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# **Cards and security devices for personal identification — Contactless proximity objects —**

## **Part 4: Transmission protocol**

*Cartes et dispositifs de sécurité pour l'identification personnelle —  
Objets sans contact de proximité —*

*Partie 4: Protocole de transmission*



Reference number  
ISO/IEC 14443-4:2018(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](http://www.iso.org/directives)).

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This document was prepared by ISO/IEC JTC 1, *Information technology, SC 17, Cards and security devices for personal identification*.

This fourth edition cancels and replaces the third edition (ISO/IEC 14443-4:2016), which has been technically revised.

A list of all the parts in the ISO/IEC 14443 series can be found on the ISO website.

## **Introduction**

The ISO/IEC 14443 series of standards describes the parameters for identification cards or objects for international interchange.

The protocol, as defined in this document, is capable of transferring the application protocol data units as defined in ISO/IEC 7816-4. Thus, application protocol data units and application selection may be used as defined in ISO/IEC 7816-4.

The ISO/IEC 14443 series of standards is intended to allow operation of proximity cards in the presence of other contactless cards or objects conforming to the ISO/IEC 10536 series of standards and the ISO/IEC 15693 series of standards and near field communication (NFC) devices conforming to ISO/IEC 18092 and ISO/IEC 21481.