International Standard

ISO 11784

Radio frequency identification of animals — Code structure

Identification des animaux par radiofréquence — Structure du code

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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.

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 ISO 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 19, *Agricultural electronics*.

This third edition cancels and replaces the second edition (ISO 11784:1996), which have been technically revised. It also incorporates the Amendments ISO 11784:1996/Amd. 1:2004 and ISO 11784:1996/Amd. 2:2010.

The main changes are as follows:

— references to ISO 24631-1 has been included to specify the granting and the use of the manufacturer's numbers;

— the following new annexes have been added:

  — Conditions for using ISO 11784 coding (Annex A);

  — Conditions of use of transponder registration (Annex B);

  — Conditions of use of manufacturer codes (Annex C);

  — Steps RA shall take if rules as defined in this document are disrespected (Annex D);

— information related to the Registration Authority for (shared) manufacturer codes has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document specifies the structure of the radio-frequency (RF) identification code for animals. RF identification of animals requires that the bits transmitted by a transponder are interpretable by a transceiver.

Usually, the bit stream contains data bits, defining the identification code and a number of bits to ensure correct reception of the data bits. This document specifies the structure of the identification code.

The transmission protocols between transponder and transceiver are the subject of ISO 11785[1].

This document does not specify the characteristics for advanced transponders. These characteristics are the subject of the ISO 14223 series[2],[3],[4].

This document does not specify the characteristics of the injection sites for injectable transponders. These characteristics are the subject of ISO 15639[5],[6].

This document does not specify the characteristics of the evaluation protocols (including granting and use of a manufacturer code). These characteristics are the subject of the ISO 24631 series[7],[8].

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Radio frequency identification of animals — Code structure

1 Scope

This document specifies the structure of the radio-frequency (RF) identification code for animals.

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 (all parts), *Codes for the representation of names of countries and their subdivisions*

ISO 24631-1, *Radiofrequency identification of animals — Part 1: Evaluation of conformance of RFID transponders with ISO 11784 and ISO 11785 (including granting and use of a manufacturer code)*

3 Terms and definitions

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

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

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

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

3.1
animal code
bit pattern to identify an animal

3.2
bit pattern
sequence of binary digits or bits (0, 1)

3.3
code field
group of bits in the identification code with a specific meaning

3.4
country code
CC
bit pattern to identify the country where the transponder code was issued

3.5
data block
additional group of bits with a specific meaning

3.6
flag
single bit with a specific meaning

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