SLOVENSKI STANDARD
SIST EN 50090-4-4:2025

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Stanovanjski in stavbni elektronski sistemi (HBES) - 4-4. del: HBES IoT Point API

Home and Building Electronic Systems (HBES) - Part 4-4: HBES IoT Point API

Elektrische Systemtechnik für Heim und Gebäude (ESHG) - Teil 4-4: ESHG IoT Point API

Systèmes électroniques pour les foyers domestiques et les bâtiments (HBES) - Partie 4-4: API de Point IdO HBES

Ta slovenski standard je istoveten z: **EN 50090-4-4:2025**

ICS:

35.240.67	Uporabniške rešitve IT v gradbeništvu	IT applications in building and construction industry
97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

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Home and Building Electronic Systems (HBES) - Part 4-4: HBES IoT Point API

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European foreword

This document (EN 50090-4-4:2025) 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 implemented at national level by publication of an identical national standard or by endorsement	(dop)	2026-05-31
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2028-05-31

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1 Scope

This document lays down the requirements for the HBES Point API extension to the EN 50090 series, allowing vendor independent communication between smart home and building devices on IPv6 networks.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 50090-1:2011, *Home and Building Electronic Systems (HBES) - Part 1: Standardization structure*

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 50090-4-1, *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*

EN 50090-7-1, *Home and Building Electronic Systems (HBES) - Part 7-1: System management - Management procedures*

EN ISO 22510, *Open data communication in building automation, controls and building management - Home and building electronic systems - KNXnet/IP communication (ISO 22510:2019)*

RFC 7252, *The Constrained Application Protocol (CoAP)*

RFC 8949, *Concise Binary Object Representation (CBOR)*

RFC 6838, *Media Type Specifications and Registration Procedures*

RFC 6690, *Constrained RESTful Environments (CoRE) Link Fomat*

RFC 1035, *Domain names – Implementation and specification*

RFC 8323, *CoAP (Constrained Application Protocol) over TCP, TLS, and WebSockets*

RFC 4291, *IP Version 6 Addressing Architecture*

RFC 6763, *DNS-Based Service Discovery*

RFC 8766, *Discovery Proxy for Multicast DNS-Based Service Discovery*

RFC 6762, *Muticast DNS*

RFC 3596, *DNS Extensions to Support IP Version 6*

RFC 8613, *Object Security for Constrained RESTful Environments (OSCORE)*

RFC 7959, *Block-Wise Transfers in the Constrained Application Protocol (CoAP)*

RFC 9175, *Constrained Application Protocol (CoAP): Echo, Request-Tag, and Token Processing*

RFC 8516, *“Too Many Requests” Response Code for the Constrained Application Protocol*

RFC 3306, *Unicast-Prefix-based IPv6 Multicast Addresses*

RFC 3307, *Allocation Guidelines for IPv6 Multicast Addresses*

RFC 6282, *Compression Format for IPv6 Datagrams over IEEE 802.15.4-Based Networks*

RFC 9148, *EST-coaps: Enrollment over Secure Transport with the Secure Constrained Applicatoin Protocol*

RFC 8995, *Bootstrapping Remote Secure Key Infrastructure (BRSKI)*

RFC 5967, *The application/pkcs10 Media Type*

RFC 5273, *Certificate Management over CMS (CMC): Transport Protocols*

RFC 5280, *Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile*

RFC 2818, *HTTP Over TLS*

RFC 7251, *AES-CCM Elliptic Curve Cryptography (ECC) Cipher Suites for TLS*

RFC 8392, *CBOR Web Token (CWT)*

RFC 3986, *Uniform Resource Identifier (URI): Generic Syntax*

RFC 8747, *Proof-of-Possession Key Semantics for CBOR Web Tokens (CWTs)*

RFC 8152, *CBOR Object Signing and Encryption (COSE)*

RFC 3339, *Date and Time on the Internet: Timestamps*

RFC 6335, *Internet Assigned Numbers Authority (IANA) Procedures for the Managmenet of the Service Name and Transport Protocol Port Number Registry*

RFC 4492, *Elliptic Curve Cryptography (ECC) Cipher Suites for Transport Layer Security (TLS)*

RFC 5869, *HMAC-based Extract-and-Expand Key Derivation Function (HKDF)*

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.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1.1
Actuator
Point performing an actuation in HBES IoT (executed by a specific procedure, with an expected result) that changes an Installation state during Runtime