BS EN 62769-109-1:2015

BSI Standards Publication

Field Device Integration (FDI)

Part 109-1: Profiles — HART(r) and WirelessHART(r)

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National foreword

This British Standard is the UK implementation of EN 62769-109-1:2015. It is identical to IEC 62769-109-1:2015.

The UK participation in its preparation was entrusted to Technical Committee AMT/7, Industrial communications: process measurement and control, including fieldbus.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2015.

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EUROPEAN STANDARD

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English Version

Field Device Integration (FDI) - Part 109-1: Profiles - HART(r) and WirelessHART(r) (IEC 62769-109-1:2015)

Intégration des appareils de terrain (FDI) - Partie 109-1: Profils - HART(r) et WirelessHART(r) (IEC 62769-109-1:2015)

Feldgeräteintegration (FDI) - Profile - Teil 109-1: HART(r) und WirelessHART(r) (IEC 62769-109-1:2015)

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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

Foreword

The text of document 65E/356/CDV, future edition 1 of IEC 62769-109-1, 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 62769-109-1:2015.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-06-23

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The text of the International Standard IEC 62769-109-1:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated :

IEC 61784-1	NOTE	Harmonized as EN 61784-1.
IEC 61784-2	NOTE	Harmonized as EN 61784-2.
IEC 61804 (series)	NOTE	Harmonized as EN 61804 (series).
IEC 62769-1	NOTE	Harmonized as EN 62769-1.
IEC 62769-2	NOTE	Harmonized as EN 62769-2.
IEC 62769-3	NOTE	Harmonized as EN 62769-3 [1)]
IEC 62769-6	NOTE	Harmonized as EN 62769-6.

1) To be published.

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.

Publication	Year	Title	EN/HD	Year
IEC 62541-100	-	OPC unified architecture - Part 100: Device Interface	EN 62541-100	-
IEC 62769-4	2015	Field Device Integration (FDI) - Part 4: FDI-Packages		-
IEC 62769-5	-	Field Device Integration (FDI) - Part 5: FDI-Information Model		-
IEC 62769-7	-	Field Device Integration (FDI) - Part 7: FDI-Communication Devices		-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIELD DEVICE INTEGRATION (FDI) –

Part 109-1: Profiles – HART® and WirelessHART®

FOREWORD

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International Standard IEC 62769-109-1 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

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

CDV	Report on voting
65E/356/CDV	65E/419/RVC

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 62769 series, published under the general title *Field Device Integration (FDI)*, can be found on the IEC website.

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.

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.

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FIELD DEVICE INTEGRATION (FDI) –

Part 109-1: Profiles – HART® and WirelessHART®

1 Scope

This part of IEC 62769 specifies an FDI profile of IEC 62769 for IEC 61784-1_CP 9/1 (HART®)[1] and IEC 61784-1_CP 9/2 (WirelessHART®)[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 62541-100, *OPC unified architecture – Part 100: Device Interface*

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, *Field Device Integration (FDI) – Part 5: FDI Information Model*

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

IEC 62769-7, *Field Device Integration (FDI) – Part 7: 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 62541-100, IEC 62769-4, IEC 62769-5 and IEC 62769-7 apply.

3.2 Abbreviated terms and acronyms

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

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)
EDDL	Electronic Device Description Language (see IEC 61804)
FDI	Field Device Integration

[1] HART and WirelessHART are the trade names of the non-profit consortium HART Communication Foundation, Austin,Texas, USA. This information is given for the convenience of users of this document 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 names. Use of the trade names requires permission of the trade name holder.