

ICS 25.040.40; 33.100
CCS N 10



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

GB/T 18268.23-2010

**Electrical equipment for measurement, control and laboratory use -- EMC requirements --
Part 23: Particular requirements -- Test configurations, operational conditions and
performance criteria for transducers with integrated or remote signal conditioning**

测量、控制和实验室用的电设备 电磁兼容性要求 第23部分：特殊要求 带集成或
远程信号调理变送器的试验配置、工作条件和性能判据

(English Translation)

Issued on: January 14, 2011

Implemented on: May 1, 2011

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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Foreword

GB/T 18268 "Electromagnetic compatibility requirements for electrical equipment for measurement, control and laboratory use" is composed of the following components.

Part 1. General requirements - Part 21. Particular requirements - Test configuration and

operating conditions for susceptibility testing and measurement equipment for electromagnetically compatible protective equipment and performance criteria - Part 22. Particular requirements for portable test, measurement and monitoring equipment for low voltage distribution systems - Test configuration, operating conditions and Performance criteria Part 23. Special requirements Test configuration, operating conditions and performance criteria for integrated or remote signal conditioning transmitters - Part 24. Special requirements Insulation monitoring devices complying with IEC 61557-8 and insulation tolerances according to IEC 61557-9 Test equipment, operating conditions and performance criteria for bit devices - Part 25. Particular requirements for test equipment, working conditions and conditions for field devices complying with IEC 61784-1, CP3/2 can be judged - Part 26. Special requirements for in vitro diagnostic (IVD) medical equipment - Part 31. Immunity requirements for equipment performing or preparing for safety functions (functional safety) General industrial applications - Part 32. Immunity requirements for equipment that performs or is prepared to perform safety functions (functional safety) Specifies that the electromagnetic environment of industrial applications this part is part 23 of GB/T 18268.

This part is equivalent to IEC 61326-2-3.:2006 "Measurement, control and laboratory equipment for electromagnetic compatibility requirements Section 2-3 Part. Specified Test Configuration, Operating Conditions and Performance Criteria for Integrated Transmitters with Integrated or Remote Signal Conditioning "(English version).

This part is equivalent to translation IEC 61326-2-3.:2006.

This part is formulated according to GB/T 1.1-2000 "Standardization of work guidelines Part 1. Standard structure and the preparation of rules" and GB/T .20000.2-2001 "Standardization work guide Part 2. the use of international standards of the rules," the relevant provisions of the following editorial modify.

- the preamble of the international standard was removed;

"This part of IEC 61326" is replaced by "this part of GB/T 18268";

- the original cited documents in accordance with the provisions of GB/T 1.1-2000 rules into the normative reference file of the guide;

The normative reference document supplements the documents referenced in this section; the original reference document, part 312 of the IEC 60050-300, 313 and 314 are not referenced in this section and are deleted;

- use a decimal point "instead of a comma as a decimal point." in this part of the international standards used, the chapters of the additional content are used a special number, such as 3.101, etc., to show the difference. In view of this part Divided into equivalent to the use of international standards, in line with international standards, this part has not been changed.

Appendix A of this section, Appendix BB, Appendix CC is a normative appendix.

This part is made by the China Machinery Industry Federation.

This part of the National Industrial Process Measurement and Control Standardization Technical Committee (SAC/TC124) centralized.

This part is responsible for drafting units. Shanghai Industrial Automation Instrumentation Institute and other units.

This part participates in the drafting unit. Shanghai instrumentation automatic control system inspection and testing institute, Jiaxing KeXun Electronics Co., Ltd., Shanghai Yi Bo ship Co., Ltd., Fujian Shangrun Precision Instrument Co., Ltd., Shanghai Modulus Instrument Co., Ltd.

1 Scope

In addition to the requirements specified in GB/T 18268.1, this part of GB/T 18268 specifies, in more detail, with integrated or remote signal conditioning Transmitter 's test configuration, operating conditions and performance criteria.

This section applies only to transform functions and, with the assistance of auxiliary energy, convert non-electric quantities into process-related electrical signals and A transmitter that outputs a signal on one or more ports. This section contains transmitters that measure the amount of electricity and biomass.

The transmitters referred to in this section may be powered by AC or DC voltage and/or batteries, or have internal power supply.

The transmitter described in this section consists at least the following parts (see Figure 101 and Figure 102).

- one or more elements that convert non-electrical inputs into electricity;
- transmitting the power to the transmission link of the signal conditioning element;
- a signal conditioning unit that converts power into a process-related electrical signal;

A case in which the above elements are enclosed in whole or in part.

The transmitter described in this section may also include the following items (see Figure 101 and Figure 102).

- a communication and control unit;
- a display unit;
- control components, such as keys, buttons, switches and so on;
- Clearly used as input signal transmitter output signal (for example. switch signal, alarm

signal);

--- with integrated or remote signal conditioning transmitter.

The manufacturer shall specify the intended use environment of the transmitter and select the appropriate test grade from the specification of GB/T 18268.1.

The appendix to this section gives additional requirements and exceptions for special transmitters.

2 Normative reference documents

The terms of this document are the terms of this part by reference to this part of ISO/IEC 156868. Any reference to the date of the text, All subsequent amendments (excluding corrigenda) or revisions do not apply to this part, however, encouragement under this section the parties to the agreement study whether the latest version of these documents can be used. For undated references, the latest edition of this document applies section.

GB/T 2900.77 Electrotechnical terminology - Electrical and electronic measurement and instrumentation - Part 1. Generic terms for measurement (GB/T 2900.77-2008, IEC 60050 (300-311)..2001, IDT) GB/T 17626.2 Electromagnetic compatibility test and measurement technology Electrostatic discharge immunity test (GB/T 17626.2-2006, IEC 61000-4-2.:2001, IDT) GB/T 17626.3 Electromagnetic compatibility test and measurement technology Radio frequency electromagnetic radiation immunity test (GB/T 17626.3-2006, IEC 61000-4-3.:2002, IDT) GB/T 17626.4 Electromagnetic compatibility test and measurement techniques Electrical fast transient burst immunity test (GB/T 17626.4-2008, IEC 61000-4-4.:2004, IDT) GB/T 17626.5 Electromagnetic compatibility test and measurement technology Surge immunity test (GB/T 17626.5-2008, IEC 61000-4-5.:2005, IDT)