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# INTERNATIONAL STANDARD



Field Device Integration (FDI)<sup>®</sup> –  
Part 103-4: ~~Profiles~~ – PROFINET

INTERNATIONAL  
ELECTROTECHNICAL  
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### FIELD DEVICE INTEGRATION (FDI®) –

### Part 103-4: ~~Profiles~~ – PROFINET

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IEC 62769-103-4 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 third edition cancels and replaces the second 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 DeviceType to ProfinetIdentificationT;
- b) added namespace to Annex A and Annex B;
- c) added mapping rule for Device type when running in profile mode;
- d) replaced GSD file with GSDML file, detailing of device type mapping;
- e) added mapping to PA DIM.

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

| Draft       | Report on voting |
|-------------|------------------|
| 65E/863/CDV | 65E/920/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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## FIELD DEVICE INTEGRATION (FDI®) –

### Part 103-4: ~~Profiles~~ – PROFINET

#### 1 Scope

This part of IEC 62769 specifies an FDI<sup>®1</sup> profile of IEC 62769 for IEC 61784-2\_CP 3/4, IEC 61784-2\_CP3/5 and IEC 61784-2\_CP3/6 (PROFINET<sup>2</sup>).

#### 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 61158-5-10, *Industrial communication networks – Fieldbus specifications – Part 5-10: Application layer service definition – Type 10 elements*

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

IEC 61804 (all parts), *Devices and integration in enterprise systems – Function blocks (FB) for process control and electronic device description language (EDDL)*

IEC 62541-100:2015, *OPC unified architecture – Part 100: Device Interface*

IEC 62769-2, *Field device integration (FDI<sup>®</sup>) – Part 2: ~~FDI~~-Client*

IEC 62769-4, *Field device integration (FDI<sup>®</sup>) – Part 4: FDI<sup>®</sup> Packages*

IEC 62769-5, *Field device integration (FDI<sup>®</sup>) – Part 5: ~~FDI~~-Information Model*

IEC 62769-6, *Field device integration (FDI<sup>®</sup>) – Part 6: ~~FDI~~-Technology Mapping*

IEC 62769-7, *Field device integration (FDI<sup>®</sup>) – Part 7: ~~FDI~~-Communication devices*

PI Order No.: 2.122:2008, *Specification for PROFIBUS – Device Description and Device Integration – Volume 1: GSD, V5.1, July 2008: GSD*; available at <[www.PROFIBUS.com](http://www.PROFIBUS.com)>

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PI Order No.: 2.352:2014, *GSDML Specification for PROFINET IO*; available at  
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**Field Device Integration (FDI)<sup>®</sup> –  
Part 103-4: PROFINET**

**Intégration des appareils de terrain (FDI)<sup>®</sup> –  
Partie 103-4: PROFINET**



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### Part 103-4: PROFINET

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### Part 103-4: PROFINET

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IEC 62769-2, *Field device integration (FDI®) – Part 2: Client*

IEC 62769-4, *Field device integration (FDI®) – Part 4: FDI® Packages*

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IEC 62769-6, *Field device integration (FDI®) – Part 6: Technology Mapping*

IEC 62769-7, *Field device integration (FDI®) – Part 7: Communication devices*

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### INTÉGRATION DES APPAREILS DE TERRAIN (FDI®) –

#### Partie 103-4: PROFINET

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L'IEC 62769-103-4 a été établie par le sous-comité 65E: Les dispositifs et leur intégration dans les systèmes de l'entreprise, du comité d'études 65 de l'IEC: Mesure, commande et automation dans les processus industriels. Il s'agit d'une Norme internationale.

Cette troisième édition annule et remplace la deuxième 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 de DeviceType à ProfinetIdentificationT;
- b) ajout d'un espace de noms à l'Annexe A et à l'Annexe B;
- c) ajout d'une règle de mapping pour le type d'appareil lors d'une exécution en mode profil;

- d) remplacement du fichier GSD par le fichier GSDML, plus précis en ce qui concerne le mapping du type d'appareil;
- e) ajout du mapping avec le PA DIM (Process Automation Device Information Model).

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

| Projet      | Rapport de vote |
|-------------|-----------------|
| 65E/863/CDV | 65E/920/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.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). Les principaux types de documents développés par l'IEC sont décrits plus en détail sous [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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

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# INTÉGRATION DES APPAREILS DE TERRAIN (FDI®) –

## Partie 103-4: PROFINET

### 1 Domaine d'application

La présente partie de l'IEC 62769 spécifie un profil FDI<sup>1</sup> de l'IEC 62769 pour les profils de communication CP 3/4, CP 3/5 et CP 3/6 (PROFINET<sup>2</sup>) définis dans l'IEC 61784-2.

### 2 Références normatives

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 61158-5-10, *Réseaux de communication industriels – Spécifications des bus de terrain – Partie 5-10: Définition des services de la couche application – Eléments de type 10*

IEC 61784-2, *Réseaux de communication industriels – Profils – Partie 2: Profils de bus de terrain supplémentaires pour les réseaux en temps réel fondés sur l'ISO/IEC/IEEE 8802-3*

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

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

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*

IEC 62769-6, *Intégration des appareils de terrain (FDI®) – Partie 6: Mapping de technologies*

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

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Spécification PI n° 2.122:2008, *Specification for PROFIBUS – Device Description and Device Integration – Volume 1: GSD, V5.1, juillet 2008: GSD*, disponible en anglais à l'adresse <[www.PROFIBUS.com](http://www.PROFIBUS.com)>

Spécification PI n° 2.352:2014, *GSDML Specification for PROFINET IO*, disponible en anglais à l'adresse <[www.PROFIBUS.com](http://www.PROFIBUS.com)>