

This is a preview of "ISO 18185-1:2007". [Click here to purchase the full version from the ANSI store.](#)

First edition  
2007-05-01

---

---

## **Freight containers — Electronic seals — Part 1: Communication protocol**

*Conteneurs pour le transport de marchandises — Scellés  
électroniques —*

*Partie 1: Protocole de communication*



Reference number  
ISO 18185-1:2007(E)

© ISO 2007

This is a preview of "ISO 18185-1:2007". [Click here to purchase the full version from the ANSI store.](#)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**DOCUMENT PROTÉGÉ PAR COPYRIGHT**

© ISO 2007

Droits de reproduction réservés. Sauf prescription différente, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'ISO à l'adresse ci-après ou du comité membre de l'ISO dans le pays du demandeur.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax. + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Publié en Suisse

This is a preview of "ISO 18185-1:2007". Click [here](#) to purchase the full version from the ANSI store.

## Contents

Page

Foreword.....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions.....	2
4 Common requirements.....	2
5 Seal data .....	3
6 Data link layer protocol for electronic seal .....	4
6.1 433 MHz long range data link layer protocol for type A systems .....	5
6.2 SRL data link layer definition for type A systems .....	18
6.3 2,4 GHz LRL layer data protocol for type B systems .....	19
6.4 SRL data link layer definition for type B systems .....	22
Bibliography .....	23

## 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.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

ISO 18185-1 was prepared by Technical Committee ISO/TC 104, *Freight containers*, Subcommittee SC 4, *Identification and communication*.

ISO 18185 consists of the following parts, under the general title *Freight containers — Electronic seals*:

- *Part 1: Communication protocol*
- *Part 2: Application requirements*
- *Part 3: Environmental characteristics*
- *Part 4: Data protection*
- *Part 5: Physical layer*

This is a preview of "ISO 18185-1:2007". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

The communication protocol for an electronic seal for freight containers has been developed by the committee to provide for the data link requirements related to the unambiguous interrogation and maintenance of the integrity of a freight container seal from point of sealing to point of opening.