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

中华人民共和国国家标准

GB/T 2828.1-2012/ISO 2859-1: 1999

Replace GB/T 2828.1-2003

**Sampling procedures for inspection by attributes - Part 1:
Sampling schemes indexed by acceptance quality limit
(AQL) for lot-by-lot inspection**

计数抽样检验程序

第 1 部分：按接收质量限(AQL)检索的逐批检验抽样计划

(ISO 2859-1: 1999, IDT)

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China**

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Foreword

GB/T 2828 *Sampling procedures for inspection by attributes* consists of following parts:

- Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (ISO 2859-1: 1999, IDT)
- Part 2: Sampling plans indexed by limiting quality (LQ) for isolated lot inspection (ISO 2859-2: 1985, NEQ)
- Part 3: Skip-lot sampling procedures (ISO 2859-3: 2005, IDT)
- Part 4: Procedures for assessment of declared quality levels (ISO 2859-4: 2002, MOD)
- Part 5: System of sequential sampling plans indexed by acceptance quality limit(AQL)for lot-by-lot inspection (ISO 2859-5: 2005, IDT)
- Part 10: Introduction to the GB/T 2828 series of standards for sampling for inspection by attributes (ISO 2859-10: 2006, MOD)
- Part 11: Procedures for assessment of declared quality levels for small population

This is part I of GB/T 2828.

This part is drafted given in specified in GB/T 1.1-2009.

This part will replace GB/T 2828.1-2003 *Sampling procedures for inspection by attributea-Part1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.*

Comparison with GB/T 2828.1-2003, main technical changes of this part include:

- Changed the terms and definitions and symbols according to GB/T 3358.2-2009. Such as change the “spot-check characteristic curves” as “operating characteristic curves”; For interpretation of defect, changed as "defect" is appropriate for use when a quality characteristic of a product or service is evaluated in terms of usage.
- Added curve diagram $A_c=4$ into first, second and multiple average sample size

curves in Table 9;

- Revision of partial text.

This part is identical to ISO 28591: 1999 *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection* and CORR of ISO 2859-1: 1999 issued on March 01, 2001. Meanwhile, reserved following correction to ISO 2859-1: 1999 in GB/T 2828.1-2003:

- Deleted arrowhead of $A_c=12$ in Table 9;
- Transferred arrowhead from 3 into 3.15 in $A_c=7$ of Table 9;
- The horizontal ordinate “ $n \times$ number of per unit product fail/100 in $A_c=27$, $A_c=30$, $A_c=41$, $A_c=44$ of Table 9”.

Pay attention to some contents in this document may be involved patent. Implementation department of this document not responsible to identify these patents.

This Standard is proposed by National Institute of Standardization

This Standard is under the jurisdiction of National Technical Committee 21 on Application of Statistical Methods of Standardization Administration of China.

The responsible drafting organizations are National Institute of Standardization, Journal of Ordnance Engineering College of the Chinese People's Liberation Army, Mathematics and Systems Science Institute of Chinese Academy of Sciences and Xiamen Centre Testing International Inc.

The chief drafting staff of this standard includes Yu Zhenfan, Zhang Yuzhu, Ding Wenxing, Xiaohui, Zhang Fan, Feng Shiyong, Ma Yilin, Liu Wen and Wan Feng.

This standard replaces the following historical editions issued:

- GB 2828-1981, GB/T 2828-1987 and GB/T 2828.1-2003.

Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

1 Scope

1.1 This part of GB/T 2828 specifies a system for sampling inspection by attribute. This part uses terms for Acceptance Quality Limit (AQL) for inspection.

Its purpose is to induce a supplier through the economic and psychological pressure of lot non-acceptance to maintain a process average at least as good as the specified acceptance quality limit, while at the same time providing an upper limit for the risk to the consumer of accepting the occasional poor lot. Sampling schemes designated in this part are applicable, but not limited, to inspection of

- end items,
- components and raw materials,
- operations,
- materials in process,
- supplies in storage,
- maintenance operations,
- data or records, and
- administrative procedures.

1.2 These schemes are intended primarily to be used for a continuing series of lots, that is, a series long enough to allow the switching rules (9.3) to be applied. These rules provide:

- a) a protection to the consumer (by means of a switch to tightened inspection or discontinuation of sampling inspection) should a deterioration in quality be detected;
- b) an incentive (at the discretion of the responsible authority) to reduce inspection

costs (by means of a switch to reduced inspection) should consistently good quality be achieved.

Sampling plans in this part may also be used for the inspection of lots in isolation but, in this case the user is strongly advised to consult the operating characteristic curves to find a plan that will yield the desired protection (see 12.6). In that case, the user is also referred to the sampling plans indexed by limiting quality (LQ) given in GB/T 2828.2-2008.

2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the undated documents so quoted, the latest editions (Including all corrections) shall be applicable to this Standard.

GB/T 2828.3-2008 Sampling procedures for inspection by attributes - Part 3: Skip-lot sampling procedures (ISO 2859-3: 2005, IDT)

GB/T 3358.1-2009 Terms for Statistics---Part 1: Terms for General Statistics (ISO 3534-1: 2006, IDT)

GB/T 3358.2-2009 Terms for Statistics---Part 2: Terms for Statistical Quality Control (ISO 3534-2: 2006, IDT)

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this part, the terms and definitions given in GB/T 3358.1-2009 and GB/T 3358.2-2009 and the following apply.

3.1.1

inspection

activity such as measuring, examining, testing or gauging one or more characteristics of a product or service, and comparing the results with specified requirements in order to establish whether conformity is achieved for each characteristic

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