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

GB/T 17165.1-1997

Replacing GB/T 17165.1-1997; GB/T 17165.2-1997

**Fuzzy control devices and systems Method of evaluating
performance**

(English Translation)

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Foreword

This standard is GB/T 17165.1-1997 "Fuzzy control devices and systems - Part 1. Basic terms" and GB/T 17165.2-1997 "Fuzzy control devices and systems - Part 2. Fuzzy Control unit performance testing requires a" two standard integration it made.

This standard is not intended to replace existing standard household appliances, complex systems, industrial process measurement and control related products. Use mold Fuzzy control technology products shall meet the appropriate requirements for standards of reliability and safety of electrical and electronic products.

This standard and GB/T 17165.1-1997 and GB/T 17165.2-1997 compared to the structure and content of both major changes, major change of the following.

--- The GB/T 17165.1-1997 "3 term basis", "4 fuzzy reasoning term" and "5 fuzzy control term" and GB/T 17165.2-1997 "3 definition of" merger modify this standard "3 Terms and Definitions";

--- The GB/T 17165.1-1997 of 3.11 "[0,1]" to modify this standard "[0,1]" (GB/T 17165.1-1997 3.11, 3.11 of this standard);

--- The GB/T 17165.1-1997 3.13 of "made" to modify this standard "component" (GB/T 17165.1-1997 of 3.13, 3.13 of this standard);

--- The GB/T 17165.1-1997 4.2.1 of "4.3" to modify this standard of "3.20" (GB/T 17165.1-1997 of 4.2.1, 3.19.1 of this standard);

--- The GB/T 17165.1-1997 of the "then" modify this standard "if" (GB/T 17165.1-1997 of 4.11, 3.28 of this standard);

--- The 17165.2-1997 "Pattern 3" increase in GB/T "";

--- The fuzzy inference GB/T 17165.2-1997 of "1", "2", "3" to "1 each rule block parallel to achieve independence Ideal "and" Figure 2 each block parallel fuzzy inference rules, each rule block output is the same amount "," 3 were achieved for each rule block mold Fuzzy inference, rule block part of the output as the input of other rules block ";

--- Remove the GB/T 17165.1-1997 Annex A and Annex B.

The standard proposed by China Machinery Industry Federation.

The standard measurement and control Standardization Technical Committee II by the National Technical Committee under the jurisdiction of the industrial process.

1 Scope

The criteria to determine the basis for the terms related with Fuzzy control devices and systems, fuzzy inference terms and terminology control, the fuzzy control unit Performance testing proposed general requirements, the provisions of the fuzzy control unit basic performance test methods and evaluation criteria.

This standard applies to Fuzzy control devices and related standards for systems and products in the field of research, design, development and Preparation and trade, education and other work produced by the corresponding technical documents, also apply to the use of fuzzy logic-based control technology (hereinafter referred to as Fuzzy control technology) products and related accessories. Other work involves the fuzzy control technology can also refer to use.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 5271.2-1988 Data processing - Vocabulary - Part 02 arithmetic and logic operations (eqv ISO 2382-2. 1976) GB/T 2828.1-2003 Sampling procedures for inspection - Part 1. by acceptance quality limit (AQL) retrieval batch test sample Programme (ISO 2859-1:1999, IDT) GB/T 10111-1988 dice using random numbers random sampling method

3 Terms and Definitions

The following terms and definitions apply to this standard.

Given the nature or have some certain common properties of finite or infinite number of objects of any kind, object, or concept as a whole.

(GB/T 5271.2-1988 Annex C001) 3.2 it has available to object,, or notion of what constitutes such a collection of properties. (GB/T 5271.2-1988 Annex C002) 3.3 A collective in which each element is another element of the given collection. (GB/T 5271.2-1988 Annex C004) 3.4 the deals with all things (objects, object, or concept) of.

Of an object in a given application is not the actual value assigned to it before it is undefined,, or within the boundaries of the known.

(GB/T 5271.2-1988 Annex C009) 3.6 A mathematical object whose value (ie dependent variable) to the specified method with one or more values \u200b\u200b of the argument may be. Correspond to these self