



BSI Standards Publication

## Home and Building Electronic Systems (HBES)

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Part 3-4: Secure Application Layer, Secure Service,  
Secure configuration and security Resources

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## National foreword

This British Standard is the UK implementation of EN 50090-3-4:2017, incorporating corrigendum May 2018.

The UK participation in its preparation was entrusted to Technical Committee IST/6-/12, Home Electronic Systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2018  
Published by BSI Standards Limited 2018

ISBN 978 0 539 01073 2

ICS 97.120

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2017.

### Amendments/corrigenda issued since publication

Date	Text affected
30 June 2018	Implementation of CENELEC corrigendum May 2018: Figures 12 and 13 and Tables 2 and 3 inserted

EUROPEAN STANDARD

**EN 50090-3-4**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 97.120

English Version

## Home and Building Electronic Systems (HBES) - Part 3-4: Secure Application Layer, Secure Service, Secure configuration and security Resources

Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) - Partie 3-4 : Spécification des KNX S AL, Service sécurisé, configuration sécurisée et Ressources en matière de sécurité

Elektrische Systemtechnik für Heim und Gebäude (ESHG) - Teil 3-4: Informationssicherheit auf Anwendungsschicht, Dienste, Konfiguration und Ressourcen

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (EN 50090-3-4:2017) has been prepared by CLC/TC 205 "Home and Building Electronic Systems (HBES)".

The following dates are fixed:

- latest date by which this document has to be (dop) 2018-06-12 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2020-06-12 with this document have to be withdrawn

EN 50090-3 is composed with the following parts:

- EN 50090-3-1, *Home and Building Electronic Systems (HBES) — Part 3-1: Aspects of application — Introduction to the application structure*;
- EN 50090-3-2, *Home and Building Electronic Systems (HBES) — Part 3-2: Aspects of application — User process for HBES Class 1*;
- EN 50090-3-3, *Home and Building Electronic Systems (HBES) — Part 3-3: Aspects of application — HBES Interworking model and common HBES data types*;
- EN 50090-3-4, *Home and Building Electronic Systems (HBES) — Part 3-4: Secure Application Layer, Secure Service, Secure configuration and security Resources*.

## **Introduction**

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## 1 Scope

This European Standard defines security for Home and Building HBES Open Communication System. It is based on ISO/IEC 24767-2, Home network security / Secure Communication Protocol Middleware (SCPM).

Having a secure HBES solution has several advantages.

- It makes the HBES RF Communication Medium more secure:

HBES RF Radio Frames in plain communication can easily be traced (by sniffer for example).

- It allows for secure applications.

Secure communication is interesting in shutter – and door control and anti-intrusion security, in order to prevent intrusive commands (burglars...).

It is also interesting in metering to protect for example electrical consumption data.

This document does not define any type of application.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50090-1:2011, *Home and Building Electronic Systems (HBES) - Part 1: Standardization structure*

EN 50090-3-2, *Home and Building Electronic Systems (HBES) - Part 3-2: Aspects of application - User process for HBES Class 1*

EN 50090-4-1, *Home and Building Electronic Systems (HBES) - Part 4-1: Media independent layers - Application layer for HBES Class 1*

EN 50090-4-2, *Home and Building Electronic Systems (HBES) - Part 4-2: Media independent layers - Transport layer, network layer and general parts of data link layer for HBES Class 1*

## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50090-1:2011 and the following apply.

#### 3.1.1

##### **Access Control**

definition and evaluation of which communication partner has the right to access which data or call which services, which is solved by collecting communication partners with the same rights for all data and services in Roles and defining for each Role and for each piece of data or service the Permissions that this Role has

#### 3.1.2

##### **Security Black List**

standard list of services or DPs that shall exclusively be accepted using HBES Secure communication using confidentiality