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Sequential sampling plans for inspection by variables for percent nonconforming (known standard deviation)

ICS 03.120.30

Descriptors : sampling tables, inspection, statistical quality control, inspection by attributes

Reference number : **JIS Z 9010 : 1999 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS Z 9010**:1979 is replaced with **JIS Z 9010**:1999.

This revision has been prepared based on the first edition of **ISO 8423** issued in 1991.

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In the event of any doubts arising as to the contents, the original JIS is to be the final authority.

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Introduction This Japanese Industrial Standard has been prepared based on **ISO 8423**, *Sequential sampling plans for inspection by variables for percent nonconforming (known standard deviation)* issued in 1991 as the first edition without changing the technical contents. The sampling plans in Annex A is scheduled to be added after revising the original International Standard.

The portions underlined with dots in this Standard are not stated in the original International Standard.

1 General

1.1 Scope

1.1.1 This Japanese Industrial Standard specifies sequential sampling plans and procedures for inspection by variables of discrete items. It is complementary to **JIS Z 9009**. The plans in the main body of the standard are indexed in terms of the producer's risk point and the consumer's risk point.

Annex A specifies sequential sampling plans and procedures indexed in terms of the acceptable quality level (AQL) to supplement the system of sampling plans in **JIS Z 9015-1**.

The purpose of this Standard is to provide procedures based on a sequential assessment of inspection results, that may be used to induce the supplier through the economic and psychological pressure of non-acceptance of lots of inferior quality to supply lots of a quality having a high probability of acceptance. At the same time the consumer is protected by a prescribed upper limit to the probability of accepting lots of poor quality.

1.1.2 The sampling plans in this Standard are primarily designed for use when all of the following conditions are satisfied:

a) where the inspection procedure is to be applied to a continuing series of lots of discrete items all supplied by one producer using one production process. If there are different producers, this Standard shall be applied to each one separately;

b) where only a single quality characteristic x of these items is taken into consideration, which must be measurable on a continuous scale. If several such characteristics are of importance, this Standard does not apply;

c) where production is stable (under statistical control) and the quality characteristic x has a known standard deviation and is distributed according to a normal distribution or a close approximation to the normal distribution;

d) where a contract or standard defines an upper specification limit U, a lower specification limit L or both; an item is qualified as nonconforming when its measured quality characteristic x satisfies one of the following inequalities: