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BUILDING AUTOMATION AND CONTROL

SYSTEMS (BACS) - PART 2:

HARDWARE (ISO 16484-2:2004)

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**Building automation and control systems (BACS) - Part 2:
Hardware (ISO 16484-2:2004)**

Systèmes de gestion technique du bâtiment - Partie 2 :
Équipement (ISO 16484-2:2004)

Systeme der Gebäudeautomation (GA) - Teil 2: Hardware
(ISO 16484-2:2004)

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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 Central Secretariat has the same status as the official versions.

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Foreword

This document (EN ISO 16484-2:2004) has been prepared by CEN /TC 247, "Building Automation, Controls and Building Management", the secretariat of which is held by the SNV, in collaboration with ISO/TC 205 "Building Environment Design".

This document has to be implemented at national level, either by publication of an identical text or by endorsement, by February 2005, and conflicting national standards have to be withdrawn by February 2005.

The EN ISO 16484-2 is part of the EN ISO 16484 series of International Standards under the general title *Building Automation and Control Systems (BACS)*, which will comprise the following parts:

Part 1: *Overview and Vocabulary*

Part 2: *Hardware*

Part 3: *Functions*

Part 4: *Applications*

Part 5: *Data communication - Protocol*

Part 6: *Data communication - Conformance testing*

Part 7: *Project specification and implementation*

In this standard, Annex A: *General safety requirements and environmental conditions* and the Bibliography are both informative.

The Annex ZA *Normative references to international publications with the corresponding European publications*, is normative.

NOTE National annexes may contain information provided for easier implementation, e.g. an alphabetical index or national footnotes.

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

EN ISO 16484-2:2004 (E)

Introduction

This series of standards is intended for design of new buildings and retrofit of existing buildings for an acceptable indoor environment, practical energy conservation and efficiency.

The application of this series of standards for BACS is envisaged as follows:

- the environmental design for all building types requires complex methods for automation and control. The functional integration of services other than HVAC e.g. lighting and electric power distribution control, security control, transportation, maintenance management or facilities management is a general task for all parties employed to develop an integrated multi-application system. This integration allows the user to take advantage of synergies between the different applications. This standard will give guidance to architects, consultants and contractors as well as to users on how to share such resources,

- the innovation cycles between devices, systems and networks vary. To make it possible to add and to change existing devices, and extend the building automation and control network, several interfaces both proprietary and standardized are defined between the BACS network and the other systems. A manufacturer can design a product, both to meet his specific marketing objectives and to give the option to integrate that special device into a multi-application BACS. Interfaces are also defined in appropriate parts of this standard along with the necessary communications protocol and conformance test required to support the inter-working of devices,

- a manufacturer, a systems house, or an electrical or mechanical contractor can assemble an implementation of a building automation and control system,

- the application of this standard is not to standardize the hardware and software design or the architecture of a System, but to define the process for the creation of project specifications, where functionality and the quality of the solution are clearly defined.

The purpose of this series of standards is intended for use by those involved in the design, manufacture, engineering, installation, commissioning, operational maintenance and training of BACS when contracted, i.e.:

- as a guide to the terminology of the building automation and control trade. Unambiguous terminology is required for a complete and accurate conveyance of the intent and details of this standard;
- in product development, to avoid unnecessary duplication of function or terminology, but should not place a restraint on the evolution of new products, systems or applications;
- as a basis for interfacing products and systems. In order to interoperate, the elements of a BACS require a unified data communication protocol and information model;
- as a basis for drawing up a project specification for the procurement of building automation and control products for systems suppliers and customers;
- as a code of practice for expertly commissioning prior to handover of a system;
- by educational establishments wishing to train people in the field of building automation and control systems.

This entire series of BACS standards consists of the following contents:

Part 1: Overview and definitions (in preparation)

Part 1 of this standard describes the objectives and interrelationships of all parts of this standard. It provides an overview and detailed information about the structure of the related series of standards for the BACS industry. This part of the standard provides also the vocabulary with terms and definitions for the understanding of the entire series of this standard and it contains a translation of the main terms in English, French, Russian, and German in an informative annex.

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