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

GB/T 3386.1-2007

Replacing GB/T 3386-1988

**Electrical and pneumatic analogue chart recorders for use in
industrial-process control systems -- Part 1: Methods for
performance evaluation**

工业过程控制系统用电动和气动模拟图纸记录仪第1部分:性能评定方法

(English Translation)

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Foreword

GB/T 3386 "industrial process control systems with electric and pneumatic analogue chart recorders" is divided into two parts.

--- Part 1. Methods for performance evaluation;

--- Part 2. Inspection and routine testing.

This section GB/T 13386 Part of, identical with IEC 60873-1:2003 "industrial process control systems with electric and pneumatic Analogue chart recorders - Part 1. Methods for performance evaluation. " this section is equivalent translation IEC 60873-1:2003 (English version).

To comply with GB/T 1.1-2000 "Standardization Guide Part 1. Standard structure and writing rules" and GB/T 20000.2-2001 the relevant provisions. "Standardization Guide Part 2 of the rules of international standards" and easy to use, at the time of the enactment of this section to do the following Some editorial changes and corrections of errors between.

--- "This standard" be replaced by "GB/T 3386 this part."

--- Remove the foreword and introduction of international standards.

--- Original language reference guide according to the provisions of the standard GB/T 1.1-2000 changed to normative references introductory phrase file.

--- Normative according to the provisions GB/T 1.1-2000 rearrange the list of documents.

--- Increased "by the error table and the error curve to determine the" parallel representation in 6.3. According to the provisions of GB/T 18271.2, the "back Difference "is the difference between the test point of each cycle up and down stroke readings, but not on the itinerary of test point average error and the average error lower stroke the difference between the difference, in addition to "repetitive" is the maximum difference between each round trip on the same test points measured, it is not from the error curve (Depicted by error of the mean) determined.

--- Remove the 7.4 file relating to the provisions cited numbers, GB/T 18271.3-2000 12.5 as

"electrical fast transient burst Immunity "instead of" Power transient overvoltage "test because of its" experimental methods and procedures described "column did not specify test Test methods, and therefore reference IEC 61003-1:2003 in the same "power transient overvoltage" pilot project, in the "Test methods and procedures Order Instructions "supplements the specific test method for a column.

--- 8.2 long-term drift of the original references GB/T 18271.3-2000 Chapter 24, but that chapter is "long-term drift," in view of 8.2 the long-term drift stability test, now corrected to reference GB/T 18271.2-2000 7.2 "long-term drift." Table reference File a column heading to change the process accordingly.

This Part replaces GB/T 3386-1988 "industrial process measurement and control system records and indicators for the performance of electrical and pneumatic analogue Evaluation Method. " Section compared with GB/T 3386-1988 The main changes are as follows.

--- This section need to be used with the GB/T 18271;

--- Increasing the terms and definitions;

--- 4.4 and GB/T 3386-1988 4.10 as this part also made for convenience, you can adjust the input signal to obtain Ideal output values, test procedures and record the input values, but this section 6.1.3 of GB/T 3386-1988 of 5.3 "error table" are inconsistent, the former with a reference table and the error as a percentage of the output range that the latter error it expressed as a percentage of the input range (as equivalent, this section without modification);

--- This part is not listed separately on basic error bars, the error 6.1.3 in this section is referred to GB/T 3386-1988 5.5 the basic error;

--- Increased electromagnetic radiation, the amount of purge gas and other effects of the test;

--- Smear test in this section with a frequency response conditions, GB/T 3386-1988 using the input signal conditions of long-term record;

--- Increase in the content of the test report;

GB/T 3386.1-2007/IEC 60873-1:2003

--- Remove the error table instance (can refer to GB/T 18271.2-2000);

--- Increased normative appendix "Other matters." this section of Appendix A normative appendix.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee first points by the National Technical Committee of industrial processes.

This section is responsible for drafting unit. Shanghai Institute of Industrial Automation Instrumentation.

Participated in the drafting of this section. Shanghai Automation Instrumentation and Systems Testing, Shanghai Automation Instrumentation Co., Ltd. Recorder

Table Manufacturing, Sichuan-Chongqing Plant Co., actuators branches recorders.

1 Scope

GB/T 3386 provisions of this part of the process to make sure all standardized control signal operating electric and pneumatic analogue chart recorders Instrument, including continuous dashes and RBI recorders and multi-point and multi-pen recorder performance. Some tests may not apply to all Loggers, and certain types of recorders may require additional testing.

This section is intended as a signal to the process of standardization work control electric and pneumatic analogue chart recorders for assessing the performance of a predetermined uniform experiment method.

When not in accordance with this section for a comprehensive assessment can be carried out only the required tests. Test results should be required to the relevant provisions of this part of the column the test report. The test report should describe the evaluation described in the report is not a comprehensive assessment, and noted that the omitted item.

2 Normative references

The following documents contain provisions which, through reference to GB/T 3386 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 2900.56-2002 Electrotechnical terminology automatic control (idt IEC 60050-351:1998) GB/T 18271.1-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 1. General Then (idt IEC 61298-1:1995) GB/T 18271.2-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 2. under reference conditions Test (idt IEC 61298-2:1995) GB/T 18271.3-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 3. effects of influence quantities Test (idt IEC 61298-3:1998) Part 4 GB/T 18271.4-2000 Process measurement and control devices - General methods and procedures for evaluating performance. Evaluation report within Yung (idt IEC 61298-4:1995) IEC 61010-1:2001 measurement, control and laboratory safety requirements for electrical equipment - Part 1. General

requirements IEC 61187:1993 Electrical and electronic measuring equipment preparation file

3 Terms and Definitions

GB/T 2900.56, GB/T 18271.1, GB/T 18271.2, GB/T 18271.3 and established the following terms and definitions apply in GB/T 3386 to the present section.

On continuous dash logger, even if the recording sheet moving slowly, the friction means recording on the recording paper may still be on the record result influences.

GB/T 3386.1-2007/IEC 60873-1:2003