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**Feldgeräteintegration (FDI) –
Teil 101-1: Profile –
Foundation Fieldbus H1
(IEC 62769-101-1:2015);
Englische Fassung EN 62769-101-1:2015**

Field Device Integration (FDI) –
Part 101-1: Profiles –
Foundation Fieldbus H1
(IEC 62769-101-1:2015);
English version EN 62769-101-1:2015

Intégration des appareils de terrain (FDI) –
Partie 101-1: Profils –
Foundation Fieldbus H1
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Anwendungsbeginn

Anwendungsbeginn für die von CENELEC am 2015-06-23 angenommene Europäische Norm als DIN-Norm ist 2016-03-01.

Nationales Vorwort

Vorausgegangener Norm-Entwurf: E DIN EN 62769-101-1:2014-05.

Für dieses Dokument ist das nationale Arbeitsgremium K 956 „Feldbus“ der DKE Deutsche Kommission Elektrotechnik Elektronik Informationstechnik in DIN und VDE (www.dke.de) zuständig.

Die enthaltene IEC-Publikation wurde vom SC 65E „Devices and integration in enterprise systems“ erarbeitet.

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Da sich die Benutzer der vorliegenden Norm der englischen Sprache als Fachsprache bedienen, wird die Englische Fassung der EN 62769-101-1 veröffentlicht. Zu deren Abschnitt 1, der den Anwendungsbereich festlegt, und deren Abschnitt 3 (teilweise), der die Begriffe festlegt, wurde eine Übersetzung angefertigt und als informativer Nationaler Anhang NA der vorliegenden Norm hinzugefügt. Für die meisten der verwendeten Begriffe existieren keine gebräuchlichen deutschen Benennungen, da sich die deutschen Anwender in der Regel ebenfalls der englischen Benennungen bedienen. Diese Norm steht nicht in unmittelbarem Zusammenhang mit Rechtsvorschriften und ist nicht als Sicherheitsnorm anzusehen.

Nationaler Anhang NA (informativ)

1 Anwendungsbereich^{N1)}

Dieser Teil von IEC 62769 legt ein FDI-Profil nach IEC 62769 für IEC 61784-1_CP1/1 (FOUNDATION™-Fieldbus H1)¹ fest.

3 Begriffe, Abkürzungen und Konventionen

3.1 Begriffe

Für die Anwendung dieses Dokumentes gelten die Begriffe nach IEC 61158-5-9, IEC 61784-1, IEC 61784-2, IEC 61784-3, IEC 61804, IEC 62541-100, IEC 62769-2, IEC 62769-4, IEC 62769-5, IEC 62769-6 und IEC 62769-7.

^{N1)} Nationale Fußnote: Die Nummerierung der IEC 62769-101-1:2015 wurde beibehalten.

¹ FOUNDATION™ Fieldbus ist der Handelsname des gemeinnützigen Konsortiums „Fieldbus Foundation“. Diese Angabe dient nur der Unterrichtung der Anwender dieser Norm und bedeutet keine Anerkennung des Inhabers des Warenzeichens oder eines seiner Produkte durch die IEC. Die Übereinstimmung mit dieser Norm erfordert nicht die Verwendung des Handelsnamens. Die Verwendung des Handelsnamens erfordert die Erlaubnis seines Inhabers.

– Leerseite –

English Version

Field Device Integration (FDI) – Part 101-1: Profiles –
Foundation Fieldbus H1
(IEC 62769-101-1:2015)

Intégration des appareils de terrain (FDI) – Partie 101-1:
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(IEC 62769-101-1:2015)

Feldgeräteintegration (FDI) – Teil 101-1: Profile –
Foundation Fieldbus H1
(IEC 62769-101-1:2015)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

Foreword

The text of document 65E/352/CDV, future edition 1 of IEC 62769-101-1, 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 62769-101-1:2015.

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) 2016-03-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-06-23

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62769-101-1:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 62769-3:2015 NOTE Harmonized as EN 62769-3 ¹⁾.

1) To be published.

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INTRODUCTION

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents concerning

- a) Method for the Supplying and Installation of Device-Specific Functionalities, see Patent Family DE10357276;
- b) Method and device for accessing a functional module of automation system, see Patent Family EP2182418;
- c) Methods and apparatus to reduce memory requirements for process control system software applications, see Patent Family US2013232186;
- d) Extensible Device Object Model, see Patent Family US12/893,680.

IEC takes no position concerning the evidence, validity and scope of this patent right.

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FIELD DEVICE INTEGRATION (FDI) –

Part 101-1: Profiles – Foundation Fieldbus H1

1 Scope

This part of IEC 62769 specifies an FDI profile of IEC 62769 for IEC 61784-1_CP 1/1 (FOUNDATION™ Fieldbus H1)¹.

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 61158-5-9:2014, *Industrial communication networks - Fieldbus specifications - Part 5-9: Application layer service definition - Type 9 elements*

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 61784-3:2010, *Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions*

IEC 61804 (all parts), *Function blocks (FB) for process control*

IEC 62541-100:2015, *OPC Unified Architecture – Part 100: OPC UA for Devices*

NOTE IEC 62769-1 is technically identical to FDI-2021.

IEC 62769-2, *Field Device Integration (FDI) – Part 2: FDI Client*

NOTE IEC 62769-2 is technically identical to FDI-2022.

IEC 62769-4:2015, *Field Device Integration (FDI) – Part 4: FDI Packages*

NOTE IEC 62769-4 is technically identical to FDI-2024.

IEC 62769-5:2015, *Field Device Integration (FDI) – Part 5: FDI Information Model*

NOTE IEC 62769-5 is technically identical to FDI-2025.

IEC 62769-6, *Field Device Integration (FDI) – Part 6: FDI Technology Mapping*

NOTE IEC 62769-6 is technically identical to FDI-2026.

¹ FOUNDATION™ Fieldbus is the trade name of the non-profit consortium Fieldbus Foundation. This information is given for the convenience of users of this standard and does not constitute an endorsement by IEC of the trademark holder or any of its products. Compliance does not require use of the trade name. Use of the trade name requires permission of the trade name holder.

IEC 62769-7:42015–, *Field Device Integration (FDI) – Part 7: FDI Communication Devices*

NOTE IEC 62769-7 is technically identical to FDI-2027.

3 Terms, definitions, abbreviated terms and acronyms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61158-5-9, IEC 61784-1, IEC 61784-2, IEC 61784-3, IEC 61804, IEC 62541-100, IEC 62769-2, IEC 62769-4, IEC 62769-5, IEC 62769-6 and IEC 62769-7 apply.

3.2 Abbreviated terms and acronyms

For the purposes of this document, the following abbreviations apply:

CFF	common file format
CP	communication profile (see IEC 61784-1 or IEC 61784-2)
CPF	communication profile family (see IEC 61784-1 or IEC 61784-2)
EDD	Electronic Device Description (see IEC 61804)
FB	function block
IM	Information Model
SMIB	system management information base
VFD	virtual field device

4 Conventions

4.1 EDDL syntax

This part of IEC 62769 specifies content for the EDD component that is part of an FDI Communication Package. EDDL syntax uses the font `Courier New`. EDDL syntax is used for method signature, variable, data structure and component declarations.

4.2 XML syntax

XML syntax examples use the font `Courier New`. The XML syntax is used to describe XML document schema.

EXAMPLE: `<xsd:simpleType name="Example">.`

4.3 Capitalizations

The IEC 62769 series uses capitalized terms to emphasize that these terms have an FDI specific meaning.

Some of these terms use an acronym as a prefix for example

- FDI Client, or
- FDI Server.

Some of these terms are compound terms such as:

- Communication Servers, or
- Profile Package.