Part 29-2. Gas detectors for flammable gases and oxygen "Detector selection, installation, use and maintenance".

This document has made the following structural adjustments compared to IEC 60079-29-2:2015.

- Appendix D corresponds to Appendix E of IEC 60079-29-2:2015;
- Appendix E corresponds to Appendix D of IEC 60079-29-2:2015.

The technical differences between this document and IEC 60079-29-2:2015 and their reasons are as follows.

- The normative reference GB/T 3836.1 replaces IEC 60079-0 (see Chapter 3, 6.2.2, 8.11.1) to adapt to the technical requirements of my country.

Technical conditions and increase operability;

- Replaced IEC 60079-19 (see 11.1) with the normative reference GB/T 3836.13 to adapt to my country's technical conditions and increase Operability;
- Replaced IEC 60079-10-1:2008 (see 6.3.2) with the normative reference GB 3836.14 to adapt to my country's technical conditions, Increase operability;
- Replaced IEC 60079-17 (see 11.1) with the normative reference GB/T 3836.16 to adapt to my country's technical conditions and increase Operability;

--- Replaced IEC 60079-13 (see 4.5.3) with the normative reference GB/T 3836.17 to adapt to my country's technical conditions and increase Operability;

--- The normative reference GB/T 3836.35 replaces IEC 60079-10-2 (see 6.3.2) to adapt to my country's technical conditions and increase Increase operability;

--- The normative reference GB/T 29812 replaces IEC 61285 (see 4.5.3) to adapt to my country's technical conditions and increase operability.

Sex;

--- Deleted the specific content on measurement principles in Chapter 5 because it has been included in Appendix A.

The following editorial changes were made to this document.

--- To be consistent with the existing standard series, the document name is changed to "Gas detectors for explosive atmospheres Part 2: Combustible gases and Selection, installation, use and maintenance of oxygen detectors";

--- Added information about the addresses of ISO and IEC terminology databases in the terms and definitions;

--- GB/T 20936.1 and GB/T 20936.4 replaced the informative references IEC 60079-29-1:2007 and IEC 60079-29-4:2009;

--- Deleted the information about relevant documents in the United States and Europe in Note 4.1.2;

--- Deleted the note on training in 10.1;

--- Changed the environmental parameter values in Table B.1;

--- Replace the international documents cited for informational purposes with Chinese documents.

Introduction

GB/T 20936 "Gas detectors for explosive atmospheres" aims to establish the basic requirements for the performance of various types of flammable gas detectors and provide Provides application guidance in the form of a partial standard, including the following parts.

--- Part 1: Performance requirements for combustible gas detectors;

--- Part 2: Selection, installation, use and maintenance of combustible gas and oxygen detectors;

--- Part 3: Guidelines for functional safety of fixed gas detection systems;