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JJG

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

JJG 649-2016

Replacing JJG 649-1990

**Digital Weighing Indicators (Weighing Indicators)
(English Translation)**

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Introduction

This procedure is a revision of the JJG 649-1990 "digital weighing display" verification procedure.

The JJF1002-2010 "Rules for the Preparation of National Metrological Verification Regulations" was implemented in the preparation format. versus JJG 649-1990 compared to the editorial changes in the main changes are the following.

--- increase the content of the term (3);

- Accuracy level is expressed in terms of 3, 4 and 4 levels of accuracy (5.1);
- to determine the degree of accuracy by dividing the degree of classification, abolish the correlation between the original procedure and the accuracy level of the instrument (5.2);
- The maximum allowable error replaces 0.7 times the original rule (5.5) with a multiple of the error distribution coefficient pind;
- increase the measurement of legal signs and illustrative logo (6.5);
- increase the load cell and other testing equipment (7.1.1);
- the unit of measurement using a dimensionless unit, to replace the original procedures to the quality of units for the measurement unit.
- delete response time test items;
- remove the warm-up time technical requirements;
- delete safety performance requirements and their verification methods;
- remove anti-jamming performance test related content;
- remove the identification, temperature, power supply test items;
- Added Appendix A error calculation method;
- Added Appendix B Verification Record Format (Recommended);
- Added Appendix C Verification certificate page format;
- increase the Appendix D test results notice page format;
- Add Appendix E abbreviations and symbols.

This procedure has been published in the following circumstances.

- JJG 649-1990 "digital weighing indicator".

Digital weighing indicator (weighing indicator) verification procedures

1 Scope

This procedure applies to the accuracy of the level of non-automatic weighing digital weighing display of the test.

Note: digital weighing indicator, also known as the weighing indicator, hereinafter referred to as the indicator.

2 reference file

This procedure refers to the following documents.

JJG 99 weight

JQF1181 Weighing Terms and Definitions OIMLR76..2006 (E)

"Non-automatic weighing instruments" the terms of the above documents are the terms of this Code by reference to this Code. Any reference to the date of the text, Only the date of the version applies to this order; any reference to the date of the document, the latest version (including all of the amendments) apply to this procedure.

3 terminology

JJF1181 "Terms and Definitions for Weighing Metrology Terms" and OIMLR76

"Non-Automatic Weighing" the following terms apply to this procedure.

The output signal of the counterweight sensor in the instrument is subjected to analog-to-digital conversion (optional) and further data processing, an electronic device for weighing the results.

Habitually divided into digital and analog two.

The indicator for receiving the digital signal is a digital weighing indicator, and the indicator for receiving the analog signal is an analog weighing Indicator.

Note: Both the digital weighing indicator or the analog weighing indicator are in digital form.

3.2 error allocation coefficient apportioning factor of m_{pe} (pind) is the error distribution coefficient of the indicator, which is multiplied by the maximum allowable error of the proposed instrument.

The difference.

3.3 Signal voltage the voltage at the receiving end of the analog indicator signal is input.

3.4 Minimum input voltage (U_{min}) the minimum simulated static load signal value of the indicator, the allowable input generated by the carrier and still meet the requirements of this procedure is equivalent to the minimum value of the voltage output from the load cell when the instrument is unloaded.

3.5 Maximum input voltage (U_{min}) the indicator reaches the maximum test division number n_{ind} corresponding to the signal voltage value that is allowed to enter and still be able to meet this procedure the required input signal voltage.