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**Field device integration (FDI) –
Part 109-1: Profiles – HART® and WirelessHART®**

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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.

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

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

- a) support for generic protocol extension for faster adoption of other technologies;
- b) support for Package Developers to build EDDs targeted for today's EDD bases system under a single development tool.

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

CDV	Report on voting
65E/624/CDV	65E/687A/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 document 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.

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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.~~

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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 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.

IEC 62541-100:2015, *OPC Unified Architecture Specification – Part 100: Device Interface*

IEC 62769-4:2015², *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: FDI Communication Devices*

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

¹ HART® and wirelessHART® are ~~the trade names of the non-profit consortium HART Communication Foundation, Austin, Texas, USA~~ the registered trademark of FieldComm Group. 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~~ the product named. ~~Compliance does not require use of the trade names. Use of the trade names requires permission of the trade name holder.~~ Equivalent products may be used if they can be shown to lead to the same results.

² Under preparation. Stage at the time of publication: IEC/RFDIS 62769-4:2020.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Field device integration (FDI) –
Part 109-1: Profiles – HART® and WirelessHART®**

**Intégration des appareils de terrain (FDI) –
Partie 109-1: Profils – HART® et WirelessHART®**



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FIELD DEVICE INTEGRATION (FDI) –

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

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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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² Under preparation. Stage at the time of publication: IEC/RFDIS 62769-4:2020.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 109-1: Profils – HART® et WirelessHART®

AVANT-PROPOS

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Cette deuxième édition annule et remplace la première édition parue en 2015. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) prise en charge d'extensions de protocoles génériques, pour une adoption plus rapide d'autres technologies;
- b) capacité offerte aux Développeurs de Paquetages d'élaborer des EDD ciblant les systèmes actuels de bases EDD, en exploitant un seul outil de développement.

Le texte de cette Norme internationale est issu des documents suivants:

CDV	Rapport de vote
65E/624/CDV	65E/687A/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de la présente Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 62769, publiées sous le titre général *Intégration des appareils de terrain (FDI)*, peut être consultée sur le site web de l'IEC.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous "<http://webstore.iec.ch>" dans les données relatives au document recherché. A cette date, le document sera

- reconduit,
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- remplacé par une édition révisée, ou
- amendé.

INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 109-1: Profils – HART® et WirelessHART®

1 Domaine d'application

La présente partie de l'IEC 62769 spécifie un profil FDI de l'IEC 62769 pour l'IEC 61784-1_CP 9/1 (HART®)¹ et l'IEC 61784-1_CP 9/2 (WirelessHART®)¹.

2 Références normatives

Les documents suivants cités dans le texte constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 62541-100:2015, *Architecture unifiée OPC – Partie 100: Interface d'appareils*

IEC 62769-4:–², *Intégration des appareils de terrain (FDI) – Partie 4: Paquetages FDI*

IEC 62769-5, *Intégration des appareils de terrain (FDI) – Partie 5: Modèle d'Information FDI*

IEC 62769-7, *Intégration des appareils de terrain (FDI) – Partie 7: Appareils de communication FDI*

¹ HART® et WirelessHART® sont des marques déposées de FieldComm Group. Cette information est donnée à l'intention des utilisateurs du présent document et ne signifie nullement que l'IEC approuve ou recommande l'emploi exclusif du produit ainsi désigné. Des produits équivalents peuvent être utilisés, s'il peut être attesté qu'ils donnent les mêmes résultats.

² En cours de préparation. Stade au moment de la publication: IEC/RFDIS 62769-4:2020.