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

GB/T 17614.2-2015

Replacing GB/T 17614.2-2008

**Transmitters for use in industrial-process control systems --
Part 2: Methods for inspection and routine testing**

工业过程控制系统用变送器 第2部分：检查和例行试验方法

(English Translation)

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Foreword

GB/T 17614 "Industrial process control systems Transmitters" is divided into three sections.

- Part 1. Methods for performance evaluation;
- Part 2. Inspection and routine testing methods;
- Part 3. Evaluation Method smart transmitter.

This section GB/T Part of 217,614.

This section drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20000.2-2009 given.

This Part replaces GB/T 17614.2-2008 "industrial process control systems Transmitters Part 2. Inspection and routine testing Then "this part of the GB/T 17614.2-2008 compared to the main technical changes are as follows.

--- Added smart transmitter routine inspection and test methods for content (see Chapter 1);

--- Environmental conditions temperature range from the "15 °C ~ 35 °C" becomes "15 °C ~ 25 °C" (see 5.2.1,2008 version 5.1.1).

This section uses the translation method is equivalent to using IEC 60770-2:2010 "industrial process control systems Transmitters Part 2. Check and cases Line test method "(in English).

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 777-2008 Industrial Automation Instrumentation Analogue pneumatic signal (IEC 60382:1991, IDT);

Generic term measurements. --- GB/T 2900.77-2008 Electrotechnical terminology - Electrical and electronic measuring instruments - Part 1 (IEC 60050 (300-311).2001, IDT);

--- GB/T 2900.79-2008 Electrotechnical terminology - Electrical and electronic measuring instruments - Part 3. Electric measuring instruments Type (IEC 60050 (300-313).2001, IDT);

--- GB/T 2900.89-2012 Electrotechnical terminology - Electrical and electronic measuring instruments - Part 2. General terms of electrical measurements (IEC 60050 (300-312).2001, IDT);

--- GB/T 2900.90-2012 Electrotechnical terminology for electric and electronic measurements and instrumentation - Part 4. Special surgical instruments of all kinds Language (IEC 60050 (300-314).2001, IDT);

--- GB/T 3369.1-2008 process control systems using analog signals - Part 1. Direct current signals (IEC 60381-1. 1982, IDT);

--- GB/T 17614.1-2015 industrial process control systems use transmitters - Part 1. Methods of evaluating performance (IEC 60770-1. 2010, IDT);

--- GB/T 17614.3-2013 industrial process control systems Transmitters - Part 3. Smart Transmitter Evaluation Method (IEC 60770-3:2006, IDT);

--- GB/T 18271.1-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 1. General (Idt IEC 61298-1:1995);

--- GB/T 18271.2-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 2. Reference Article Under the test piece (idt IEC 61298-2:1995);

--- GB/T 18271.3-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 3. Impact amount Impact test (idt IEC 61298-3:1998);

--- GB/T 18271.4-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 4. Evaluation of newspaper Report content (idt IEC 61298-4:1995).

This part made the following editorial changes.

- a) Remove the IEC 60770-2:2010 Foreword;
- b) with a decimal point "." instead of a comma as the decimal point, "." this part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee (SAC/TC124) is administered by the National industrial processes.

This section is drafted. Beijing Far East Instrument Co., Ltd., Shenzhen City superscript Li Technology Development Co., Beijing Jin Shi Instrument Technology has Limited, Southwest University, Xi'an University of Posts and Telecommunications, Fujian Shunchang Rainbow Run Precision Instrument Co., Ltd., Chongqing Wei detector manufacturing Company Limited Division, Beijing Rip three yuan Instrument Co., Ltd. Anton Xiamen Electronics Co., Ltd., Chongqing Yutong System Software Co., Ltd., Beijing Automation Technology Research Institute, Shanghai Automation Instrumentation Co., Ltd., Central-day instrument Co., Ltd., Chongqing Electric Power College, Nanjing gifted times Electric Ltd., Tianjin billion Central Automation Instrumentation Technology Co., Ltd., Anhui Blue Run Automation Instrumentation Co., Ltd., Fuzhou Baxter Automation Equipment Co., Ltd. Kaifeng Instrument Co., Ltd., Zhongshan City Automation Co., Ltd., Jiangsu Jack Instrument Co., Ltd., Henan Hanwei Electronics Co., Ltd., Beijing peacekeeping Shing New Instrument Technology Co., Ltd. Xiamen-Automation Technology Co., Ltd., Hangzhou Pangu Automation System the company, Anhui Automation Instrumentation Co., Ltd., Fujian on the Run Precision Instrument Co., Ltd.

1 Scope and purpose

GB/T 17614 in this section is applicable to a line with IEC 60381-1 or IEC 60382 standard or standard analog current output signal Quasi pressure transmitter output signal. Wherein said specific test method can also be used with other output signal of the transmitter.

Inspection and routine testing methods Smart Transmitter See IEC 60770-3.

For the integration of a variety of transmitter sensor may need to refer to other special IEC and ISO standards (for example, chemical analyzers, flow Meter, etc.).

This section is intended for the inspection and routine testing transmitter, such as acceptance testing and repairs after the test, to provide technical methods. For the whole of can test analog transmitters and smart transmitter shall respectively IEC 60770-1 and (or) IEC 60770-3.

Determining whether or not the parameter based on acceptance by the manufacturer and user consultation.

According to the negotiated agreement does not have to test laboratories accredited by a professional execution.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

IEC 60050-300:2001 International Electrotechnical terminology - Electrical and electronic measuring instruments - Part 311. associated with the measurement of pass Terms - Part 312. With electronic measurement related common terminology Part 313. Types of electronic measuring instruments - Part 314. Instrument Feature term type of (International Electrotechnical Vocabulary-Electrical and electronic measurements and measuring instruments-Part 311. General terms relating to measurements-Part 312. General terms relating to electrical measurements-Part 313.

Types of electrical measuring instruments-Part 314.

Specific terms according to the type of instrument) IEC 60381-1. 1982 process control system using analog signals - Part 1. DC current signal (Analog signals for process control systems-Part 1. Direct current signals) IEC 60382:1991 Industrial Automation Instrumentation analog pneumatic signal (Analog pneumatic signal for process control systems) IEC 60410. 1973 quality inspection sampling plans and procedures (Sampling plans and procedures for inspection by attributes) IEC 60770-1:1999 Industrial process control systems Transmitters - Part 1. Methods of evaluating performance (Transmitters for use in industrial-process control systems-Part 1. Methods for performance evaluation)

IEC 60770-3:2006 Industrial process control systems Transmitters - Part 3. Smart Transmitter Evaluation Method (Transmitters for use in industrial-process control systems-Part 3. Methods for performance evaluation of intelligent transmitters)

IEC 61298-1:2008 Process measurement and control devices - General methods and procedures for evaluating performance - Part 1. General (Process measurement and control devices-General methods and procedures for evaluating performance-Part 1. General considerations) IEC 61298-2:2008 Process measurement and control devices - General methods and procedures for evaluating performance - Part 2. under reference conditions