

ICS 25.040
CCS N 10



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

GB/T 47234-2026

**General technical requirements for the intellectualization of
measurement and control equipment**

测控装备智能化通用技术要求

Issued on: February 27, 2026

Implemented on: September 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.Functional Architecture of Intelligent Measurement and Control Equipment	2
5.Technical Requirements	3
5.1 General Requirements	3
5.2 Safety Requirements	3
5.3 Intelligent Technology Requirements	3
6.1 General Rules	7
6.2 Safety Assessment Content	7
6.3 Evaluation Content of Intelligent Technology	7
19 References	22

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Machinery Industry Federation. This document is under the jurisdiction of the National Technical Committee on Standardization of Industrial Process Measurement, Control and Automation (SAC/TC124). This document was drafted by: Mechanical Industry Instrumentation Comprehensive Technology and Economic Research Institute, Nuclear Power Operation Research (Shanghai) Co., Ltd., and Beijing Aerospace... Tianjin Institute of Metrology and Testing Technology, Tianjin Hengli Yuanda Instrument Co., Ltd., Chengdu University of Technology, and Sinopec Synthetic Oil Engineering Co., Ltd. Beijing Sifang Relay Protection Engineering Technology Co., Ltd., Beijing Corner Power Technology Co., Ltd., ZTE Corporation, China Institute of Standardization Institute, National Institute of Metrology, Huazhong University of Science and Technology, Hollysys Technology Group Co., Ltd., Supcon Technology Co., Ltd., Dongfang Electric Corporation Group Science and Technology Research Institute Co., Ltd., China Electronics Engineering Design Institute Co., Ltd., Beijing Foton Cummins Engine Co., Ltd. Hope Senlan Technology Co., Ltd., Beijing Jingyi Group Co., Ltd., MCC Jingcheng Digital Technology (Beijing) Co., Ltd.,

Chongqing Meng Xun Electronics Technology Co., Ltd., Shanghai University of Electric Power, Shenyang University of Technology, Guangdong Institute of Metrology (South China National Metrology and Testing Center) Jike Development Technology Co., Ltd., Harbin Institute of Technology (Weihai), Beijing Hollysys Intelligent Technology Co., Ltd., China Southern Power Grid Scientific Research Institute Research Institute Co., Ltd., Shanghai Automation Instrumentation Co., Ltd., Shenzhen Panyueliang Innovation Technology Co., Ltd., and Graff (Jiaxing) Instrumentation Co., Ltd. Limited Liability Company. The main drafters of this document are. Du Mengxin, Wu Dayuan, Chang Zhengke, Fang Yifang, Liu Tao, Zhang Xiujian, Li Fuqiang, Chen Guangzhu, and Fan Yongfeng. Du Zhenhua, Qiao Jingyu, Huang Xiaofeng, Tian Jiaying, Li Fangjian, Wen Na, Gao Liang, Sun Jing, Yang Lina, Xie Jiejun, Gong Tao, Qian Lili, Shi Zhiyuan, Li Chen Qiu Guosheng, Luo Shen, Wang Li, Liu Dong, Chen Jing, Bao Weihua, Zhang Xiaoling, Zhang Xiang, Zhang Sheng, Deng Libao, Gao Shan, Bai Hao, Zhao Yong, Zhang Xueqin, Wu Hao Gao Siliang and Yan Mengying. General technical requirements for intelligent measurement and control equipment

1 Scope

GB/T 47234-2026 is the Chinese national standard covering what makes a measurement and control instrument intelligent rather than merely digital - the self-diagnosis and self-calibration, the adaptation to the process, the data it publishes and the interfaces through which it is configured and updated. First edition. It was issued on 27 February 2026 and has been in force since 1 September 2026, as a first edition. The document is under the responsibility of the China Machinery Industry Federation. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the technical requirements for intelligent measurement and control equipment in the manufacturing field and describes the corresponding testing methods. This document applies to the design, manufacturing, modification, and evaluation of intelligent measurement and control equipment in the manufacturing field.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 4793 Safety Technical Specification for Electrical Equipment for Measurement, Control and Laboratory Use

GB/T 6379.3 Accuracy (Correctness and Precision) of Measurement Methods and Results - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 43780-2024, as well as the following terms and definitions, apply to this document.

3.1 It is applied in the design, production/manufacturing, management and service processes, directly or indirectly affecting the target product, equipment or industrial production process. A process is a device or system that has at least one function of measurement, control, or execution.

Note. The measurement and control equipment included in this document includes the following types. 1) Detection devices, including transmitters, sensors, etc.; 2) Control systems, including programmable logic controllers (PLCs), distributed control systems (DCS), machine tool CNC systems, robot controllers, etc.