
**Identification cards — Recording
technique —**

**Part 8:
Magnetic stripe — Coercivity of 51,7 kA/m
(650 Oe)**

Cartes d'identification — Technique d'enregistrement —

Partie 8: Zone magnétique — Coercivité de 51,7 kA/m (650 Oe)

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for world-wide 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

ISO/IEC 7811 consists of the following parts, under the general title *Identification cards — Recording technique*:

- *Part 1: Embossing*
- *Part 2: Magnetic stripe — Low coercivity*
- *Part 6: Magnetic stripe — High coercivity*
- *Part 7: Magnetic stripe — High coercivity, high density*
- *Part 8: Magnetic stripe — Coercivity of 51,7 kA/m (650 Oe)*

ISO/IEC 7811-8 was prepared by JTC 1, *Information technology, SC 17, Cards and personal identification*. It is similar to ISO/IEC 7811-2 except that its higher coercivity requires higher energy to encode the data. The user of ISO/IEC 7811-8 is encouraged to review the entire standard for revisions and updates. The major differences from ISO/IEC 7811-2 are listed below.

- a) In terms of coercivity, ISO/IEC 7811-8 media (51,7 kA/m, 650 Oe) is between ISO/IEC 7811-2 (23,9 kA/m, 300 Oe) and ISO/IEC 7811-6 (minimum 199 kA/m, 2500 Oe).
- b) The primary application for 51,7 kA/m (650 Oe) is for hotel guest-room entry systems worldwide.
- c) ISO/IEC 7811-8 specifies the “window” to be used to establish Table 1 values for 51,7 kA/m (650 Oe) media. The main difference being in the $I_{\min}$ ($6,5 F_R$) and $I_{\max}$ ($8 F_R$) values which define the extremities of the window.
- d) Encoding techniques, specification and error detection are not specified in this part of ISO/IEC 7811.
- e) Wherever possible, the same definitions, criteria and test methods are used in ISO/IEC 7811-2, ISO/IEC 7811-6, and ISO/IEC 7811-8.

Notes in this International Standard are only used for giving additional information intended to assist understanding or use 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.

Identification cards — Recording technique —

Part 8:

Magnetic stripe — Coercivity of 51,7 kA/m (650 Oe)

1 Scope

ISO/IEC 7811 defines the characteristics for identification cards as defined in Clause 4 of this part of ISO/IEC 7811, and the use of such cards for international interchange.

This part of ISO/IEC 7811 specifies requirements for a 51,7 kA/m (650 Oe) magnetic stripe (including any protective overlay) on an identification card. The encoding technique and coded character sets are not defined, however, the specifications of ISO/IEC 7811-2 may be used. It takes into consideration both human and machine aspects and states minimum requirements.

Coercivity influences many of the quantities specified in this part of ISO/IEC 7811. It has a nominal value of 51,7 kA/m (650 Oe), but is not itself specified. Exposure of the card to a magnetic field is likely to destroy the recorded data.

ISO/IEC 7811 provides criteria to which cards are to perform. No consideration is given within ISO/IEC 7811 to the amount of use, if any, experienced by the card prior to test. Failure to conform to specified criteria should be negotiated between the involved parties.

ISO/IEC 10373-2 specifies the test procedures used to check cards against the parameters specified in this part of ISO/IEC 7811.

NOTE Numeric values in the SI and/or Imperial measurement system in this part of ISO/IEC 7811 may have been rounded off and therefore are consistent with, but not exactly equal to, each other. Either system may be used, but the two should not be intermixed or reconverted. The original design was made using the Imperial measurement system.

2 Conformance

A prerequisite for conformance with this part of ISO/IEC 7811 is conformance with ISO/IEC 7810. An identification card is in conformance with this part of ISO/IEC 7811 if it meets all mandatory requirements specified herein. Default values apply if no others are specified.

3 Normative references

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

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

ISO/IEC 7810, *Identification cards — Physical characteristics*

ISO/IEC 7811-2, *Identification cards — Recording technique — Part 2: Magnetic stripe — Low coercivity*