SRI LANKA STANDARD 1033 PART 1: 2019
(ISO/IEC 7812-1: 2017)
UDC 088.22

IDENTIFICATION CARDS – IDENTIFICATION OF ISSUERS PART 1: NUMBERING SYSTEM

(Second Revision)

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
IDENTIFICATION CARDS – IDENTIFICATION OF ISSUERS
PART 1: NUMBERING SYSTEM
(Second Revision)

SLS 1033-1: 2019
(ISO/IEC 7812-1: 2017)

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Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This Standard does not purport to include all the necessary provisions of a contract

Sri Lanka Standard
IDENTIFICATION CARDS – IDENTIFICATION OF ISSUERS
PART 1: NUMBERING SYSTEM
(Second Revision)

NATIONAL FORWARD

This Standard was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2019-03-07.

This is the second revision of **SLS 1033: Part 1: 2007** and identical with **ISO/IEC 7812: 2017 Identification cards – identification of issuers, Part 1: Numbering system**, published by the International Organization for Standardization (ISO) / International Electrotechnical Commission (IEC).

This Standard provides a numbering system for the identification of card issuers operating within an interchange environment, the format of the issuer identification number and the primary account number.

TERMINOLOGY AND CONVENTIONS

The text of the International Standard has been accepted as suitable for publication, without deviation, as a Sri Lanka Standard. However, certain terminology and conventions are not identical with those used in Sri Lanka Standards. Attention is therefore drawn to the following;

a) Wherever the word “International Standard” appear referring to this Standard should be interpreted as “Sri Lanka Standard”.

b) The comma has been used throughout as a decimal marker. In Sri Lanka Standards it is the current practice to use the full point at the base as the decimal marker.

c) Wherever page numbers are quoted, they are ISO/IEC page numbers.

SLS 1033-1: 2019

INTERNATIONAL STANDARD

ISO/IEC 7812-1

Fifth edition
2017-01

Identification cards — Identification of issuers —

Part 1: Numbering system

Cartes d'identification — Identification des émetteurs —

Partie 1: Système de numérotation

Reference number
ISO/IEC 7812-1:2017(E)

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 17, *Cards and personal identification*.

This fifth edition cancels and replaces the fourth edition (ISO/IEC 7812-1:2015), which has been technically revised. Key changes made in this edition:

— Clause 3: added definitions for "acquirer" and "card acceptor";

— Clause 3: removed the definition of "major industry identifier";

— Clause 3: removed definition of "registration management group" to ISO/IEC 7812-2;

— Removed previous outline of major industry identifier descriptions;

— Clause 4: revised the length of an IIN to 8 digits (from 6 digits);

— Clause 4: revised the minimum length of a PAN to 10 digits (from 8 digits);

— Annex A: modified A.2 to be the role of the registration authority (from previously being defined as role of registration management group);

— Annex B: revised the example to reflect an 8 digit IIN.

A list of all the parts in the ISO 7812- series, can be found on the ISO website.

Introduction

This document is one of a series of International Standards specifying:

— a numbering system for the identification of card issuers operating within an interchange environment, the format of the issuer identification number and the primary account number;

— application and registration procedures for card issuers who operate a card program in an international interchange environment.

Card issuers not operating in an international interchange environment are encouraged to contact their sponsoring authorities for a number assigned by that national standards body, or the Registration Authority (RA) if no Sponsoring Authority (SA) exists. Use of a national IIN will avoid conflicts if the cards are used in an international interchange environment.

Identification cards — Identification of issuers —

Part 1: Numbering system

1 Scope

This document specifies a numbering system for the identification of the card issuers, the format of the issuer identification number (IIN) and the primary account number (PAN).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO/IEC 7812-2, *Identification cards — Identification of issuers — Part 2: Application and registration procedures*

ISO 8583-1, *Financial transaction card originated messages — Interchange message specifications — Part 1: Messages, data elements and code values*

ITU-T Recommendation E. 118,*The international telecommunication charge card*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
acquirer
institution (or its agent) which acquires from the card acceptor the data relating to the transaction and initiates the data into an interchange system

3.2
card
form factor (physical or virtual) provided by a card issuer

Note 1 to entry: For this document, this definition is not limited to ISO/IEC 7810 ID-1 card. Some examples of other card types include but are not limited to virtual, thin flexible, single-use, integrated-circuit or mobile devices.

3.3
card acceptor
party accepting the card for the purpose of presenting transaction data to an acquirer or intermediary facilitating the transaction flow

3.4
cardholder
customer associated with the primary account number

3.5
card issuer
institution (or its agent) that issues the card to the cardholder

Note 1 to entry: For institutions in the financial services industry and regulatory community, a legal entity as defined in ISO 17442, or its agent, that issues the card to the cardholder

3.6
individual account number
number assigned by the card issuer for the purpose of identifying an individual account

3.7
interchange
exchange of transaction data between two or more participants

3.8
issuer identification number
IIN
number that identifies the card issuer and that forms the first part of the primary account number

3.9
primary account number
PAN
number consisting of a maximum of 19 digits that identifies the card issuer and the cardholder

Note 1 to entry: See 4.1 and Figure 1.

3.10
registration authority
RA
organization appointed by the ISO Council, responsible for assigning IINs and maintaining the *ISO Register of Card Issuer Identification Numbers*

4 Numbering system

4.1 PAN format

The PAN of a card (see 3.9) is made up of three main components:

a) the IIN, 8 numeric digits in length (see 4.2);

b) the individual account number (see 4.3); and

c) a check digit (see 4.4).

See Figure 1 for number format.

NOTE For national numbering systems, refer to Annex A.

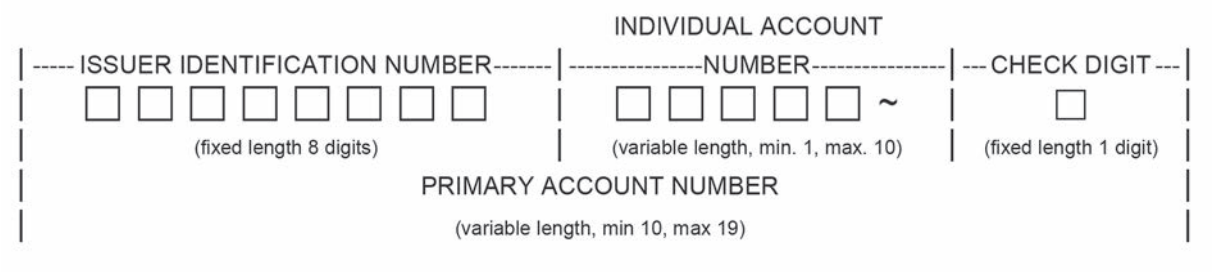


Figure 1 — Composition of the Primary Account Number

4.2 IIN

All IINs issued in accordance with this document shall be applied for and registered as specified in ISO/IEC 7812-2.

Applicants whose applications fulfil the criteria for approval specified in ISO/IEC 7812-2 will be assigned an IIN or, in the case of a block assignment, a block of IINs.

4.2.1 IINs beginning with "00"

IINs in the range "00" have been allocated for assignment to institutions other than card issuers in order to accommodate requirements in ISO 8583-1. Applicants applying for IINs commencing with "00" shall refer to ISO 8583-1, where application procedures and an application form are provided.

4.2.2 IINs beginning with "80"

IINs beginning with "80" are for use by healthcare institutions. These IINs are managed by individual national registration authorities. Each national registration authority shall register with the RA so that they can be identified in the *ISO Register of Card Issuer Identification Numbers*. The format of the entry for the national registration authorities shall be "80[CCC]", where "80" denotes healthcare and "CCC" is the three-digit numeric country code, as specified in ISO 3166-1. The formatting and coding of the digits following "80[CCC]" is at the discretion of the regional healthcare authorities. Enquiries for details of national healthcare registration authorities may be made to the RA. See http://www.iso.org/iso/maintenance_agencies

4.2.3 IINs beginning with "89"

IINs beginning with "89" are for use by telecommunications administrations and recognized private operating agencies in accordance with ITU-T/Rec. E.118. These IINs are maintained by the International Telecommunication Union, and applicants applying for IINs for use on telecommunications cards shall apply for an IIN commencing with "89". Enquiries for IINs starting with "89" shall be made to:

International Telecommunication Union, Place des Nations,

1211 Geneva 20, Switzerland,

Telephone: +41 227 305 211, Fax: + 41 227 337 256.

http://www.itu.int/en/Pages/default.aspx

4.2.4 IINs beginning with "9"

IINs beginning with "9" are reserved for use by national standards bodies, where they exist, or by the RA in the absence of a national standards body. The format of the entry for the national standards bodies shall be "9[CCC]", where "9" denotes national use and "CCC" is the three-digit numeric country code, as specified in ISO 3166-1.

In the interest of international conformity, national standards bodies are advised to assign IINs in accordance with the recommendations given in Annex A.

The RA will oversee the assignment of any 9 series IINs in any country where a national standards body does not exist, or has not implemented an IIN management function. Any 9 series IIN assigned by the RA is 9 digits in length, and will conform to the structure of '9' followed by the three-digit numeric country code, as specified in ISO 3166-1.

4.3 Individual account number

The individual account number (see Figure 1) shall be assigned by the card issuer. It immediately follows the IIN and is variable in length with a minimum of 1 and maximum of 10 digits.

4.4 Check digit

The individual account number (see 4.3) shall be followed by a check digit. This digit shall be calculated on all the preceding digits of the PAN (see Figure 1) and shall be computed according to the Luhn formula for modulus-10 check digit (see Annex B).

Annex A
(informative)

National numbering systems for card issuers

A.1 Introduction

IINs beginning with 9 have been assigned for use by national standards bodies in order to establish numbering systems for card issuers. If no national numbering system exists, or if the national standards body is unable to establish a national numbering system, applicants for IINs in that country may apply through the RA.

NOTE ISO maintains a listing on national numbering registries, refer to www.iso.org

A.2 Contact with the Registration Authority (RA)

The RA acting on behalf of ISO/IEC JTC 1/SC 17 shall, on request, provide advice and counsel to any national standards body on the establishment and operation of a national numbering system. National standards bodies that intend to set up national numbering systems are asked to supply the RA with details of the national procedures for the assignment of IINs, the method used to identify card issuers, and the name of the organization administering the system.

A.3 Operation of national numbering systems

National standards bodies are advised to establish rules by means of national standards or other methods for identifying card issuers and individual cardholders (See 4.2.4). They are also advised to make arrangements for the administration of the system, for application and assignment of IINs and the maintenance of a register of assigned IINs. For these reasons, national standards bodies may wish to appoint an organization to act as their agent in the administration and maintenance of the system within their countries.

Any national standards body, or designate, who manages a national numbering system is required to report all assignments to the RA on a monthly basis.

A.4 Structure of IINs used for National schemes

National standards bodies are required to implement national numbering systems in the format of 9CCCxxxx, where “CCC” is the three-digit numeric country code in accordance with ISO 3166-1. IINs assigned under a national numbering system should be minimum 8 digits in length. National standards bodies developing national numbering systems shall consider using an IIN greater than 8 digits to support a larger number of card issuers.

Any 9 series IINs under the management of the RA will be assigned as 9 digits in length.

It is recommended that national standards bodies comply with ISO/IEC 7812-1 and PAN length as defined in Figure 1.

Annex B
(normative)

Luhn formula for computing modulus-10 “double-add-double” check digits

The check digit is calculated on all eight digits of the IIN and all of the digits of the individual account number (variable up to 10 digits).

The following steps are involved in this calculation:

- ☐ Step 1: Double the value of alternate digits beginning with the first right-hand digit (low order).
- ☐ Step 2: Add the individual digits comprising the products obtained in Step 1 to each of the unaffected digits in the original number.
- ☐ Step 3: Subtract the total obtained in Step 2 from the next higher number ending in 0 [this is the equivalent of calculating the “tens complement” of the low-order digit (unit digit) of the total]. If the total obtained in Step 2 is a number ending in zero (30, 40, etc.), the check digit is 0.

EXAMPLE

Issuer identification number and individual account number without check digit: 6123 4512 3456 789

6	1	2	3	4	5	1	2	3	4	5	6	7	8	9	PAN
X2		X2		X2		X2		X2		X2		X2		X2	Step 1
1+2+	1+	4+	3+	8+	5+	2+	2+	6+	4+	1+0+	6+	1+4+	8+	1+8	= 67 Step 2
Next higher number ending in 0 = 70 70 – 67 = 3															Step 3

Issuer Identification Number and Individual Account Number with check digit: 6123 4512 3456 7893

Bibliography

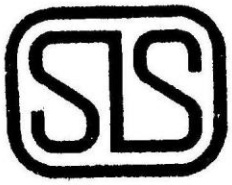
[1] ISO 17442, *Financial services — Legal Entity Identifier (LEI)*

ICS 35.240.15
Price based on 7 pages

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*



Printed at SLSI (Printing Unit)

SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.

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