

CCS N 12



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

GB/T 41248-2022

Measuring systems for gaseous fuel

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents" drafted.

This document uses the redrafted law to modify and adopt OIMLR140.2007 "Gas Metering System".

This document has been structurally adjusted compared to OIMLR 140.2007. Appendix A lists the differences between this document and OIMLR 140.2007.

Chapter number comparison list.

The technical differences between this document and OIMLR140.2007 and the reasons are as follows.

--- Regarding normative reference documents, this document has made adjustments with technical differences to adapt to the technical conditions of our country.

as follows.

* Replaced IEC 60068-2-1 with GB/T 2423.1 equivalent to adopting international standards (see Table E.3);

* Replaced IEC 60068-2-2 (see Table E.2) with GB/T 2423.2 equivalent to international standards;

* Replaced IEC 60068-2-78 (see Table E.4) with GB/T 2423.3 equivalent to international standards;

* Replaced IEC 60068-2-30 with GB/T 2423.4 equivalent to the international standard (see Table E.5);

* Replaced IEC 60068-2-47 with GB/T 2423.43 which is equivalent to adopting international standards (see Table E.6);

* Replaced IEC 60068-2-64 with GB/T 2423.56 which is equivalent to adopting international standards (see Table E.6);

- * Replaced IEC 60068-3-1 with GB/T 2424.1 equivalent to the international standard (see Table E.2 and Table E.3);
- * Replaced IEC 60068-3-4 with GB/T 2424.2 equivalent to international standards (see Table E.4 and Table E.5);
- * Replace ISO 6976 with GB/T 11062-2020 which is equivalent to adopting international standards (see 7.3.2 and G.3.3);
- * Replaced ISO 10715 with GB/T 13609-2017 modified to adopt international standards (see 8.1.1);
- * Replace IEC 60654-2 with GB/T 17214.2-2005 which is equivalent to adopting international standards (see Table E.13);
- * Replaced IEC 61000-4-1 with GB/T 17626.1 which is equivalent to the international standard (see Table E.14 and Table E.16);
- * Replaced IEC 61000-4-2 with GB/T 17626.2 which is equivalent to adopting international standards (see Table E.11);
- * Replaced IEC 61000-4-3 (see Table E.7) with GB/T 17626.3 equivalent to international standards;
- * Replaced IEC 61000-4-4 with GB/T 17626.4 which is equivalent to the international standard (see Table E.16);
- * Replaced IEC 61000-4-5 with GB/T 17626.5 which is equivalent to the international standard (see Table E.12 and Table E.17);
- * Replaced IEC 61000-4-6 (see Table E.10) with GB/T 17626.6 which is equivalent to the international standard;
- * Replaced IEC 61000-4-11 with GB/T 17626.11 which is equivalent to adopting international standards (see Table E.15);
- * Replaced IOS6551 with GB/T 17746-1999 which is equivalent to adopting international standards (see 9.3.2);
- * Replaced ISO 12213-1 with GB/T 17747.1-2011 which was modified to adopt international standard (see F.2.3);
- * ISO 12213-2 (see 6.3.3.1 and F.2.3) is replaced by GB/T 17747.2-2011 which is modified to adopt international standards;
- * Replaced ISO 12213-3 with GB/T 17747.3-2011 which was modified to adopt international standard (see F.2.3);
- * Replacing IEC 61000-6-1 with GB/T 17799.1-2017 modified to adopt international standards (see Table E.15);

- * Replace IEC 61000-6-2 with GB/T 17799.2-2003 which is equivalent to adopting international standards (see Table E.15);
- * Replaced IEC 61000-2-2 with GB/T 18039.3-2017 which is equivalent to adopting international standards (see Table E.14);
- * Replace IEC 61000-2-1 with GB /Z 18039.5-2003 which is equivalent to adopting international standards (see Table E.14);
- * Replaced IEC 60751 (see 10.2.1) with GB/T 30121-2013 equivalent to international standards;
- * Replaced OIMLR137-1 with GB/T 32201-2015 modified to adopt international standards
- * Replace ISO 6141 with GB/T 35860-2018 which is equivalent to adopting international standards (see F.2.7);
- Change the content of Note 2 in 7.1.4 to the text content;
- Change the note in Table E.11 to a footnote.

The following editorial changes have been made to this document.

- Merge Chapters 1 and 2 of R140.2007 into Chapter 1; modify the scope according to the requirements of GB/T 1.1;
- Deleted the note in 6.8;
- The suspension section in R140.2007 has been numbered and titled, and the number that does not meet the requirements has been revised.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the terms and definitions of gas metering systems, measurement units and abbreviations, measurement requirements, measurement system technical requirements, flow rate

Technical requirements for meters, measurement modules and auxiliary equipment, technical requirements for electronic equipment and measurement management requirements.

This document is applicable to the design under standard conditions, the maximum flow rate is greater than or equal to 100m³/h, and the absolute working pressure is greater than or equal to

200kPa gas metering system.

This document does not apply to compressed natural gas (CNG) metering systems for vehicles.

This document does not provide any requirements applicable to flow meters.

This document does not apply to membrane gas meters.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 2423.1 Environmental Testing of Electrical and Electronic Products Part 2. Test Methods Test A. Low Temperature (GB/T 2423.1-

2008, IEC 60068-2-1.2007, IDT)

GB/T 2423.2 Environmental Testing of Electrical and Electronic Products Part 2. Test Methods Test B. High Temperature (GB/T 2423.2-

2008, IEC 60068-2-2.2007, IDT)

GB/T 2423.3 Environmental Test Part 2. Test Method Test Cab. Constant Damp Heat Test (GB/T 2423.3-2016,

IEC 60068-2-78.2012, IDT)

GB/T 2423.4 Environmental testing of electrical and electronic products Part 2. Test method Test Db. Alternating damp heat (12h 12h cycle

Ring) (GB/T 2423.4-2008, IEC 60068-2-30.2005, IDT)

GB/T 2423.43 Environmental Testing of Electrical and Electronic Products Part 2. Test Methods Vibration, Shock and Similar Dynamic Test Specimens

Installation of products (GB/T 2423.43-2008, IEC 60068-2-47.2005, IDT)

GB/T 2423.56 Environmental Testing Part 2. Test Methods Test Fh. Broadband Random Vibration and Guidelines (GB/T 2423.56-

2018, IEC 60068-2-64.2008, IDT)

GB/T 2424.1 Environmental Testing Part 3. Supporting Documents and Guidelines Low Temperature and High Temperature Testing (GB/T 2424.1-2015,

IEC 60068-3-1.2011, IDT)