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**INDUSTRY STANDARD OF THE
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JJG 1084-2013

**Verification Regulation of Digital Barometers
(English Translation)**

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Introduction

JJF1002 "national verification procedures write rules", JJF1001 "common measurement terms and definitions" JJF1008 "Pressure measurement terminology and definitions" and JJF1059.1 "Evaluation and Expression of Uncertainty in Measurement" common Form the basis of the family of specifications developed by the present regulations.

The regulations refer to the International Organization of Legal Metrology (OIML) R97 international recommendation of "barometer" (Barometers) and "Guide to Meteorological Instruments and Methods of Observation" (GuidetoMeteorologicalInstruments andMethodsofObservation) air pressure level measurement accuracy requirements of the formulation. This procedure error return the calculation method used R97 international recommendations "barometer" (Barometers) basic algorithm return error; this Practice metering performance requirements 0.03 main consideration for the WMO pressure level measurement accuracy requirements; this procedure Develop stability indices used JJG 875-2005 indicators stability "digital pressure gauge"; this procedure on a Examination given method and technical indicators were refined, additions and modifications.

This procedure is the first release.

Digital barometer verification procedures

1 Scope

The order applies to measuring range (10 - 1200) within hPa digital pressure gauge (hereinafter referred to as the barometer) of Initial verification, use and subsequent verification check.

2. References

This procedure references the following documents.

JJG 875-2005 digital pressure gauge JJF1001-2011 common measurement terms and definitions JJF1008-2008 pressure measurement terminology and definitions for dated references, only the dated edition applies to this procedure; undated reference documents Member, the latest edition (including any amendments) applies to this procedure.

Unit 3

Barometric pressure is measured in hectopascals (hPa), or its decimal multiples units.

4 Overview

Barometer in digital form output (display) the magnitude of the pressure to atmospheric pressure measuring instruments (including integrated test Satisfy the above amount of the instrument in the form of atmospheric pressure measurement unit). Barometer of the overall type and structure can be divided into separate Type, typically used to measure

atmospheric pressure. Its working principle shown in Figure 1, the pressure measured by the pressure transmission medium in Pressure sensor, the pressure sensor output a corresponding electrical signal, the pressure after the display processing by the signal processing unit Value.

Figure 1 barometer works

5 metering performance requirements

5.1 Indication error Barometer indication error should meet the requirements of Table 1.

Table 1 barometer of the level of accuracy with the maximum permissible error

Accuracy class	0.01	0.02	0.03	0.04	0.05	0.1	0.2	0.5	the maximum permissible error/hPa
	± 0.10	± 0.20	± 0.3	± 0.4	± 0.5	± 1.0	± 2.0	± 5.0	