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

**GB 13486-2014**

Replacing GB 13486-2000

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**Portable heating catalytic methane alarm detector**

便携式热催化甲烷检测报警仪

**(English Translation)**

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## Foreword

All technical contents of this standard is mandatory.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB 13486-2000 "portable thermal catalytic methane detection alarm." this standard compared with GB 13486-2000, the main technical changes are as follows.

- Increased security provisions content explosion, and explosion-proof security provisions are classified and refinement (see 5.21);
- Add "display value stability" clause (see 5.10.1);
- Increasing the "insulation resistance" and "dielectric strength" clause (see 5.12 and 5.13);
- Remove the "instrument category" (see 2000 edition 4.1);
- Remove the instrument measuring range "(0 ~ 3)% CH<sub>4</sub>" [see 2000 edition of 4.3.1a)];
- "Instrument run continuously 7d (working day 9h)," adjusted to "alarm continuously 15d (working day 10h)," (see . 58, 2000 edition of 5.14);
- Instrument response time by "30s" adjusted "20s" (see 59, 2000 edition 5.11.);
- Alarm "alarm sound level intensity from its 1m distance should not be less than 80dB (A)" adjusted "alarm sound level intensity from its 1m distance should not be less than 75dB (A) "[see 5102, 2000 edition of 5.12b).];
- Alarm error test "(0.50 ~ 1.00)% CH<sub>4</sub> error.  $\pm 0.10$ , ( > 1.00 ~ 2.00)% CH<sub>4</sub> error. true value  $\pm 10\%$  "adjustment" Delta Alarm display value and set value should not exceed  $\pm 0.05\%$  CH<sub>4</sub> "requirement (see 5.10 1, 2000 edition 5.9);
- Working Hours Test Method Central Plains "Last 10min check the instrument zero" to "run 9.5h, check the instrument zero Point "(see 68, 2000 edition 6.12.);
- Damp heat test cycle consists of "2d" to "6d" (see 618, 2000 edition 6.17.);
- Winds affect the test method has been modified (see 6.15, 6.14, 2000 edition).

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This standard is proposed and managed by the China Coal Industry Association.

This standard by the Institute of Shenyang Coal Group Co., Ltd. Yangzhong City Nanfang Mine Electric Co., Ltd., Shandong Longtai Mining Equipment Co.

Division is responsible for drafting.

## 1 Scope

This standard specifies a portable hot catalytic coal mine methane detection alarm of terms and definitions, type, category, type, basic parameters and make Condition, technical requirements, test methods, inspection rules, marking, packaging, storage and so on.

**Note:** Mine portable thermal catalytic methane alarm detector applicable to the coal mine methane and coal dust explosive gas mixtures.

This standard applies to class I explosive environments portable thermal catalytic methane alarm detector (hereinafter referred to as Alarm).

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs GB/T 2423.1-2008 Environmental testing for electric and electronic products Part 2. Test methods Test A. Cold GB/T 2423.2-2008 Environmental testing for electric and electronic products Part 2. Test methods Test B. Dry heat GB/T 2423.4-2008 Environmental testing for electric and electronic products Part 2. Test methods - Test Db. Damp heat (12h 12h cycle) GB/T 2423.5 Environmental testing for electric and electronic products Part 2. Test methods Test Ea and guidance. Shock GB/T 2423.8 Environmental testing for electric and electronic products Part 2. Test methods Test Ed. Free fall GB/T 2423.10-2008 Environmental testing for electric and electronic products Part 2. Test methods Test Fc. Vibration (sinusoidal) GB/T 2829 periodic inspection Sampling procedures and tables (suitable for process stability test) GB 3836.1-2010 explosive atmospheres - Part 1. General requirements for equipment GB 3836.2-2010 explosive atmospheres - Part 2. the flameproof enclosure "d" protection equipment GB 3836.4-2010 Explosive atmospheres - Part 4. the intrinsically safe "i" protection equipment GB 4208-2008 shell protection (IP code) GB/T 9969 General Instructions industrial products AQ1043-2007 mining product safety signs logo MT210 Coal communication, detection, control the basic test methods for electric and electronic products

## 3 Terms and Definitions

The following terms and definitions apply to this document.

Display value Measured value by the alarm of the monitor display.

Zero zeropoint

Alarm display value work in the fresh air when.