IEC 62769-103-1

Edition 2.0 2020-04
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

Field device integration (FDI) – Part 103-1: Profiles – PROFIBUS

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 25.040.40; 35.100.05

ISBN 978-2-8322-8290-8

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FIELD DEVICE INTEGRATION (FDI) –

Part 103-1: Profiles – PROFIBUS

FOREWORD

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International Standard IEC 62769-103-1 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/622/CDV	65E/685A/RVC 65E/685/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.

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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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Intellectual Property, Licenses & Standards
Flachsmarktstrasse 8, 32825 Blomberg
Germany

c) Fisher Controls International LLC
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FIELD DEVICE INTEGRATION (FDI) –

Part 103-1: Profiles – PROFIBUS

1 Scope

This part of IEC 62769 specifies an FDI profile of IEC 62769 for IEC 61784-1_CP 3/1 (PROFIBUS DP)[1] and IEC 61784-1_CP3/2 (PROFIBUS PA)[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 61784-1, *Industrial communication networks – Profiles – Part 1: Fieldbus profiles*~~

IEC 61804 (all parts), *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[2], *Field Device Integration (FDI) - Part 2: FDI Client*

~~NOTE 1 IEC 62769-2 is technical identical to FDI-2022.~~

IEC 62769-4[3], *Field Device Integration (FDI) – Part 4: FDI Packages*

~~NOTE 2 IEC 62769-4 is technically identical to FDI-2024.~~

IEC 62769-5[4], *Field Device Integration (FDI) – Part 5: FDI Information Model*

~~NOTE 3 IEC 62769-5 is technically identical to FDI-2025.~~

IEC 62769-7[5], *Field Device Integration (FDI) – Part 7: FDI Communication Devices*

~~NOTE 4 IEC 62769-7 is technically identical to FDI-2027.~~

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> [viewed 2018-11-23]

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

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

4 Under preparation. Stage at the time of publication: IEC/RFDIS 62769-5:2020.

5 Under preparation. Stage at the time of publication: IEC/RFDIS 62769-7:2020.

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INTERNATIONAL STANDARD

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5 Under preparation. Stage at the time of publication: IEC/RFDIS 62769-7:2020.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 103-1: Profils – PROFIBUS

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/622/CDV	65E/685A/RVC 65E/685/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.

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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.

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INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 103-1: Profils – PROFIBUS

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 3/1 (PROFIBUS DP)[1] et l'IEC 61784-1_CP 3/2 (PROFIBUS PA)[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 61804 (toutes les parties), *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[2], *Intégration des appareils de terrain (FDI) – Partie 2: Client FDI*

IEC 62769-4[3], *Intégration des appareils de terrain (FDI) – Partie 4: Paquetages FDI*

IEC 62769-5[4], *Intégration des appareils de terrain (FDI) – Partie 5: Modèle d'Information FDI*

IEC 62769-7[5], *Intégration des appareils de terrain (FDI) – Partie 7: Appareils de communication FDI*

Spécification PI N° 2.122:2008, *Specification for PROFIBUS – Device Description and Device Integration – Volume 1: GSD Specification, V5.1, juillet 2008, GSD;* disponible à l'adresse <www.profibus.com> (disponible en anglais seulement) [consultée 2018-11-23]

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