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

CJ/T 112-2008

**Integrated circuit card diaphragm gas meter
(English Translation)**

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Foreword

This standard shall, from the date of implementation, replace CJ/T 112-2000

"Integrated circuit card diaphragm gas meter for household use".

In the development process, this standard makes reference to EN 1359 "Gas meter - Diaphragm gas meters". This standard is the revision of CJ/T 112-2000 "Integrated circuit card diaphragm gas meter for household use". As compared with CJ/T 112-2000, the main changes are as follows.

- ADD the application scope of integrated circuit card diaphragm gas meter;
- INCREASE the maximum flow rate from 10 m³/h to 160 m³/h; CHANGE the standard name into "Integrated circuit card diaphragm gas meter";
- CANCEL the memory card;
- CANCEL the IC card gas meter using AC power supply;
- ADD the service life requirements for built-in battery;
- ADD the appearance requirements for IC card gas meter;
- In the environmental requirements, ADD the requirements for IC card gas meter storage temperature;
- CHANGE the enclosure protection level from IP31 to IP53;

- ADD the electrostatic protection requirements;
- ADD the quiescent current and maximum operating current requirements;
- ADD the conversion error requirements;
- ADD the security requirements.

This standard was proposed by the Ministry of Housing and Urban-Rural Development Standard Quota Study Institute.

This standard shall be under the jurisdiction of the Ministry of Housing and Urban-Rural Development Urban Gas Standard Technical Unit - North China Municipal Engineering Design and Research Institute.

The main drafting organizations of this standard. Urban Construction Research Institute, Dandong Sikai Electronic Development Co., Ltd., Zhengzhou Anran I&C Equipment Co., Ltd., Hangzhou Pioneer Electronic Technology Co., Ltd., Shandong Jining Lanwei Intelligent Network Center, Dandong Thermal Integrated circuit card diaphragm gas meter

1 Scope

This standard specifies the technical requirements, test methods, inspection rules, marking, packaging, transportation and storage of IC card diaphragm gas meters with a maximum flow of 160 m³/h.

This standard is applicable to the design, production, testing and acceptance of IC card diaphragm gas meter (hereinafter referred to as gas meter).

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable.

For undated references, the latest edition of the referenced document applies.

GB/T 2423.17 Environmental testing for electric and electronic products -

Part 2. Test method - Test Ka. Salt mist (GB/T 2423.17-1993, eqv IEC 60068-2-11.1981)

GB/T 2828.1 Sampling procedures for inspection by attribute - Part 1. Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (GB/T 2828.1-2003, ISO 2859-1.1999, IDT)

GB/T 2829 Sampling procedures and tables for periodic inspection by attributes (Apply to inspection of process stability)

GB/T 4208-1993 Enclosure protection class (IP code) (eqv IEC 529.1989)

GB/T 6968 Diaphragm gas meters

GB/T 17626.2-2006 Electromagnetic compatibility (EMC) - Testing and measurement techniques - Electrostatic discharge immunity test (GB/T 17626.2-2006, IEC 61000-4-2.1995, IDT)

GB/T 17626.3-2006 Electromagnetic compatibility (EMC) - Testing and measurement techniques - Radiated radio frequency electromagnetic field immunity test (GB/T 17626.3-2006, IEC 61000-4-3.2002, IDT)

CJ/T 3074-1998 Electronic controller of household gas burning appliances

CJ/T 3075.2-1998 Laboratory of gas burning appliances - Test equipment and device

JJG 577 Verification regulation of diaphragm gas meter

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1

IC card diaphragm gas meter

It refers to the gas meter which uses the diaphragm gas meter as the basic gas meter and the IC card as the media and is added with controller, having the function of gas pre-purchase.

3.2

Basic gas meter

It refers to the diaphragm gas meter used in the IC card diaphragm gas meter.

3.3

Control unit

It refers to the device used to read the basic gas meter data, display and control.

3.4

Minimum operating voltage

It refers to the minimum set voltage to ensure the normal operation of controller.

3.5

Total pressure loss

It refers to, after the gas meter is installed with control valve, the pressure loss between the gas inlet and gas outlet under the specified conditions.

3.6

6.2.1.1 Storage temperature. -25 °C ~ +55 °C, after the restoration of normal temperature, its function shall comply with the requirements of 6.3 and 6.4.

6.2.1.2 Operating temperature. -10 °C ~ +40 °C, AND its function shall comply with the requirements of 6.3, 6.4, and 6.6.

6.2.2 Constant heat and humidity

When the relative humidity is 93% and temperature +40 °C, its function shall comply with the requirements of 6.3 and 6.4, AND the appearance shall be free from rust.

6.2.3 Salt mist

Gas meter shall have salt mist resistant performance, AND its function shall comply with the requirements of 6.3 and 6.4.