SLOVENSKI STANDARD
SIST ISO 9144:1995

01-maj-1995

Vrednostni papirji - Vrstica za optično razpoznavo znakov - Pozicija in struktura

Securities -- Optical character recognition line -- Position and structure

Valeurs mobilières -- Ligne de lecture optique -- Position et structure

Ta slovenski standard je istoveten z: **ISO 9144:1991**

__ICS:__

35.240.40	Uporabniške rešitve IT v bančništvu	IT applications in banking

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INTERNATIONAL STANDARD

ISO
9144

Securities — Optical character recognition line — Position and structure

Valeurs mobilières — Ligne de lecture optique — Position et structure

ISO 9144:1991(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9144 was prepared by Technical Committee ISO/TC 68, *Banking and related financial services*, Sub-Committee SC 4, *Securities*.

Annexes A, B, C and D form an integral part of this International Standard.

Introduction

The optical reading of securities is an important step towards the further rationalization of securities processing since it results in lower handling costs, faster and more reliable processing, and thus facilitates controls. However, optical reading does not release the recipient from carrying out customary authenticity checks.

The definition of the location and structure of an Optical Character Recognition (OCR) line as contained in this International Standard must satisfy both visual and machine readable requirements.

The specific needs of the securities administration, securities printing, and OCR reading techniques are taken into account.

Benefits of OCR processing can only be achieved when a sufficiently high volume of OCR readable securities has been issued.

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INTERNATIONAL STANDARD

ISO 9144:1991(E)

Securities — Optical character recognition line — Position and structure

1 Scope

The purpose of this International Standard is

a) to define the location and size of one or more areas on the securities (sheets, coupons, talons) for the printing of a line of characters readable by OCR equipment;

b) to define the position of this line within the above-mentioned areas;

c) to define the structure and the contents of this line.

This International Standard applies to all types of printed securities (both bearer and registered), such as bonds, shares, stock certificates, warrants, coupons and talons, whether they are circulating internationally or domestically.

Wherever this International Standard permits options, it is recommended at a national level to select and standardize one of them. At the time of its issuance, securities were in existence with OCR lines which do not fully conform with this International Standard, e.g. Eurobonds and French "Certificats Représentatifs". Examples are given in annex A.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1073-2:1976, *Alphanumeric character sets for optical recognition — Part 2: Character set OCR-B — Shapes and dimensions of the printed image.*

ISO 1831:1980, *Printing specifications for optical character recognition.*

ISO 6166:1987, *Securities — International securities identification numbering system (ISIN).*

ISO 8109:1990, *Banking and related financial services — Securities — Format of Eurobonds.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 clear area: An area of specified position and dimensions within which information intended for reading by OCR is to be printed. This area should always be parallel to other printed text on the document.

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3.2 OCR line: This is a line of information to be read by an optical character reader. It is divided into fields of one or more OCR characters.

3.3 certificate number: Number identifying one specific document of any security issue. This definition includes transferable or negotiable receipts representing underlying securities.

3.4 series designation: The series designation differentiates portions of the same issue (e.g. for redemptional drawing purposes).

3.5 default field length: Field length if this length is not specified at a national level.

4 Paper characteristics

This International Standard assumes that the paper specifications of the security are in compliance with ISO 1831 with the exception of references to the watermark.

5 Specifications and size of the clear area (see annex B)

5.1 Dimensions

5.1.1 The clear area shall have a height of exactly 9 mm.

5.1.2 The clear area shall have a minimum width of 95 mm (for the maximum width, see 5.2.2).

5.2 Location of the clear area(s) on the security sheet

5.2.1 The horizontal centreline of the clear area(s) shall be located exactly 23,5 mm or 34,5 mm from the upper edge and/or exactly 7,5 mm from the lower edge of the security sheet.

5.2.2 The right edge of the clear area shall be located exactly 5 mm or 25 mm from the right edge of the security sheet. The left edge of the clear area shall be located not less than 5 mm from the left edge of the security sheet.

5.3 Location of the clear area on the coupons

5.3.1 The horizontal centreline of the clear area shall be located exactly 7,5 mm from the lower edge of the coupon.

5.3.2 The right edge of the clear area shall be located exactly 5 mm from the right edge of the coupon. The left edge of the clear area shall be located exactly 5 mm from the left edge of the coupon.

5.4 Background of the clear area(s)

The background of the clear area(s) shall be white or tinted in a sufficiently light colour; for further explanations see ISO 1831, 5.4 and annex B.

6 Printing specifications of the OCR line

6.1 Characters to be used

In accordance with annex C of this International Standard, the only characters to be used are the 47 OCR-B, size 1 characters as defined in ISO 1073-2:1976, 5.2, sub-set 2 and 3.6, with the associated tables.

For technical reasons it is recommended to avoid the use of the characters "full stop" and "comma", as well as of the letters I, O, and Q.

6.2 OCR line and characters

The OCR line shall be centred horizontally on the centreline of the clear area.

6.2.1 The OCR line shall be right justified.

6.2.2 The OCR characters shall be printed with a constant pitch of 10 characters per inch (25,4 mm). The printed characters shall have the print tolerance range X (see ISO 1831:1980, 5.2 and table 2). For other specifications on the print quality (quality of the printed image, character skew, character spacing, and alignment within a line) see ISO 1831:1980, clauses 5 and 6 and annexes B, C, and D.

7 Structure of the OCR lines

The structure of the lines is illustrated in annex D.

7.1 Types

There may be two types of OCR lines:

— the Security Identification Line (SIL) which is mandatory and contains the information needed to identify the certificate;

— the Auxiliary Information Line (AIL) which is optional and contains additional information.

The SIL and the AIL may be located in the upper and the lower clear areas respectively. Alternatively, the SIL and the AIL may be located consecutively (specifically AIL followed by SIL) in the same clear area.

7.2 General rules for structuring the SIL and AIL

7.2.1 Fields shall be separated either by one space or by one " + " sign. Only one method shall be used at a national level. No other characters shall be used as field separators.

7.2.2 The length of the fields shall be standardized at a national level. Where no national standard exists, default field lengths as specified in 7.3 shall apply.

7.2.3 The information characters within each field shall be right justified and unused positions shall be zero filled.

7.2.4 Unused fields shall consist of at least one zero.

7.3 The SIL

The SIL shall always consist of 37 characters (field separators included), and shall be composed of six fields appearing as follows from left to right:

7.3.1 Minimum of one space.

The space preceding field one may be replaced by the sign "<".

7.3.2 Field one: Special code.

— Format: Fixed length, one alphanumeric character.

— Contents: May be defined at a national level, e.g. a check digit.

NOTE 1 See also annex A.

7.3.3 One space or " + " sign.