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# Sampling procedures for inspection by attributes —

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

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## 1 Scope

**1.1** This part of ISO 2859 specifies an acceptance sampling system for inspection by attributes. It is indexed in terms of the acceptance quality limit (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 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 of ISO 2859 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 of ISO 2859 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 ISO 2859-2.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 2859. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 2859 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2859-3:1991, *Sampling procedures for inspection by attributes — Part 3: Skip-lot sampling procedures.*

ISO 3534-1:1993, *Statistics — Vocabulary and symbols — Part 1: Probability and general statistical terms.*

ISO 3534-2:1993, *Statistics — Vocabulary and symbols — Part 2: Statistical quality control.*

## 3 Terms, definitions and symbols

### 3.1 Terms and definitions

For the purposes of this part of ISO 2859, the terms and definitions given in ISO 3534-1 and ISO 3534-2 and the following apply.

NOTE For ease of reference, the definitions of some of these terms are quoted from ISO 3534-1 and ISO 3534-2, while others are redefined or newly defined.

**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

**3.1.2**
**original inspection**
first inspection of a lot according to the provisions of this part of ISO 2859

NOTE This is to be distinguished from the inspection of a lot which has been resubmitted after previous non-acceptance.

**3.1.3**
**inspection by attributes**
inspection whereby either the item is classified simply as conforming or nonconforming with respect to a specified requirement or set of specified requirements, or the number of nonconformities in the item is counted

NOTE Inspection by attributes includes inspection for conformity of items as well as inspection for number of nonconformities per hundred items.

**3.1.4**
**item**
that which can be individually described and considered

EXAMPLES

— a physical item;

— a defined quantity of material;

— a service, an activity or a process;

— an organization or a person; or

— some combination thereof.

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