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Acceptance sampling procedures based on the allocation of priorities principle (APP) —

Part 1: Guidelines for the APP approach

*Règles d'échantillonnage pour acceptation fondées sur le principe
d'attribution de priorités (APP) —*

Partie 1: Lignes directrices relatives à l'approche APP



Reference number
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 5, *Acceptance sampling*.

This first edition of ISO 28598-1 cancels and replaces ISO 13448-1:2005, of which it constitutes a minor revision to change the reference number from 13448-1 to 28598-1.

With the view to achieve a more consistent portfolio, TC 69/SC 5 has simultaneously renumbered the following standards, by means of minor revisions:

Old reference	New reference	Title
ISO 2859-10:2006	ISO 28590:2017	Sampling procedures for inspection by attributes — Introduction to the ISO 2859 series of standards for sampling for inspection by attributes
ISO 8422:2006	ISO 28591:2017	Sequential sampling plans for inspection by attributes
ISO 28801:2011	ISO 28592:2017	Double sampling plans by attributes with minimal sample sizes, indexed by producer's risk quality (PRQ) and consumer's risk quality (CRQ)
ISO 18414:2006	ISO 28593:2017	Acceptance sampling procedures by attributes — Accept-zero sampling system based on credit principle for controlling outgoing quality
ISO 21247:2005	ISO 28594:2017	Combined accept-zero sampling systems and process control procedures for product acceptance
ISO 14560:2004	ISO 28597:2017	Acceptance sampling procedures by attributes — Specified quality levels in nonconforming items per million
ISO 13448-1:2005	ISO 28598-1:2017	Acceptance sampling procedures based on the allocation of priorities principle (APP) — Part 1: Guidelines for the APP approach
ISO 13448-2:2004	ISO 28598-2:2017	Acceptance sampling procedures based on the allocation of priorities principle (APP) — Part 2: Coordinated single sampling plans for acceptance sampling by attributes

Cross references between the above listed documents have been corrected in the minor revisions.

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In addition, in [5.1](#) and [6.1.3](#), the reference to ISO 2859 has been corrected to a reference to ISO 2859-1.

A list of all documents in the new ISO 28590 - ISO 28599 series of International Standards can be found on the ISO website.

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Introduction

The ISO 28598 series provides a new acceptance sampling methodology in support of quality management. This could be beneficial for users of ISO 9001 or ISO 9004. This part of ISO 28598 gives guidance and explains the methodology, which is based on the "allocation of priorities principle" (APP). ISO 28598-2 provides attributes sampling plans. Development of ISO 28598-3, to provide variables sampling plans, is under consideration.

The procedures in the ISO 28598 series have considerable advantages under certain circumstances. A novel feature is the ability to use practically any type of prior objective and subjective information when determining the appropriate sampling plan. Examples of such information are inspection results for previous lots, certification of quality management systems as being in conformity with ISO 9001, quality control data and customers' subjective estimates of the supplier's capability to provide the desired quality, all of which may be summarized in a trust level. This allows a progressive reduction in sample size as the customer's trust in the producer increases.

Another advantage of the procedures arises when successive inspections of the same lot are carried out by different parties (i.e. customer, producer and/or a third party). In the past, it was generally accepted that the parties should use similar inspection plans or schemes. This could sometimes prove impossible, due to the parties having different resources and capabilities for inspection. Moreover, due to sampling variability, in up to 25 % of cases the use of similar inspection plans or schemes could result in contradictory results between two parties. This can lead to considerable effort being required to resolve disputes that could have been avoided from the very beginning. The APP enables each of the parties to organize inspection in accordance with its own resources and capabilities for inspection, thereby significantly reducing the probability of occurrence of contradictory results. The parties are not required to coordinate their sampling plans with each other, only with specific requirements of the sampling plans such as customer's or supplier's risks.