

INTERNATIONAL STANDARD

ISO
2859-1

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Sampling procedures for inspection by attributes —

Part 1 :

Sampling plans indexed by acceptable quality level
(AQL) for lot-by-lot inspection

Règles d'échantillonnage pour les contrôles par attributs —

*Partie 1 : Plans d'échantillonnage pour les contrôles lot par lot, indexés d'après le
niveau de qualité acceptable (NQA)*



Reference number
ISO 2859-1 : 1989 (E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 2859-1 was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*.

This first edition of ISO 2859-1 cancels and replaces ISO 2859 : 1974 of which it constitutes a technical revision.

ISO 2859 will consist of the following parts, under the general title *Sampling procedures for inspection by attributes* :

- *Part 0 : Introduction to the ISO 2859 attribute sampling system*
- *Part 1 : Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*
- *Part 2 : Sampling plans indexed by limiting quality (LQ) for isolated lot inspection*
- *Part 3 : Skip lot sampling procedures*

Annex A of this part of ISO 2859 is for information only.

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Sampling procedures for inspection by attributes —

Part 1:

Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection

TECHNICAL CORRIGENDUM 1

Règles d'échantillonnage pour les contrôles par attributs —

Partie 1: Plans d'échantillonnage pour les contrôles lot par lot, indexés d'après le niveau de qualité acceptable (NQA)

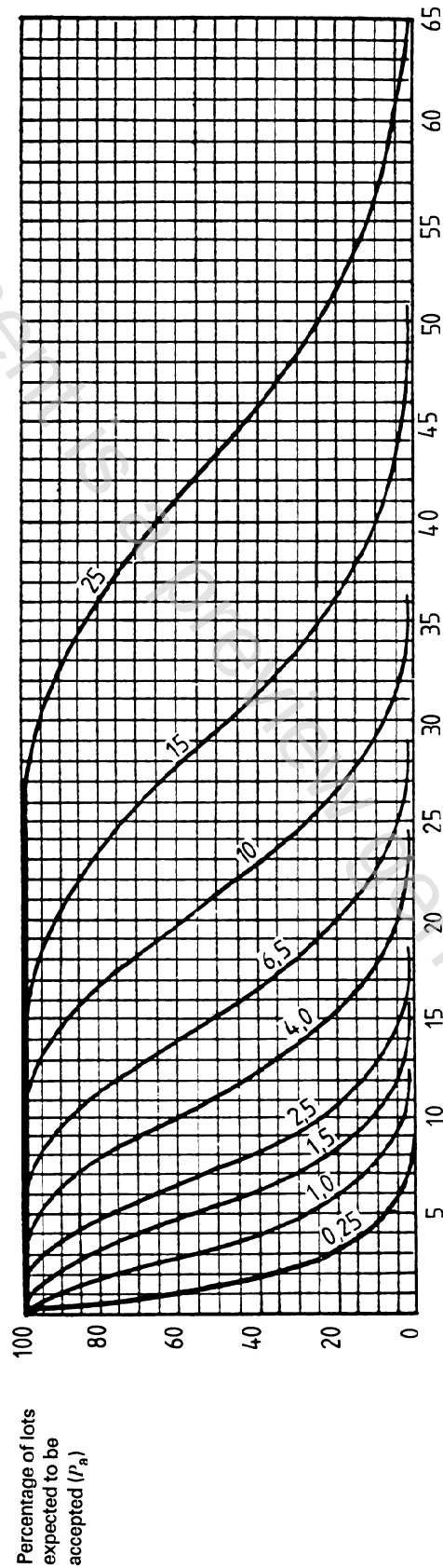
RECTIFICATIF TECHNIQUE 1

Technical corrigendum 1 to International Standard ISO 2859-1:1989 was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*, Sub-Committee SC 5, *Acceptance sampling*.

Page 48

Chart H should be replaced with the corrected version enclosed. The curve furthest to the left has been renumbered as "0,25". The numbers on the horizontal axis have been moved one place to the right.

Chart H — Operating characteristic curves for single sampling plans
(Curves for double and multiple sampling are matched as closely as practicable)



NOTE — Values on curves are Acceptable Quality Levels (AQLs) for normal inspection.

Sampling procedures for inspection by attributes —

Part 1:

Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection

1 Scope

This part of ISO 2859 specifies sampling plans and procedures for inspection by attributes of discrete items. It is indexed in terms of the Acceptable Quality Level (AQL).

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 AQL, while at the same time providing an upper limit for the risk to the consumer of accepting the occasional poor lot.

This part of ISO 2859 is not intended as a procedure for estimating lot quality or for segregating lots.

Sampling plans designated in this part of ISO 2859 are applicable, but not limited, to inspection of

- a) end items;
- b) components and raw materials;
- c) operations;
- d) materials in process;
- e) supplies in storage;
- f) maintenance operations;
- g) data or records;
- h) administrative procedures.

These plans are intended primarily to be used for a continuing series of lots sufficient to allow the switching rules to be applied, which provide for

- an automatic protection to the consumer, should a deterioration in quality be detected (by a switch to tightened inspection or discontinuance of inspection);
- an incentive to reduce inspection costs (at the discretion of the responsible authority) should consistently good quality be achieved (by a switch to reduced inspection).

These plans 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 which 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 ISO 2859-2.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 2859. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2859 are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3534 : 1977, *Statistics — Vocabulary and symbols*.

3 Terminology and definitions

The terminology and definitions used in this International Standard are in accordance with ISO 3534.

3.1 defect: A departure of a quality characteristic that results in a product, process or service not satisfying its intended normal usage requirements.

3.2 nonconformity: A departure of a quality characteristic that results in a product, process or service not meeting a specified requirement. Nonconformities will generally be classified by their degree of seriousness such as:

Class A — Those nonconformities of a type considered to be of the highest concern for the product or service. In acceptance sampling, such types of nonconformity will be assigned very small AQL values.

Class B — Those nonconformities of a type considered to have the next lower degree of concern. Therefore these can be assigned a larger AQL value than those in class A and smaller than in class C, if a third class exists, etc.