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Freight containers — Electronic seals —

Part 3: Environmental characteristics

Récipients de fret — Joints électroniques —

Partie 3: Caractéristiques environnementales

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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 104, *Freight containers*, Subcommittee SC 4, *Identification and communication*.

This second edition cancels and replaces the first edition (ISO 18185-3:2006), which has been technically revised.

ISO 18185 consists of the following parts, under the general title *Freight containers — Electronic seals*:

— *Par 1: Communication protocol*

— *Part 2: Application requirements*

— *Part 3: Environmental characteristics*

— *Part 4: Data protection*

— *Part 5: Physical layer*

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Introduction

This part of ISO 18185 defines the environmental characteristics for compliant electronic seals.

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Freight containers — Electronic seals —

Part 3: Environmental characteristics

1 Scope

This part of ISO 18185 specifies test methods and conditions for environmental characteristics of electronic seals.

This part of ISO 18185 describes the environmental requirements for the ISO 18185 series, for ISO 10374 and for ISO 17363 and for ISO 10891 since it is expected that the implementation of these International Standards will face the same international conditions. However, each of these International Standards has its own unique requirements other than environmental conditions.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17712, *Freight containers — Mechanical seals*

IEC 61000-4-2, *Electromagnetic compatibility (EMC) — Part 4-2: Testing and measurement techniques — Electrostatic discharge immunity test*

IEC 61000-4-3, *Electromagnetic compatibility (EMC) — Part 4-3: Testing and measurement techniques — Radiated, radio-frequency, electromagnetic field immunity test*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
electronic seal
e-seal
read-only, non-reusable freight container seal conforming to the high-security seal defined in ISO 17712 and to this International Standard that electronically provides evidence of tampering or intrusion through the container doors

3.2
equipment under testing
EUT
any type of device that will undergo the tests described in this part of ISO 18185

3.3
interrogator identification
interrogator ID
code used to identify the source address during every communication session originated by the interrogator

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