Open Data Communication in Building Automation, Controls andBuilding Management Implementation Guideline - ControlNetwork Protocol - Part 5: Implementation

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14908-5:2009 sisaldab Euroopa standardi EN 14908-5:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 14908-5:2009 consists of the English text of the European standard EN 14908-5:2009.
Standard on kinnitatud Eesti Standardikeskuse 30.06.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.06.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 29.04.2009.	Date of Availability of the European standard text 29.04.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 35.240.99, 91.140.01

Võtmesõnad:

EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN 14908-5

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English Version

Open Data Communication in Building Automation, Controls and Building Management Implementation Guideline - Control Network Protocol - Part 5: Implementation

Réseau ouvert de communication de données pour l'automatisation, la régulation et la gestion technique du bâtiment - Protocole de réseau pour le bâtiment - Partie 5 : Implémentation

Firmenneutrale Datenkommunikation für die Gebäudeautomation und Gebäudemanagement - Gebäude Netzwerk Protokoll - Teil 5: Implementierung

This European Standard was approved by CEN on 1 September 2007.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 14908-5:2009) has been prepared by Technical Committee CEN/TC 247 “Building automation and controls and building management”, the secretariat of which is held by SNV.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by October 2009.

This standard is part of a series of standards for open data transmission in building automation, control and in building management systems. The content of this standard covers the data communications used for management, automation/control and field functions.

The EN 14908-5 is part of a series of European Standards under the title, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol (CNP)*, which comprises the following parts:

Part 1: *Protocol Stack*

Part 2: *Twisted Pair Communication*

Part 3: *Power Line Channel Specification*

Part 4: *IP Communication*

Part 5*: Implementation*

Part 6*: Application elements*

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This document specifies the Layered Implementation Guidelines (LIG) for the Control Network Protocol (CNP) Specification: EN 14908-1:2005. The CNP specification model is based on the ISO Open Systems Interconnection Reference Model. There are also important extensions to the 7-layer OSI Reference Model. Figure 1 shows the scope of this specification in reference to the CNP and companion specifications for handling various data-transport media at the lower ISO protocol layers. A dashed line is used to show that the scope of this document is not treated as redundant, compared with other specifications covering their respective layers but as a complement to those specifications in implementing them in an interoperable fashion.

In this document, the guidelines for implementing a device based on CNP are specified to increase the ability for devices to interoperate regardless of the installer or manufacturer of the devices. Anything outside this boundary is covered in other parts of the standard. Similar specifications exist for CNP data-transport media.

This standard has been prepared to provide mechanisms through which various vendors of building automation, control, and of building-management systems, may exchange information in a standardised way. It defines communication and internal-documentation requirements.

This standard is contributing to the general European policy for energy savings particularly in the field of the “Energy Performance of Building Directive” and the Construction Products Directive (ER No. 6 “Energy Economy and Heat Retention”).

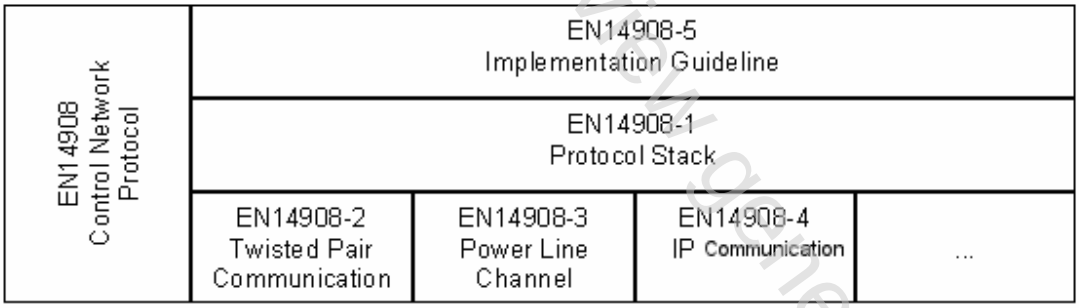

Figure 1 — Scope of this specification

1 Scope

This specification provides mechanisms through which various vendors of networked control systems in commercial building automation, control, and building management may exchange information in a standardised way.

This specification contains all the information necessary to facilitate the exchange of data and control information in an interoperable fashion using EN 14908-1 and its associated data-transport media specifications.

This specification establishes a minimal set of rules for compliance. It does not rule-out extended services to be provided, given that the rules are adhered-to within the system. It is the intention of the standard to permit extended services to coexist and defines the bounds in which those services function, including the format for internal device-documentation of those services. Services outside purvey of this specification so long as they are adherents of the system are permitted but will not necessarily be interoperable with any other devices and shall not be essential for the functioning of the device.

Certain aspects of this standard are defined in other documents. These documents are referenced where relevant. In the case where a referenced standard conflicts with this document, this document will prevail.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 14908-1:2005 *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 1: Protocol Stack*

prEN 14908-6*, Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 6: Application elements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14908-1:2005 and the following apply.

3.1
application set
function block or function blocks to which a configuration property applies

EXAMPLE A network variable, a series or compilation of network variables, a functional block, a series or compilation of functional blocks, or the entire device.

3.2
base type
fundamental type that can be used as the basis of a network-variable type or configuration-property type

NOTE The available base types are defined in 5.1.2.2.