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**Identification cards — Integrated circuit  
cards —**

**Part 6:  
Interindustry data elements for  
interchange**

*Cartes d'identification — Cartes à circuit intégré*

*Partie 6: Éléments de données intersectoriels pour les échanges*

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## Contents

Page

Foreword .....	iv
Introduction .....	vi
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Abbreviations and notation .....	2
5 Maintenance of interindustry data objects .....	2
6 Specific interindustry data elements .....	2
7 Identification of integrated circuit manufacturers .....	5
8 Interchange profile .....	6
9 Interindustry data elements in alphabetic order .....	7
10 Interindustry tags in numeric order .....	12
11 Interindustry templates .....	15
Annex A (normative) Application for integrated circuit manufacturers number .....	18
Bibliography .....	19

## 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.

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

The main task of the joint technical committee is to prepare International Standards. 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.

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.

ISO/IEC 7816-6 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Identification cards*, Subcommittee SC 17, *Cards and personal identification*.

This second edition, together with the second editions of parts 4, 5, 8 and 9, after an in-depth reorganization of these five parts, cancels and replaces:

- ISO/IEC 7816-4:1995, *Information technology — Identification cards — Integrated circuit(s) cards with contacts — Part 4: Interindustry commands for interchange*
- ISO/IEC 7816-4:1995/Amd.1:1997, *Information technology — Identification cards — Integrated circuit(s) cards with contacts — Part 4: Interindustry commands for interchange — Amendment 1: Impact of secure messaging on the structure of APDU messages*
- ISO/IEC 7816-5:1994, *Identification cards — Integrated circuit(s) cards with contacts — Part 5: Numbering system and registration procedure for application identifiers*
- ISO/IEC 7816-5:1994/Amd.1:1996, *Identification cards — Integrated circuit(s) cards with contacts — Part 5: Numbering system and registration procedure for application identifiers — Amendment 1*
- ISO/IEC 7816-6:1996, *Identification cards — Integrated circuit(s) cards with contacts — Part 6: Interindustry data elements*
- ISO/IEC 7816-6:1996/Cor.1:1998, *Identification cards — Integrated circuit(s) cards with contacts — Part 6: Interindustry data elements — Technical corrigendum 1*
- ISO/IEC 7816-6:1996/Amd.1:2000, *Identification cards — Integrated circuit(s) cards with contacts — Part 6: Interindustry data elements — Amendment 1: IC manufacturer registration*
- ISO/IEC 7816-8:1999, *Identification cards — Integrated circuit(s) cards with contacts — Part 8: Security-related interindustry commands*
- ISO/IEC 7816-9:2000, *Identification cards — Integrated circuit(s) cards with contacts — Part 9: Additional interindustry commands and security attributes*

ISO/IEC 7816 consists of the following parts, under the general title *Identification cards — Integrated circuit cards*:

- *Part 1: Cards with contacts — Physical characteristics*
- *Part 2: Cards with contacts — Dimensions and location of the contacts*
- *Part 3: Cards with contacts — Electrical interface and transmission protocols*
- *Part 4: Organization, security and commands for interchange*
- *Part 5: Registration of application providers*
- *Part 6: Interindustry data elements for interchange*
- *Part 7: Interindustry Commands for Structured Card Query Language (SCQL)*
- *Part 8: Commands for security operations*
- *Part 9: Commands for card management*
- *Part 10: Cards with contacts — Electrical interface for synchronous cards*
- *Part 11: Personal verification through biometric methods*
- *Part 15: Cryptographic information application*

## Introduction

ISO/IEC 7816 is a series of standards specifying integrated circuit cards and the use of such cards for interchange. These cards are identification cards intended for information exchange negotiated between the outside world and the integrated circuit in the card. As a result of an information exchange, the card delivers information (computation result, stored data), and / or modifies its content (data storage, event memorization).

- Five parts are specific to cards with galvanic contacts and three of them specify electrical interfaces.
  - ISO/IEC 7816-1 specifies physical characteristics for cards with contacts.
  - ISO/IEC 7816-2 specifies dimensions and location of the contacts.
    - ISO/IEC 7816-3 specifies electrical interface and transmission protocols for asynchronous cards.
    - ISO/IEC 7816-10 specifies electrical interface and answer to reset for synchronous cards.
    - ISO/IEC 7816-12 specifies electrical interface and operating procedures for USB cards.
- All the other parts are independent from the physical interface technology. They apply to cards accessed by contacts and / or by radio frequency.
  - ISO/IEC 7816-4 specifies organization, security and commands for interchange.
  - ISO/IEC 7816-5 specifies registration of application providers.
  - ISO/IEC 7816-6 specifies interindustry data elements for interchange.
  - ISO/IEC 7816-7 specifies commands for structured card query language.
  - ISO/IEC 7816-8 specifies commands for security operations.
  - ISO/IEC 7816-9 specifies commands for card management.
  - ISO/IEC 7816-11 specifies personal verification through biometric methods.
  - ISO/IEC 7816-15 specifies cryptographic information application.

ISO/IEC 10536<sup>[14]</sup> specifies access by close coupling. ISO/IEC 14443<sup>[15]</sup> and ISO/IEC 15693<sup>[18]</sup> specify access by radio frequency. Such cards are also known as contactless cards.

# Identification cards — Integrated circuit cards —

## Part 6: Interindustry data elements for interchange

### 1 Scope

This document specifies, directly or by reference, data elements, including composite data elements, that may be used in interindustry interchange.

It identifies the following characteristics of each data element:

- identifier;
- name;
- description and reference;
- format and coding (if not available in other ISO International Standards or parts of ISO/IEC 7816).

The layout of each data element is described as seen at the interface between the interface device and the card.

This document provides the definition of data elements without consideration of any restrictions on the usage of the data elements.

It does not cover the internal implementation within the card and/or the outside world.

### 2 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 7816 (all parts), *Identification cards — Integrated circuit cards*

### 3 Terms and definitions

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

#### 3.1

##### **data element**

item of information seen at the interface for which are defined a name, a description of logical content, a format and a coding  
[ISO/IEC 7816-4]

#### 3.2

##### **data object**

information seen at the interface consisting of the concatenation of a mandatory tag field, a mandatory length field and a conditional value field  
[ISO/IEC 7816-4]