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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Identification cards — Integrated circuit(s) cards with contacts —

Part 2:
Dimensions and location of the contacts

Cartes d'identification — Carte à circuit(s) intégré(s) à contacts —

Partie 2: Dimensions et emplacement des contacts

Reference number
ISO 7816-2 : 1988 (E)

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7816-2 was prepared by Technical Committee ISO/TC 97, *Information processing systems.*

ISO 7816 will consist of the following parts, under the general title of, *Identification cards — Integrated circuit(s) cards with contacts.*

— *Part 1 : Physical characteristics.*

— *Part 2 : Dimensions and location of the contacts.*

— *Part 3 : Electronic signals and exchange protocols.*

Annex A of this part of ISO 7816 forms an integral part of the standard. Annex B is for information only.

Introduction

This International Standard is one of a series of standards describing the parameters for identification cards as defined in ISO 7810 and the use of such cards for international interchange.

Identification cards — Integrated circuit(s) cards with contacts

Part 2:
Dimensions and location of the contacts

1 Scope

This part of ISO 7816 specifies the dimensions, locations and assignment for each of the contacts on integrated circuit(s) cards of an ID-1 card type.

This part of ISO 7816 is to be used in conjunction with ISO 7816-1.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7816. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7816 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7810, *Identification cards - Physical characteristics*

ISO 7816-1, *Identification cards - Integrated circuit(s) cards with contacts - Part 1 : Physical characteristics*

3 Dimensions of the contacts

The shape and the surface of the conductive zones which include each contact are not defined in this part of ISO 7816.

Each contact shall have a minimum rectangular surface area not less than the dimensions specified in Figure 1.

This part of ISO 7816 does not define the maximum dimensions or shape of the contacts except for the requirement that each contact shall be electrically isolated from the other contacts.

Dimensions in millimetres

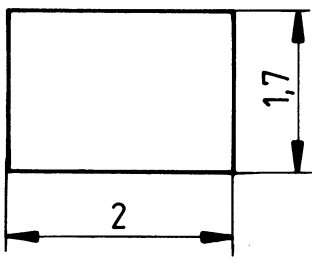

Figure 1 - Minimum dimensions of the contacts

4 Number and location of the contacts

This part of ISO 7816 defines eight contacts referred to as C1 to C8.

The contacts are located as shown in figures 2 or 3; (see also annex B).

The contacts may be located on either the front or the back of the card, but in either case the dimensions are referenced to the left and upper edges of the corresponding surface of the card.

See annex A for the test method.

Dimensions in millimetres

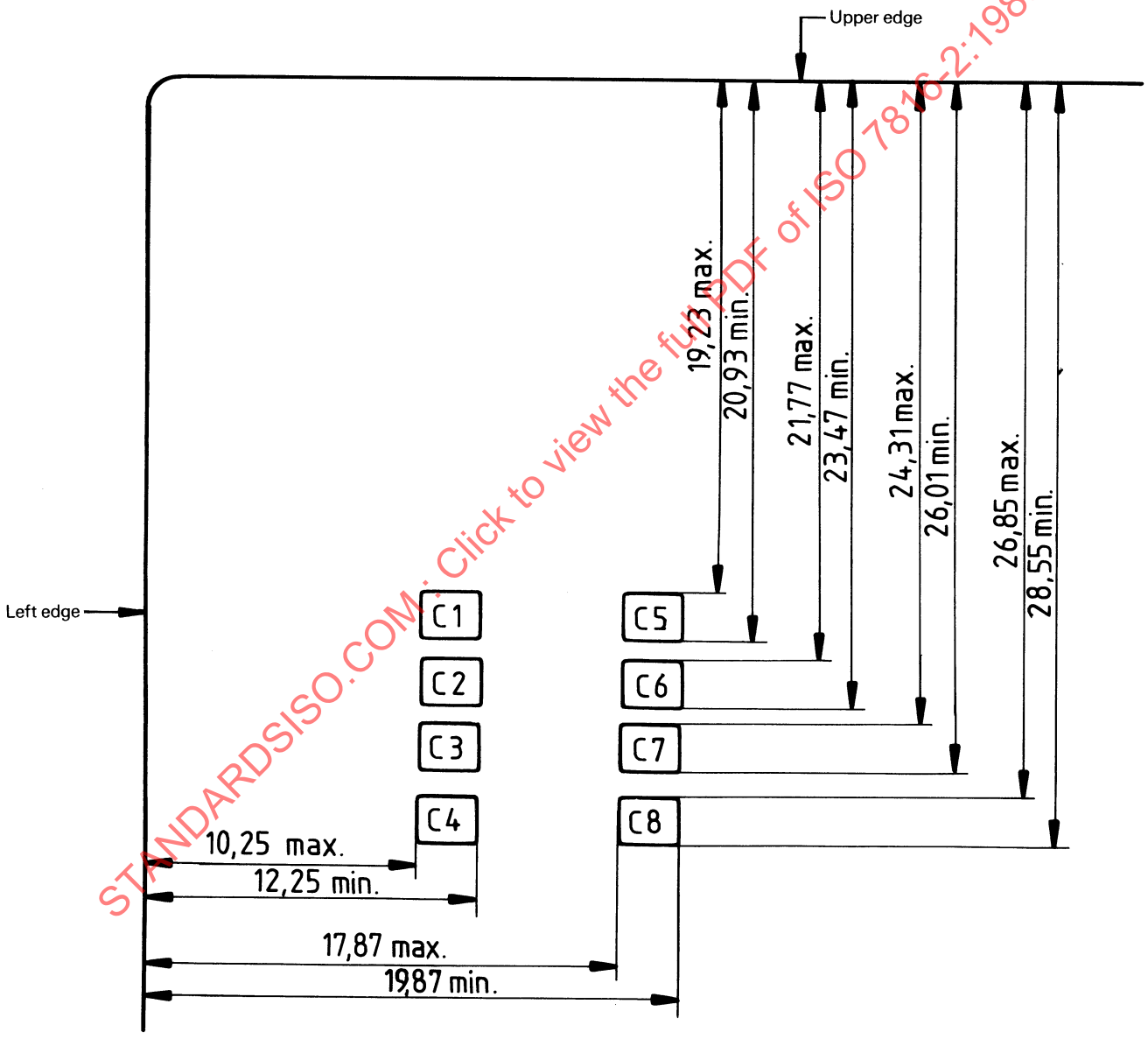

Figure 2 - Contacts location

Dimensions in millimetres

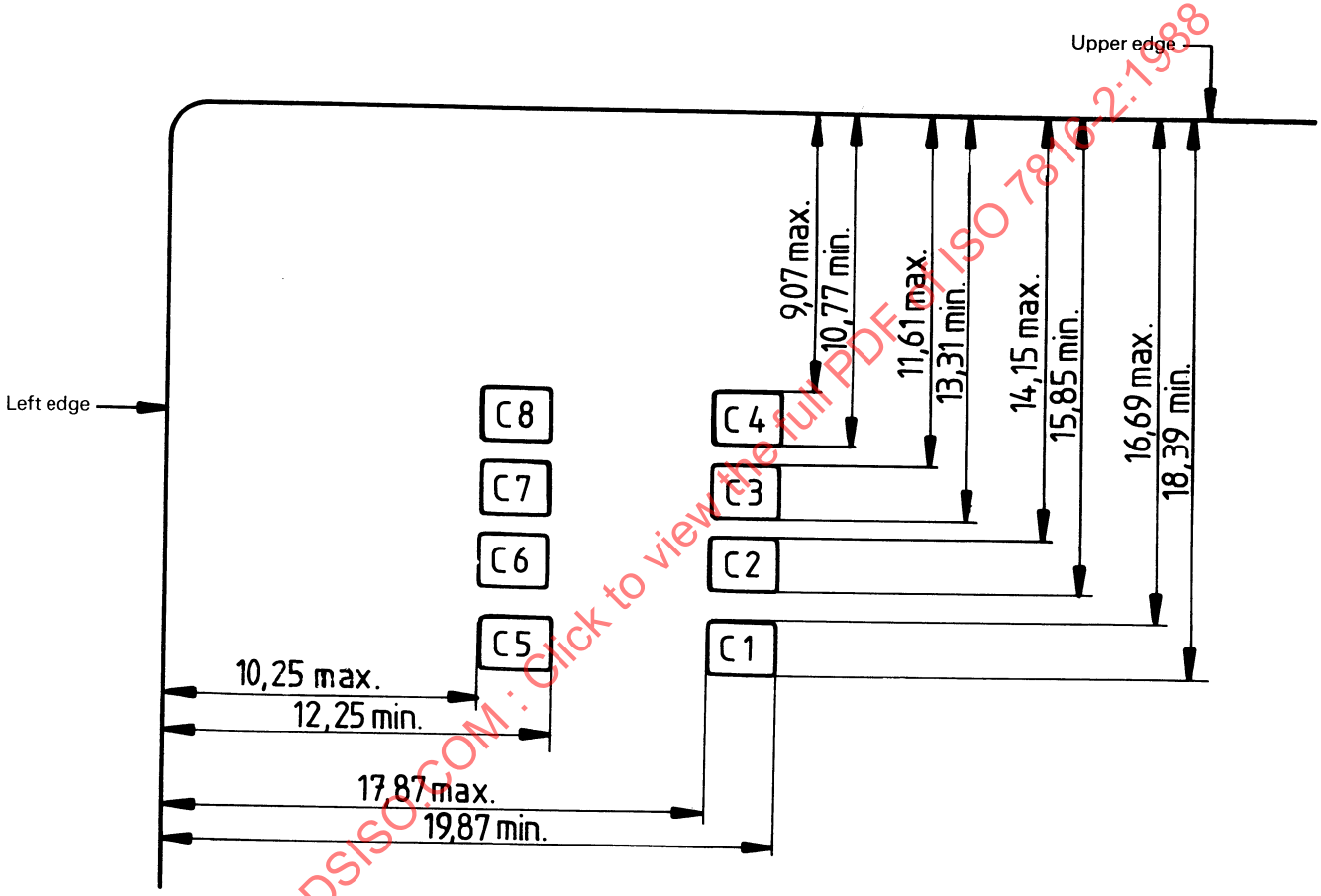

Figure 3 - Transitional contacts location

This contact location, which has been developed and implemented prior to this International Standard, will continue to exist no later than the end of 1990.

5 Assignment of the contacts

Each numbered contact shall be assigned as specified in Table 1.

Table 1 - Assignment of the contacts

Contact No.	Assignment	Contact No.	Assignment
C1	VCC (Supply voltage)	C5	GND (Ground)
C2	RST (Reset signal)	C6	VPP (Programming voltage)
C3	CLK (Clock signal)	C7	I/O (Data input/output)
C4	Reserved to ISO/IEC JTC 1/SC 17 for future use	C8	Reserved to ISO/IEC JTC 1/SC 17 for future use

Annex A
(normative)

Location of the contacts - Method of measurement

Construct two perpendicular axes of reference X and Y intersecting at 0. Mark three reference points on the axes: points P2 and P3, measured 11,25 mm and 71,25 mm from 0, shall be marked on the X axis, and point P1, 27,00 mm from 0, on the Y axis. Place the card, whose contacts are to be measured, contact side up, so that the top edge touches points P2 and P3, and the left edge touches at P1 (see figure A.1).

Measure dimensions A, B, C and D for each contact from the two axes, with equipment having an accuracy of 5/100 mm.

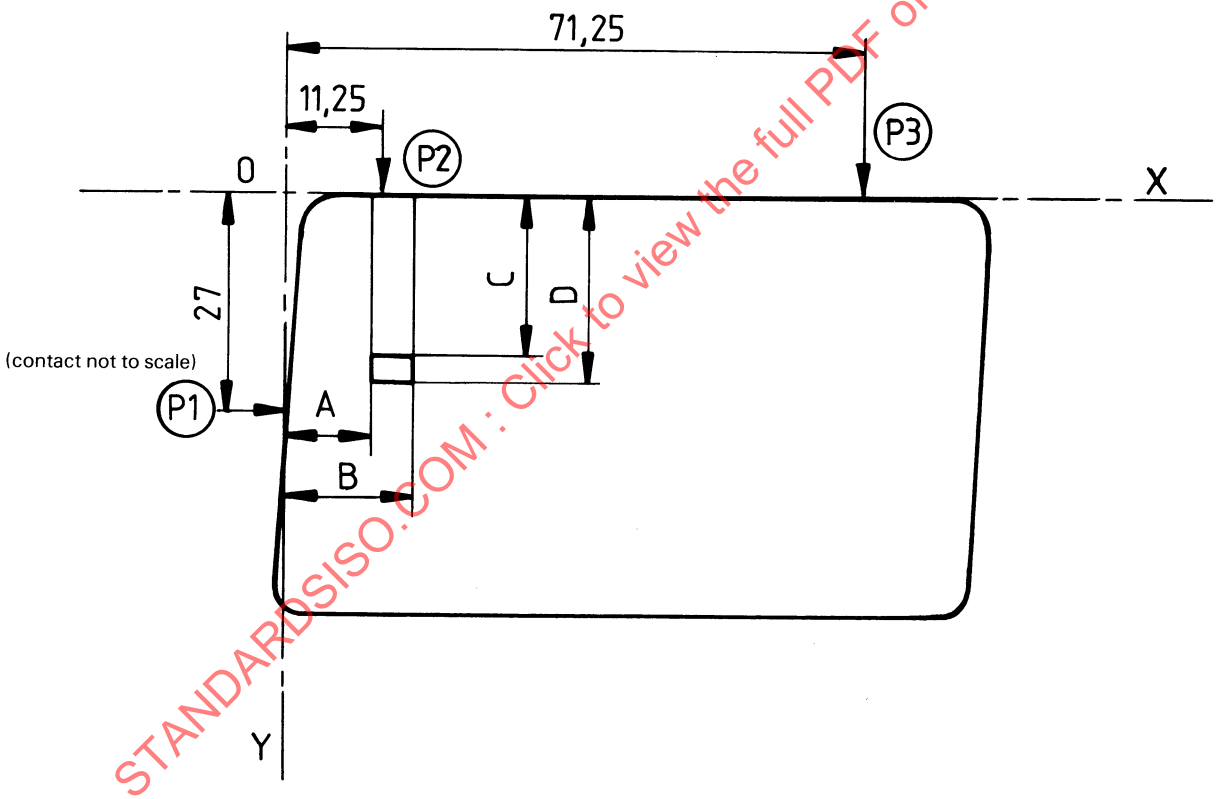

Figure A.1