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

EESTI STANDARDI EESSÕNA

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**Open Data Communication in Building Automation, Controls and
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Application elements**

Réseau ouvert de communication de données pour
l'automatisation, la régulation et la gestion technique du
bâtiment - Protocole de réseau pour le bâtiment - Partie 6 :
Éléments d'application

Firmeneutrale Datenkommunikation für die
Gebäudeautomation und Gebäudemanagement - Gebäude
Netzwerk Protokoll - Teil 6: Anwendungselemente

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 14908-6:2010) has been prepared by Technical Committee CEN/TC 247 "Building Automation, 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of an identical text or by endorsement, at the latest by April 2011, and conflicting national standards shall be withdrawn at the latest by April 2011.

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.

This European Standard is part of the EN 14908 series, which consists of the following parts:

- EN 14908-1, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 1: Protocol Stack*
- EN 14908-2, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 2: Twisted Pair Communication*
- EN 14908-3, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 3: Power Line Channel Specification*
- EN 14908-4, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 4: IP Communication*
- EN 14908-5, *Open Data Communication in Building Automation, Controls and Building Management Implementation Guideline — Control Network Protocol — Part 5: Implementation*
- EN 14908-6, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 6: Application Elements*

The content of this European Standard covers the data communications used for management, automation/control and field functions.

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, Croatia, 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 European Standard is used by all involved in design, manufacture, engineering, installation and commissioning activities.

This document specifies the definition of various types of data-transfer containers for carrying temperature, pressure, state, and other forms of data over the protocol defined by EN 14908-1 from any number of devices to any other number of devices, as defined by the limits in EN 14908-1. This document also specifies the data types for configuration information, used to define timing, default values, and other data. This document also specifies a data-file transfer method that may be used for transferring configuration information to and from devices. This document also specifies the device-interface format that describes the interconnection points of a device.

NOTE The file-transfer mechanism is not exclusively for loading configuration information into a device and therefore it can be used for other purposes in addition.

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").

1 Scope

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

This document provides specifications for the Application Elements of Control Network Protocol packets as follows:

- definitions of standardized packet (network-variable) data types;
- definitions of device-interface files;
- definitions of standardized configuration-property types;
- definitions of standardized enumeration types;
- definitions of standardized functional profiles;
- definition of the standardized method of file transfer between devices.

The purpose of this specification is to insure interoperability between various CNP implementations. This document contains all the information necessary to read and interpret the format of data and control information that is used by EN 14908-5. It also defines the device interface for a device as specified, which is necessary to exchange data between various devices from different manufacturers.

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 — Building Network Protocol — Part 1: Protocol Stack*

EN 14908-2, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 2: Twisted Pair Communication*

EN 14908-3, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 3: Power Line Channel Specification*

EN 14908-4, *Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol — Part 4: IP Communication*

EN 14908-5, *Open Data Communication in Building Automation, Controls and Building Management Implementation Guideline — Control Network Protocol — Part 5: Implementation*

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

functional block or functional blocks to which a configuration property applies