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INTERNATIONAL STANDARD

colour inside

Field device integration (FDI®) – Part 100: Profiles – Generic Protocols

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIELD DEVICE INTEGRATION (FDI®) –

Part 100: Profiles – Generic Protocols

FOREWORD

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IEC 62769-100 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

This second edition cancels and replaces the first edition published in 2020. This edition constitutes a technical revision.

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

a) added ExtendedDeviceRevision implementing the FDI® Version scheme and the method ScanExtended.

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

Draft	Report on voting
65E/865/CDV	65E/922/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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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FIELD DEVICE INTEGRATION (FDI®) –

Part 100: Profiles – Generic Protocols

1 Scope

This part of IEC 62769 specifies an FDI®[1] profile of IEC 62769 for Generic Protocols. That means that all interfaces are defined and a host can add support for more protocols without changing its implementation. Nevertheless, there are some protocol specific definitions (PSD) that need to be specified per protocol using this profile. Annex C specifies what PSD need to be defined per protocol so that FDI® Device Packages, FDI® Communication Packages for Gateways and FDI® Communication Servers, FDI® Communication Server, Gateways and Devices supporting such a protocol can work together in a host not aware about this specific protocol.

NOTE A host not using FDI® Communication Server but a proprietary mechanism for communication ~~defines~~ needs to define its own means to deal with this profile to support several protocols without changing its implementation. This is specific to the proprietary way how the communication driver is bound to the host.

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 61804 (all parts), *Devices and integration in enterprise systems − Function blocks (FB) for process control and Electronic Device Description Language (EDDL)*

IEC 61804-3, *Devices and integration in enterprise systems − Function blocks (FB) for process control and electronic device description language (EDDL) − Part 3: EDDL syntax and semantics*

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

IEC 62769-1, *Field Device Integration (FDI®) – Part 1: Overview*

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

IEC 62769-3, *Field Device Integration (FDI®) – Part 3: Server*

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

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

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

IEC 62769-151-1, *Field Device Integration (FDI®) – Part 151-1: Profiles – OPC UA*

IEC 62769-100

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Field device integration (FDI®) – Part 100: Profiles – Generic Protocols

Intégration des appareils de terrain (FDI®) – Partie 100: Profils – Protocoles Génériques

IEC 62769-100:2023-04(en-fr)

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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: Communication Devices*

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IEC 62769-151-1, *Field Device Integration (FDI®) – Part 151-1: Profiles – OPC UA*

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INTÉGRATION DES APPAREILS DE TERRAIN (FDI®) –

Partie 100: Profils – Protocoles Génériques

AVANT-PROPOS

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Cette deuxième édition annule et remplace la première édition parue en 2020. Cette édition constitue une révision technique.

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

a) ajout d'ExtendedDeviceRevision qui met en œuvre le schéma de version FDI® et la méthode ScanExtended.

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

Projet	Rapport de vote
65E/865/CDV	65E/922/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

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INTÉGRATION DES APPAREILS DE TERRAIN (FDI®) –

Partie 100: Profils – Protocoles Génériques

1 Domaine d'application

La présente partie de l'IEC 62769 spécifie un profil FDI®[1] de l'IEC 62769 pour les Protocoles Génériques. Cela signifie que toutes les interfaces sont définies, et qu'un hôte peut ajouter une prise en charge pour davantage de protocoles sans modifier la mise en œuvre. Néanmoins, certaines définitions spécifiques au protocole (PSD) nécessitent d'être spécifiées à l'aide de ce profil. L'Annexe C spécifie les PSD qu'il est nécessaire de définir par protocole, de sorte que les Paquetages d'Appareils FDI®, les Paquetages de Communication FDI® pour les Passerelles et les Serveurs de Communication FDI®, le Serveur de Communication FDI®, les Passerelles et les Appareils qui prennent en charge ce type de protocole puissent fonctionner ensemble dans un hôte, quel que soit ce protocole spécifique.

NOTE Un hôte qui n'utilise pas de Serveur de Communication FDI® mais un mécanisme propriétaire pour sa communication nécessite de définir ses propres moyens de gérer ce profil de manière à prendre en charge différents protocoles sans modifier sa mise en œuvre.

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Les documents suivants sont cités dans le texte de sorte qu'ils 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 61804 (toutes les parties), *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)*

IEC 61804-3, *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 3: Sémantique et syntaxe EDDL*

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

IEC 62769-1*, Intégration des appareils de terrain (FDI®) – Partie 1: Vue d'ensemble*

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

IEC 62769-3, *Intégration des appareils de terrain (FDI®) – Partie 3: Serveur*

IEC 62769-4, *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*

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