

Devices and intergration in enterprise systems -
Function blocks (FB) for process control and electronic
device description language (EDDL) - Part 5: EDDL
Builtin library

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Devices and intergration in enterprise systems - Function blocks
(FB) for process control and electronic device description
language (EDDL) - Part 5: EDDL Built-in library
(IEC 61804-5:2020)**

Les dispositifs et leur intégration dans les systèmes de
l'entreprise - Blocs fonctionnels (FB) pour les procédés
industriels et le langage de description électronique de
produit (EDDL) - Partie 5: Bibliothèque de Built-in EDDL
(IEC 61804-5:2020)

Funktionsbausteine für die Prozessautomation und
elektronische Gerätebeschreibungssprache - Teil 5:
Bibliothek vorgefertigter Unterprogramme
(IEC 61804-5:2020)

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European foreword

The text of document 65E/634/CDV, future edition 2 of IEC 61804-5, prepared by SC 65E "Devices and integration in enterprise systems" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61804-5:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-04-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-07-29

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61804-3	2020	Devices and integration in enterprise systems - Function blocks (FB) for process control and electronic device description language (EDDL) - Part 3: EDDL syntax and semantics	EN IEC 61804-3	2020
ISO/IEC 9899	-	Information technology - Programming languages - C	-	-
IEEE 754	-	IEEE Standard for Floating-Point Arithmetic	-	-

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Devices and integration in enterprise systems – Function blocks (FB) for
process control and electronic device description language (EDDL) –
Part 5: EDDL Builtin library**

**Les dispositifs et leur intégration dans les systèmes de l'entreprise – blocs
fonctionnels (FB) pour les procédés industriels et le langage de description
électronique de produit (EDDL) –
Partie 5: Bibliothèque de Builtin EDDL**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DEVICES AND INTEGRATION IN ENTERPRISE SYSTEMS – FUNCTION BLOCKS (FB) FOR PROCESS CONTROL AND ELECTRONIC DEVICE DESCRIPTION LANGUAGE (EDDL) –

Part 5: EDDL Builtin library

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This second edition cancels and replaces the first edition published in 2015. This edition constitutes a technical revision.

This edition was developed by merging material from multiple variants of existing EDDL specifications including those from FieldComm Group (Foundation™ Fieldbus¹, HART®²), PROFIBUS™³ Nutzerorganisation e.V. (PNO), and ISA100_Wireless™⁴ Compliance Institute (ISA100 WCI). As a result, the formatting and numbering of this edition may be different from any of the individual specifications from which this edition was derived.

This edition includes the following significant technical changes with respect to the previous edition:

- Communication profiles ISA100 and GPE were added.
- The following builtins have been deprecated:
 - ABORT_ON_NO_DEVICE
 - IGNORE_NO_DEVICE
 - RETRY_ON_NO_DEVICE
 - XMTR_ABORT_ON_NO_DEVICE
 - XMTR_IGNORE_NO_DEVICE
 - XMTR_RETRY_ON_NO_DEVICE
 - get_status_code_string

The text of this International Standard is based on the following documents:

CDV	Report on voting
65E/634/CDV	65E/691/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61804 series, published under the general title *Devices and integration in enterprise systems – Function blocks (FB) for process control and electronic device description language (EDDL)*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This part of IEC 61804

- contains a list of builtins that can be used inside of EDDL methods;
- defines the functionality and parameters for each builtin;
- describes how EDDL variables can be referenced from inside EDDL methods;

EDDL features are limited by profile for each of the communication technologies. The descriptions in this part of IEC 61804 refer to these features in a general sense and not all communication technologies will support all of the features described. The profile definitions in the overview of this part and in IEC 61804-3 are referred to in order to understand the features supported by each communication technology.