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Information technology — Magnetic stripes on savingsbooks

Technologies de l'information — Zone magnétique des livrets d'épargne

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 document 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 and IEC 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 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/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

This second edition cancels and replaces the first edition (ISO/IEC 8484:2007) which has been technically revised with the following changes:

— The primary standard cards held by Q-Card are used to calibrate the manufacture of secondary reference cards. Other primary standard cards held by PTB and Card testing International (CTI) are used as backup to replace cards held by Q-Card as they wear out.

— The supplier of secondary reference cards has changed from PTB to Q-Card. Wherever possible, the terms and definitions, criteria and test methods have been taken from ISO/IEC 7811-2.

Most of the magnetic characteristics are based on ISO/IEC 7811. Because savingsbooks are generally paper-based documents, some criteria and test methods have been taken from ISO/IEC 15457-2.

Notes in this International Standard are only used for giving additional information intended to assist in the understanding or use of the International Standard and do not contain provisions or requirements to which it is necessary to conform in order to be able to claim compliance with this International Standard.

NOTE Numbers for signal amplitude and flux transition spacing variation are taken from ISO/IEC 7811-2 and ISO/IEC 15457-2 and are based on testing performed on sample passbooks at two test facilities.

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Information technology — Magnetic stripes on savingsbooks

1 Scope

This International Standard specifies the characteristics and location of a magnetic stripe on a savingsbook as defined in Clause 4 and the use of such savingsbooks for international interchange. Compatibility with international interchange systems is provided through the requirements of this International Standard, enabling a savingsbook with a magnetic stripe to be read and possibly encoded in a device that is compatible with reading identification cards used in international interchange.

This International Standard specifies requirements for a magnetic stripe (including any protective overlay) on a savingsbook, the encoding technique, and coded character sets. It also specifies the characteristics of the savingsbook cover such as stiffness, minimum size, surface irregularities, roughness, and interaction between the cover material and the magnetic stripe. It takes into consideration both human and machine aspects and states minimum requirements.

Coercivity influences many of the quantities specified in this International Standard but is not itself specified. Exposure of the savingsbook to a magnetic field is likely to destroy the recorded data.

This International Standard defines performance criteria for savingsbooks. No consideration is given within this International Standard to the amount of use, if any, experienced by the savingsbook prior to test. Failure to conform to specified criteria will be negotiated between the involved parties.

ISO/IEC 10373-2 specifies the test procedures used to check savingsbooks against the parameters specified in this International Standard. References in the test method to cards refer to savingsbooks.

NOTE 1 Numeric values in the SI and/or Imperial measurement system in this International Standard might have been rounded off and are therefore consistent with, but not exactly equal to, each other. Either system can be used, but the two are not be intermixed or reconverted. The original design was made using the Imperial measurement system.

NOTE 2 National systems can use different specifications, such as DIN, as well as proprietary specifications for closed systems.

2 Conformance

A savingsbook is in conformance with this International Standard if it meets all mandatory requirements specified herein. Default values apply if no others are specified.

3 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 2493, *Paper and board — Determination of resistance to bending*

ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO/IEC 10373-2, *Identification cards — Test methods — Part 2: Cards with magnetic stripes*

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4 Terms and definitions

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

4.1
primary standard
set of reference cards established by Physikalisch-Technische Bundesanstalt (PTB) and maintained by PTB, Q-Card, and WG1 secretariat that represent the values of U_R and I_R designated RM 7811-2

4.2
secondary standard
reference card designated RM 7811-2 that is related to the primary standard as stated in the calibration certificate supplied with each card

Note 1 to entry: Secondary standards can be ordered from Q-Card, 301 Reagan St., Sunbury, PA 17801, USA. The source of secondary standards will be maintained at least until 2018.

4.3
unused unencoded savingsbook
savingsbook possessing all the components required for its intended purpose, which has not been subjected to any personalization or testing operation, and which has been stored in a clean environment with no more than a 48 h exposure to daylight at temperatures between 5 °C and 30 °C and a humidity between 10 % and 90 % without experiencing thermal shock

4.4
unused encoded savingsbook
unused unencoded savingsbook (4.3) that has only been encoded with all the data required for its intended purpose (e.g. magnetic encoding, electronic encoding)

4.5
returned savingsbook
unused encoded savingsbook (4.4) after it has been issued to the savingsbook holder and returned for the purpose of testing

4.6
flux transition
location of the greatest rate of change with distance of the magnetisation

4.7
reference current
I_R
minimum recorded current amplitude under the given test conditions that causes, on the reference card, a readback signal amplitude equal to 80 % of the reference signal amplitude, U_R, at a density of 8 flux transitions per millimetre (200 flux transitions per inch) as shown in Figure 4

4.8
reference flux level
F_R
flux level in the test head that corresponds to the reference current, I_R

4.9
test recording currents
two recording currents defined by

I_{min} = recording current corresponding to 3,5 F_R

I_{max} = recording current corresponding to 5,0 F_R

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