## INTERNATIONAL STANDARD

ISO/IEC 29192-2

Second edition 2019-11

# Information security — Lightweight cryptography —

Part 2: **Block ciphers** 

Sécurité de l'information — Cryptographie pour environnements contraints —

Partie 2: Chiffrements par blocs





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#### Foreword

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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).

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For an explanation of the voluntary nature of standards, 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 <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *Information security, cybersecurity and privacy protection*.

This second edition cancels and replaces the first edition (ISO/IEC 29192-2:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the LEA algorithm has been added to 6.3;
- numerical examples and feature tables of LEA have been added to B.3 and Annex C.

A list of all parts in the ISO/IEC 29192 series can be found on the ISO website.

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## Introduction

ISO/IEC 29192-1 specifies the requirements for lightweight cryptography.

A block cipher maps blocks of *n* bits to blocks of *n* bits, under the control of a key of *k* bits.

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## Information security — Lightweight cryptography —

## Part 2:

## **Block ciphers**

## 1 Scope

This document specifies three block ciphers suitable for applications requiring lightweight cryptographic implementations:

- PRESENT: a lightweight block cipher with a block size of 64 bits and a key size of 80 or 128 bits;
- CLEFIA: a lightweight block cipher with a block size of 128 bits and a key size of 128, 192 or 256 bits;
- LEA: a lightweight block cipher with a block size of 128 bits and a key size of 128, 192 or 256 bits.

#### 2 Normative references

There are no normative references in this document.