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Industriell processtyrning – Funktionsblock (FB) och EDDL – Del 4: EDD-tolkning

*Function blocks (FB) for process control and electronic device description language (EDDL) –
Part 4: EDD interpretation*

Som svensk standard gäller europastandarden EN 61804-4:2016. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61804-4:2016.

Nationellt förord

Europastandarden EN 61804-4:2016

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- **IEC 61804-4, First edition, 2015 - Function blocks (FB) for process control and electronic device description language (EDDL) - Part 4: EDD interpretation**

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English Version

**Function blocks (FB) for process control and Electronic Device
Description Language (EDDL) - Part 4: EDD interpretation
(IEC 61804-4:2015)**

Blocs fonctionnels (FB) pour les procédés industriels et le
langage de description électronique de produit (EDDL) -
Partie 4: Interprétation EDD
(IEC 61804-4:2015)

Funktionsbausteine für die Prozessautomation und
elektronische Gerätebeschreibungssprache - Teil 4:
Interpretation von Gerätebeschreibungen
(IEC 61804-4:2015)

This European Standard was approved by CENELEC on 2015-11-11. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 65E/465/FDIS, future edition 1 of IEC 61804-4, 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 61804-4:2016.

The following dates are fixed:

- latest date by which the document has to be (dop) 2016-08-11
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2018-11-11
standards conflicting with the
document have to be withdrawn

This document supersedes CLC/TR 61804-4:2007.

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The text of the International Standard IEC 61804-4:2015 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61784-1	-	Industrial communication networks - Profiles -- Part 1: Fieldbus profiles	EN 61784-1	-
IEC 61784-2	-	Industrial communication networks - Profiles - Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3	EN 61784-2	-
IEC 61804-2	-	Function Blocks (FB) for process control -- Part 2: Specification of FB concept	EN 61804-2	-
IEC 61804-3	-	Function blocks (FB) for process control and EDDL - Part 3: EDDL specification and communication profiles	EN 61804-3	-
IEC 61804-5	-	Function blocks (FB) for process control and EDDL - Part 5: EDDL Built-in library	EN 61804-5	-
ISO/IEC 10918	series	Information technology - Digital compression and coding of continuous-tone still images: JPEG File Interchange Format (JFIF)	-	series
ISO/IEC 15948	-	Information technology - Computer graphics and image processing - Portable Network Graphics (PNG) - Functional specification	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FUNCTION BLOCKS (FB) FOR PROCESS CONTROL AND
ELECTRONIC DEVICE DESCRIPTION LANGUAGE (EDDL) –****Part 4: EDD interpretation****FOREWORD**

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International Standard IEC 61804-4 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This first edition cancels and replaces IEC TR 61804-4 published in 2006. This edition constitutes a technical revision.

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

- New paragraph:
 - EDDL data description
 - EDDL METHOD programming and usage of builtins
 - Edit session
 - Offline and online configuration

- EDDL communication description
- Enhancements in paragraph EDDL user interface descriptions

The text of this standard is based on the following documents:

FDIS	Report on voting
65E/465/FDIS	65E/481/RVD

Full information on the voting for the approval of this 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 *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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This part of IEC 61804 was developed using material from FDI Cooperation LLC (Foundation™ Fieldbus¹, HART®² Communication Foundation (HCF), PROFIBUS™³ Nutzerorganisation e.V. (PNO)), OPC Foundation (OPCF) and FDT Group. IEC 61804 has the general title "Function blocks (FB) for process control and Electronic Device Description Language (EDDL)".

This edition does reflect many of the various rules defined by the different communication foundations, however it is not a complete representation of those rules defined by each of the communication foundations today. Therefore, an EDD application and EDD developer will need to rely on both IEC 61804-4 and the respective communication foundation documents (e.g. specifications, test requirements, test cases) to develop a conformant application that will meet foundation registration requirements.

Conformity assessment of an EDD application is the responsibility of the respective communication foundations. In cases of any ambiguity, the rules of the respective communication foundations apply.

This part of IEC 61804

- contains an overview of the use of EDDL;
- provides examples demonstrating the use of the EDDL constructs;
- shows how the use cases are fulfilled; and
- shows the proper EDD application interpretation for each example.

This part of IEC 61804 is not an EDDL tutorial and is not intended to replace the EDDL specification.

Instructions are provided for the EDD application, which describe what will be performed without prescribing the technology used in the host implementation. For example, the FILE construct describes data that is stored by the EDD application on behalf of the EDD. The FILE construct does not specify how the data is stored. The EDD application can use a database, a flat file, or any other implementation it chooses.

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FUNCTION BLOCKS (FB) FOR PROCESS CONTROL AND ELECTRONIC DEVICE DESCRIPTION LANGUAGE (EDDL) –

Part 4: EDD interpretation

1 Scope

This part of IEC 61804 specifies EDD interpretation for EDD applications and EDDs to support EDD interoperability. This document is intended to ensure that field device developers use the EDDL constructs consistently and that the EDD applications have the same interpretations of the EDD. It supplements the EDDL specification to promote EDDL application interoperability and improve EDD portability between EDDL applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61784-1, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*

IEC 61784-2, *Industrial communication networks – Profiles – Part 2: Additional fieldbus profiles for real-time networks based on ISO/IEC 8802-3*

IEC 61804-2, *Function blocks (FB) for process control – Part 2: Specification of FB concept*

IEC 61804-3⁴, *Function blocks (FB) for process control and Electronic device description language (EDDL) – Part 3: EDDL syntax and semantics*

IEC 61804-5⁵, *Function blocks (FB) for process control and Electronic device description language (EDDL) – Part 5: EDDL Builtin library*

ISO/IEC 10918 (all parts), *Information technology – Digital compression and coding of continuous-tone still images*

ISO/IEC 15948, *Information technology – Computer graphics and image processing – Portable Network Graphics (PNG): Functional specification*

⁴ To be published.

⁵ To be published.