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JJG

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

JJG 693-2011

Replacing JJG 693-2004; JJG 940-1998

**Verification regulation of Alarmer Detectors of Combustible Gas
(English Translation)**

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5.5 Test cycle (5)

Appendix A test recording format (6)	
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Introduction

JJG 693-2011 "combustible gas detection alarm" is based JJF1002 "national verification procedures to prepare Rules ", JJF1001" common measurement terms and definitions ", JJF1059" Evaluation and Expression of Uncertainty in Measurement "Regulation Set of JJG 693-2004 "combustible gas detection alarm" and JJG 940-1998 "catalytic combustion of hydrogen gas detection Instrument "Two regulations revising. The revised procedures in

place JJG 693-2004 "combustible gas detection alarm" and JJG 940-1998 "catalytic combustion of hydrogen detector" two procedures. And JJG 693-2004 and JJG 940-1998 phase Ratio, in addition to editorial changes outside the main technical changes are as follows.

- Expanding the subject of range. Comprising the measuring range. under 100% LEL (combustible gas explosion Limited concentration), low concentration ($\mu\text{mol/mol}$) and a high concentration (100% volume fraction);
- Remove the original statutes "instrument or use other structures may refer to this calibration procedure" content;
- Revised span drift indicators from the original range of $\pm 5\%$ FS, adjusted to $\pm 3\%$ FS (see Table 1);
- The original appearance of the statutes and a power check, modify the appearance and structure, sign and logo, energizing check and other three (see 4.1,4.2,4.3);
- Increased alarm operation value check, deletion of the original procedure error alarm test item (see 4.4);
- Specifically defined the type of gas standard material. k gas standard material containing factor from the original 3 = Modify k = 2 (see 5.1.2.1);
- Removed the original procedure in Appendix B "standard material traceability requirements." The standard gas dilution device included positive Text (see 5.1.2.1);
- Indication error test method increases the traffic control requirements, delete the original procedure in Appendix A "traffic Requirements "(see 5.1.2.2);
- Modify the test results and the test results of notice-page format. The modified-page format so that users clearly We know the specific targets of the seized equipment at different points.

The previous versions of the release JJG 693-2004 case.

--- JJG 693-2004;

--- JJG 693-1990.

JJG 940-1998 of previously issued as follows.

--- JJG 940-1998.

Combustible gas detection alarm verification procedures

1 Scope

The order applies to non-mine operating environment for use in combustible gas detection alarm (including the detection of combustible gases Instrument, hereinafter referred to as

"instrument") of the initial verification, use and subsequent verification check.

2 Overview

The main instrument detection principle catalytic combustion type, infrared absorption, thermal conductivity type. Sampling methods are diffused and inhaled. Instruments mainly by the detection element, an amplification circuit, alarm systems, monitors and other components for monitoring the environment the concentration of combustible gases.

3 metering performance requirements Measurement performance requirements are shown in Table 1.

Table 1 metrological requirements

Project Requirements Indication error $\pm 5\%$ FS Repeatability $\leq 2\%$ Response time Diffusion $\leq 60s$ Inhaled $\leq 30s$ drift Zero drift $\pm 3\%$ FS Span drift $\pm 2\%$ FS Note. "FS" indicates that the instrument of full scale, the same below.

4 General technical requirements

4.1 Appearance and structure

4.1.1 The instrument shall not affect the appearance of their normal work injury. Surface of the new instrument should be made smooth, paint Color uniform coating, no rust flaking phenomenon.

4.1.2 Instrument reliable connection, each knob or button shall be able to operate and control.

4.2 marks, and logos Made instrument name, model number, manufacturer name, date of manufacture, serial number, serial number and proof mark and domestic equipment Measuring instruments manufacturing license logo and number, etc. should be complete and clear.

4.3 energizing check After the instrument is powered, the instrument should be able to work properly, the display portion should be clear and complete.

4.4 alarm function and alarm operation value check