



# SLOVENSKI STANDARD SIST EN ISO 16484-5:2014

01-julij-2014

Nadomešča:  
SIST EN ISO 16484-5:2013

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**Avtomatizacija stavb in sistemi za regulacijo - 5. del: Protokol izmenjave podatkov  
(ISO 16484-5:2014)**

Building automation and control systems (BACS) - Part 5: Data communication protocol  
(ISO 16484-5:2014)

Systeme der Gebäudeautomation - Teil 5: Datenkommunikationsprotokoll (ISO 16484-  
5:2014)

Systèmes d'automatisation et de gestion technique du bâtiment - Partie 5: Protocole de  
communication de données (ISO 16484-5:2014)

**Ta slovenski standard je istoveten z: EN ISO 16484-5:2014**

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**ICS:**

|           |  |                                      |
|-----------|--|--------------------------------------|
| 35.240.99 | Uporabniške rešitve IT na drugih področjih | IT applications in other fields      |
| 97.120    | Avtomatske krmilne naprave za dom          | Automatic controls for household use |

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 16484-5**

May 2014

ICS 91.140.01; 35.240.99

Supersedes EN ISO 16484-5:2012

English Version

## Building automation and control systems (BACS) - Part 5: Data communication protocol (ISO 16484-5:2014)

Systèmes d'automatisation et de gestion technique du bâtiment - Partie 5: Protocole de communication de données (ISO 16484-5:2014)

Systeme der Gebäudeautomation - Teil 5: Datenkommunikationsprotokoll (ISO 16484-5:2014)

This European Standard was approved by CEN on 6 April 2014.

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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-CENELEC Management Centre has the same status as the official versions.

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## Foreword

This document (EN ISO 16484-5:2014) has been prepared by Technical Committee ISO/TC 205 "Building environment design" in collaboration with 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 November 2014, and conflicting national standards shall be withdrawn at the latest by November 2014.

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 document supersedes EN ISO 16484-5:2012.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 16484-5:2014 has been approved by CEN as EN ISO 16484-5:2014 without any modification.

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INTERNATIONAL  
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16484-5

Fifth edition  
2014-05-15

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**Building automation and control systems  
(BACS) —**

Part 5:  
**Data communication protocol**

*Systèmes d'automatisation et de gestion technique du bâtiment —  
Partie 5: Protocole de communication de données*

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## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. [www.iso.org/directives](http://www.iso.org/directives)

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. [www.iso.org/patents](http://www.iso.org/patents)

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.htm](http://www.iso.org/iso/foreword.htm)

The committee responsible for this document is ISO/TC 205, *Building environment design*.

This fifth edition cancels and replaces the fourth edition (ISO 16484-5:2012), of which it forms the subject of a minor revision.

ISO 16484 consists of the following parts, under the general title *Building automation and control systems (BACS) — Data communication conformance testing*:

- *Part 1: Project specification and implementation*
- *Part 2: Hardware*
- *Part 3: Functions*
- *Part 5: Data communication protocol*
- *Part 6: Data communication conformance testing*

Applications and project implementation are to form the subjects of future Parts 4 and 7.

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# Building automation and control systems (BACS) — Part 5: Data communication protocol

## 1 Scope

This part of ISO 16484 defines data communication services and protocols for computer equipment used for monitoring and control of heating, ventilation, air-conditioning and refrigeration (HVAC&R) and other building systems. It defines, in addition, an abstract, object-oriented representation of information communicated between such equipment, thereby facilitating the application and use of digital control technology in buildings. The scope and field of application are furthermore detailed in Clause 2 of the enclosed ANSI/ASHRAE publication.

## 2 Requirements

Requirements are the technical recommendations made in the following publication (reproduced on the following pages), which is adopted as an International Standard:

ANSI/ASHRAE 135-2012, *A Data Communication Protocol for Building Automation and Control Networks*

The text on the back of the title page of the ANSI/ASHRAE standard and the policy statement on the last page are not relevant for the purposes of international standardization.

The following International Standards are cited in the text:

<https://standards.iteh.ai/catalog/standards/sist/dd2af8b8-4855-4868-8d18-100000000000/iso-7498-1>

ISO/IEC 7498 (all parts), *Information technology — Open Systems Interconnection — Basic Reference Model*

ISO/TR 8509, *Information processing systems — Open Systems Interconnection — Service conventions*

ISO/IEC 8649, *Information technology — Open Systems Interconnection — Service definition for the Association Control Service Element*

ISO/IEC 8802-2, *Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements — Part 2: Logical link control*

ISO/IEC 8802-3, *Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements — Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications*

ISO/IEC 8822, *Information technology — Open Systems Interconnection — Presentation service definition*

ISO/IEC 8824 (all parts), *Information technology — Abstract Syntax Notation One (ASN.1)*

ISO/IEC 8825 (all parts), *Information technology — ASN.1 encoding rules*

ISO/IEC 8859-1, *Information technology — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1*

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ISO/IEC 9545, *Information technology — Open Systems Interconnection — Application Layer structure*

ISO/IEC 10646, *Information technology — Universal Multiple-Octet Coded Character Set (UCS)*

**3 Revision of ANSI/ASHRAE 135**

It has been agreed with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) that Technical Committee ISO/TC 205 will be consulted in the event of any revision or amendment of ANSI/ASHRAE 135. To this end, ANSI will act as a liaison body between ASHRAE and ISO.

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# STANDARD

**ANSI/ASHRAE Standard 135-2012**  
(Supersedes ANSI/ASHRAE Standard 135-2010)



# A Data Communication Protocol for Building Automation and Control Networks

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See the History of Revisions at the end of this standard for approval dates by the ASHRAE Standards Committee, the ASHRAE Board of Directors, and the American National Standards Institute.

This standard is under continuous maintenance by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website ([www.ashrae.org](http://www.ashrae.org)) or in paper form from the Manager of Standards. The latest edition of an ASHRAE Standard may be purchased from the ASHRAE website ([www.ashrae.org](http://www.ashrae.org)) or from ASHRAE Customer Service, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: [orders@ashrae.org](mailto:orders@ashrae.org). Fax: 404-321-5478. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to [www.ashrae.org/permissions](http://www.ashrae.org/permissions).

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